Value capture mechanisms to fund transport infrastructure

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- Peter Casey, Regional Manager, NZTA
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- Teena Pennington, Director – Strategy, Wellington City Council
- Matthew Richards, Senior Planner, NZTA
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- Kevin Wright, Manager Transport Strategy, Auckland Council.

Throughout this research project we had a number of Steering Group meetings in order to obtain feedback, comments and discussion on the research outputs. The project team would like to thank the members of the Steering Group for their time and helpful comments.

Further, to assist with our analysis on the limitations and barriers with the current use of value capture mechanisms within New Zealand, we undertook a series of interviews with local councils and other interested parties. This allowed for more detailed targeted discussions to allow identification of the potential barriers and impediments for implementing alternative funding mechanisms in New Zealand. The stakeholders interviewed were selected by the Steering Group and included central, local and regional governments and private sector organisations. The information gained in these interviews was invaluable and provided us with context surrounding the use and potential use of value capture mechanisms in New Zealand. This report has benefited considerably from the discussions with, and information provided by, the organisations over the course of this study. The project team would like to thank the individuals who provided assistance.

Abbreviations and acronyms

CBD	Central business district
FAR	Funding assistance rate
GFC	Global financial crisis
GPS	Government Policy Statement on Land Transport Funding
LGA	Local Government Act 2002
LTMA	Land Transport Management Act 2003
LTP	Long-term plan
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
NZTA	New Zealand Transport Agency
RMA	Resource Management Act 1991
TIF	Tax increment financing

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Executive summary

NERA Economic Consulting, in collaboration with Ian Wallis Associates, was funded by the New Zealand Transport Agency (NZTA) to conduct research on behalf of the transport sector into the use of value capture mechanisms to fund transport investment in New Zealand. The aim of the research was to identify the impediments and barriers to the use of value capture mechanisms in New Zealand. The research was carried out in New Zealand during 2011–12.

Local authorities (ie city, district and regional councils) in New Zealand are required to co-contribute to the cost of maintaining and upgrading transport infrastructure within their areas. Typically, this means that the local authority component of transport infrastructure costs is funded by all land owners within the area through general rates, irrespective of whether they directly benefit from the infrastructure. However, throughout the world transport infrastructure is increasingly being funded by charges that more closely target the direct beneficiaries of the infrastructure. These charges can take the form of direct user charges (eg tolls) and/or value capture mechanisms, which are charges on land owners (who are longer-term investors) or developers (who are shorter-term investors).

In general, although transport investment can have a mixed or negative impact on land value, land owners and developers usually benefit from transport infrastructure because of the increased accessibility. This results in increased land value. Importantly, landowners and developers may not directly use the transport infrastructure – the beneficiaries of transport infrastructure are often not one and the same as the users.

Value capture mechanisms aim to 'capture' part of the incremental increase in land value that results from transport investment. It aligns the recovery of costs associated with providing infrastructure with the beneficiaries of those costs. This is simply the application of the 'beneficiary-pays' principle – ie where a service provides a benefit, those who benefit should pay for the cost of providing that benefit.

In New Zealand there are a number of mechanisms available to local authorities for charging landowners and/or developers for transport infrastructure costs, namely:

- development contributions (under the Local Government Act 2002), which are focused on recovering growth-related costs from developers who benefit from infrastructure through higher sale prices
- financial contributions (under the Resource Management Act 1991), which are focused on recovering environmental costs (eg those associated with mitigating, avoiding or remedying negative environmental consequences) from developers who benefit from infrastructure through higher sale prices
- targeted rates (under the Local Government (Rating) Act 2002), which are focused on recovering funds from a 'targeted' group of individuals that may directly benefit from, or be impacted on, projects.[1]

All three of these existing funding mechanisms are value capture mechanisms, given the scope for them to target the beneficiaries of transport infrastructure directly as compared with other funding sources such as consolidated revenue.

In the face of legislative constraints, some local authorities have also negotiated funding mechanisms outside any legislative or regulatory framework. These agreements do not explicitly refer to a development contributions policy.

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1 We note that ratings in general are often argued to provide a value uplift type of taxation mechanism.

We consider that the current legislative framework in New Zealand is very enabling in terms of the mechanisms that can be applied to levy 'value' from beneficiaries. Consequently, many of the commonly cited international mechanisms (such as 'tax increment financing') can be implemented as a variation to existing charging mechanisms – eg targeted rates. However, we identified some improvements that could be made to these mechanisms in order to enable their more ready application in New Zealand. We set out our conclusions on each of these mechanisms below.

Development contributions

Development contributions are used by territorial authorities to fund transport infrastructure (as well as water, wastewater and other community infrastructure).[2] This promotes efficient land use since it forces developers to consider the costs of the additional infrastructure caused by development. Moreover, it attributes the costs associated with development to those who benefit directly, and so reduces the amount to be recovered from the general ratepayer base. In general, we reached the following conclusions:

- Councils have improved their application of development contributions over time, with increased understanding of the costs associated with development evident, and we expect this learning to increase as more experience is gained.
- There is scope to contemplate extending the application of development contributions to entities other than territorial authorities, which would allow the ready application of development contributions to large transport infrastructure projects.[3]
- There is scope to investigate the extension of development contributions to fund operating and maintenance expenditure, in addition to the costs of the initial infrastructure investment – this could include future research investigating how this modelling could occur.
- The ability to create 'subregional' development contributions policies should be investigated – ie development contribution policies that cover multiple local authorities. This would improve strategic planning across the network. Although formalisation of this might require fiscal consolidation of councils, we consider that there would be significant benefits from informal discussions on these issues.

Financial contributions

Since the introduction of development contributions in 2002, financial contributions have not been used as extensively, primarily due to being effects based and open to merits-based appeals. Financial contributions can be used effectively where there are some limitations with the use of development contributions (eg by territorial authorities to fund public transport infrastructure). However, the requirement for the infrastructure to address environmental effects, and the likelihood of appeals, discourages many councils from using them.

Targeted rates

The use of targeted rates depends upon the council's opinion on whether a more users-pays approach is appropriate. However, we believe that there is scope to use targeted rates more effectively. Indeed,

2 We note that it is more difficult to identify beneficiaries in an open-access network, such as roading, than in other networks, such as water and wastewater, where end users can more easily be specified.

3 That said, there may be legitimate reasons why development contributions, as set out in the Local Government Act, have not previously been extended beyond its use by territorial authorities. We did not investigate these reasons as part of this project.

lessons can be learnt from the application of targeted rates by other councils (eg in Southland). Targeted rates have the potential to improve the efficiency of funding infrastructure, and so better reflect the costs and benefits that individuals impose on and receive from infrastructure. Moreover, they may also be a more practical mechanism of charging ongoing operating costs.

If targeted rates are to be used more frequently, then we believe that the application and calculation should be transparent, and subject to clear guidelines for their use. For example, case study examples or further work into how targeted rates can be applied more broadly should be undertaken. This would enable the application of this mechanism by councils.

Other negotiated mechanisms

Several councils have addressed limitations with the current funding mechanisms by using other negotiated mechanisms to provide funding flexibility. These mechanisms are simply contracts between the council and the third party. These mechanisms have a large number of advantages (eg being more flexible in meeting the particular funding needs), but have the disadvantage of reduced transparency and large administrative costs.

We consider that the use of these negotiated mechanisms might therefore be usefully expanded by councils. However, to promote consistency in application of these mechanisms, councils should consider developing a policy or series of best-practice guidelines for these one-off funding mechanisms.

Choosing a value capture mechanism

Choosing a value capture mechanism to fund transport infrastructure should be guided by the existing legislative requirements of each mechanism and the circumstances within which funding is being sought. As well, potential legislative constraints to alternative funding mechanisms (eg tax increment funding) should be considered further, to develop recommendations for legislative change. The four key factors that should be considered are the choice of non-user beneficiary targeted; whether a one-off or ongoing charge is more appropriate; the incentives created; and the level of public acceptability.

The use of a value capture mechanism should be considered on a case-by-case basis, depending upon the relevant circumstances. Indeed, while some particular mechanisms are more appropriate in particular circumstances, we emphasise that the *individual* circumstances should be considered each and every time. The necessary considerations in the establishment or implementation of a value capture mechanism are explored more fully in the stand-alone guide for local authorities titled *Using value capture mechanisms to fund transport infrastructure: a guide for local authorities,* in appendix C of this report.

Value capture mechanisms should be examined as one of a number of funding sources for a given project, reflecting that the beneficiaries are likely to be wider than simply identifiable land owners and/or developers. The proportion of the costs that should be appropriately recovered from these charges will necessarily require consideration to be given to the city-wide benefits that ensue from a proposed transport infrastructure project, including wider benefits through increased developer competition impacting on city-wide house prices and rents.

Abstract

Throughout the world, transport infrastructure is increasingly being funded by charges that more closely target the direct beneficiaries of the infrastructure. One form these charges can take is a levy on land owners or developers – ie value capture mechanisms. In New Zealand there are a number of mechanisms that can be defined as value capture mechanisms: development contributions, financial contributions, targeted rates, and other negotiated mechanisms that sit outside of legislation (ie do not refer to policies contained in a council's long-term plan).

This report outlines the experience to date in using these mechanisms and highlights a number of limitations with, and barriers to, the current use of them in New Zealand. This research suggests that the current legislative framework for charging land owners and/or developers in New Zealand provides the basis for introducing charges that levy the beneficial 'value' obtained from transport infrastructure investments. It suggests a number of improvements to these mechanisms that should be investigated in order to increase the feasibility of these mechanisms, and many of the commonly cited international mechanisms (such as 'tax increment financing') could be implemented as variations to existing mechanisms.

1 Introduction

1.1 Project overview

NERA Economic Consulting, in collaboration with Ian Wallis Associates (hereafter the 'project team'), were funded by the NZ Transport Agency (NZTA) to conduct research on behalf of the transport sector into the use of value capture mechanisms to fund transport investment in New Zealand. The research was carried out during 2011–12.

This project was undertaken within the context of concerns in New Zealand about the availability and flexibility of both the funds needed and the mechanisms used for obtaining funds for transport investments. These transport investments include both road and public transport infrastructure and services. Traditionally, transport investments in New Zealand have been funded primarily through user charges and general government revenue (either central government taxes or local government rates). More recently there has been increased use of charges to land owners and developers as beneficiaries of transport infrastructure. Such charges are often collectively known as 'value capture mechanisms'.

These value capture mechanisms (eg development and financial contributions, and targeted rates)[4] aim to 'capture' part of the increase in land 'value' that results from transport infrastructure investments – ie the value associated with increased accessibility. These mechanisms have the potential to provide:

- additional and potentially more flexible funds for transport projects that might not otherwise be undertaken, given current funding arrangements
- opportunities for a more efficient allocation of funds to be used in existing transport projects – ie to reduce cross-subsidies within the community.

Relevantly, the current legislative framework for charging land owners and/or developers in New Zealand provides the basis for introducing charges that levy the beneficial 'value' obtained from transport infrastructure investments. Consequently, many of the commonly cited international mechanisms (such as 'negotiated mechanisms' or 'tax increment financing') can be implemented as a variation to existing land owner charging mechanisms. This means that considering the opportunities for greater use of value capture mechanisms is mostly a question of thinking about the current charging framework's impediments or limitations to greater use of charges targeting land value changes, rather than thinking about how a new mechanism might be introduced.

The aim of this report is to focus on identifying the impediments with, and barriers to, the use of value capture mechanisms in New Zealand. It also identifies the circumstances under which these mechanisms might be more appropriately applied in order to fund transport infrastructure. Indeed, this report is consistent with the governments' advice on the Auckland Spatial Plan, which expressed central governments' view on alternative funding mechanisms. Specifically, it considered that the Auckland Council should 'develop and adopt smarter, fit-for-purpose funding tools and financial instruments to support the objectives of the spatial plan'. Moreover, it was noted that governance reforms in Auckland provided opportunities to 'review the current use of regulatory instruments that distort price signals and

4 We note that general rates also have a component of 'value capture' in them. However, since 'targeted rates' can be concentrated on a particular area, they are more representative of pure 'value capture' mechanisms. Targeted rates are therefore a focus in this report.

oppose the preferences of Aucklanders; and develop and adopt smarter, fit-for-purpose financial instruments to support Auckland's spatial plan objectives' (Central Government 2011).

That said, while the focus in this research report is on using these mechanisms to fund transport infrastructure, there are many parallels between funding transport and other public infrastructure such as water and wastewater infrastructure. Indeed, many of the value capture mechanisms that are currently used by local councils are used to fund infrastructure broadly – eg development contributions are used to fund transport, reserves, water, wastewater and stormwater. Accordingly, the mechanisms examined in this research can be used more broadly to fund other types of infrastructure.

Our focus in this report is on funding mechanisms for a transport infrastructure project that has been identified as delivering benefits in excess of costs. This is distinct from the process of determining whether a transport infrastructure project should proceed. As with any transport infrastructure project, any projects funded in total or in part through value capture mechanisms should be based on the priorities developed through a council's long-term plan, where the projects are supported by robust businesses cases that clearly identify how the benefits of investment outweigh the costs. The National Infrastructure Unit has produced guidelines as to how business cases should be undertaken, and this provides useful guidance to councils.[5]

We note that other relevant decision-making frameworks for transport infrastructure projects should also be followed, such as the NZTA funding assessment framework and local government long-term plans. Importantly, exploring the use of value capture mechanisms is likely to assist with the development of a project business case, as it provides additional information on the potential benefits and beneficiaries from a proposed project.

Relevantly, our analysis in this project has been necessarily partial as we have explored the opportunities to make greater use of alternative funding mechanisms for transport infrastructure. We acknowledge that the funding of infrastructure is a complex matter and should involve consideration of the incentives created throughout the economy – including for land owners, developers, and businesses. Ultimately the form of funding mechanism, as well as the level of charges imposed, requires consideration of these matters, which were beyond the scope of this study. That said, the matters relevant to a consideration of the appropriateness of using value capture mechanisms are raised throughout the report.

The purpose of this report is to inform local councils and government agencies in New Zealand about experiences to date in using value capture mechanisms. It draws on our discussions with a number of local councils in New Zealand (described below), in order to bring together a series of 'lessons learnt'. This report is designed to be read primarily by central government policy makers in regards to considering future research to be done on these mechanisms.

Appendix C of this report contains a stand-alone guide for local authorities titled *Using value capture mechanisms to fund transport infrastructure: a guide for local authorities* (Local Authority Guide), which provides guiding principles for considering the application of these funding mechanisms. This is designed to be read by local councils who are seeking to broaden their knowledge base and information about these mechanisms. However, the guide does not provide detailed information on how to calculate charges to land owners for roading projects. The Local Authority Guide mainly focuses on value capture mechanisms as they apply to local councils.

5 See www.infrastructure.govt.nz/publications/betterbusinesscases

1.2 Research process

The research project was guided by an external Steering Group consisting of individuals drawn from central, local and regional governments. Further, to assist with our analysis on the limitations and barriers with the current use of value capture mechanisms within New Zealand, we undertook a series of interviews with local councils[6] and other interested parties. This allowed for more detailed targeted discussions to identify potential barriers and impediments when implementing alternative funding mechanisms in New Zealand. These stakeholders were selected by the Steering Group and included central, local and regional governments and private sector organisations (see a full list of organisations in appendix A).

As background to facilitate discussions, the project team developed a paper to inform key stakeholders about the concept of funding transport investment through the application of value capture mechanisms. This discussion paper, plus a briefing note from the NZTA on the scope of this project, was circulated approximately one week prior to the interview, with the discussion focused on answering questions posed in the discussion paper (see appendix A for the questions). Each discussion took approximately 60–90 minutes. The information gained in these interviews was invaluable and provided us with context surrounding the use and potential use of value capture mechanisms in New Zealand.

A more detailed description of the stakeholder engagement that was undertaken is contained in appendix A.

1.3 Report structure

The remainder of this report is structured as follows:

- Chapter 2 discusses the different 'in principle' mechanisms that are available for funding transport infrastructure.
- Chapter 3 sets out and discusses current methods for funding transport infrastructure in New Zealand.
- Chapter 4 discusses the use of and experience with development contributions in New Zealand.
- Chapter 5 discusses the use of and experience with financial contributions in New Zealand.
- Chapter 6 discusses the use of and experience with targeted rates in New Zealand.
- Chapter 7 discusses the use of and experience with negotiated mechanisms in New Zealand.
- Chapter 8 summarises the limitations with the current mechanisms and so identifies future research areas.
- Chapter 9 discusses the considerations that must be taken into account when considering choosing a value capture mechanism.
- Chapter 10 outlines our conclusions.
- Chapter 11 lists the references for this study.
- Appendix A describes the stakeholder engagement undertaken.

6 Local authorities comprise regional councils or territorial authorities, which include city and district councils.

- Appendix B provides an overview of the current legislative and regulatory framework for funding transport infrastructure in New Zealand.
- Appendix C contains a stand-alone guide for local authorities titled *Using value capture mechanisms to fund transport infrastructure: a guide for local authorities*.
- A glossary of commonly used terms that are mentioned throughout this report and in the Local Authority Guide in appendix C is provided at the end of the report.

2 Mechanisms for funding transport investments

This section provides an overview of each of the three 'in principle' sources of funds for transport investment, namely: government consolidated revenue, user charges and contributions from non-user beneficiaries.

2.1 Funding of transport infrastructure

There are two principal cost components for transport investment, namely:

- the initial cost of the construction of new infrastructure – ie 'capital expenditure' such as construction of a new road, bridge or rail track
- the cost of ongoing maintenance and operation of existing infrastructure and services – ie 'operating expenditure' such as maintenance of road pavement and undertaking repairs on public transport vehicles.

In principle, these two cost components can be funded from the following three main sources:

- *Government consolidated revenue (ie from general government revenue)*: Services with 'public-good' characteristics are typically funded from this source, since the services are deemed to benefit society as a whole and it is often difficult or not desirable to charge users directly for the service.
- *User charges, where the users of transport infrastructure or services pay for the use of the infrastructure or service (eg the road user charge and the fuel excise duty)*: Services that are 'excludable' are typically funded in this way since costs are easily attributed to users. For example, some local councils charge residents a per-bag charge for collection of rubbish in New Zealand, with those residents who produce more rubbish for collection paying more.
- *Charges to landowners or developers (ie charges targeted at non-user beneficiaries of the transport investment)*: Examples include a betterment tax[7] that may be applied to those properties that benefit from the construction of community infrastructure. This also includes general rates.

We discuss each of these funding sources and their application to transport investment in more detail below. In New Zealand, both capital and operating costs of transport infrastructure and services are funded from a mix of the above sources.

2.2 Government consolidated revenue

Government consolidated revenue is used to fund the majority of government services, programmes and activities. Receipts from taxes and many government charges are collected within consolidated revenue and then used to fund government activities. Importantly, there is no clear or direct link between the amount of taxes paid by individuals and the provision of government goods and services.

7 A betterment tax is a tax on either or both of land and capital to capture the value created by the land's proximity to specific infrastructure or services.

This funding source is used to finance some public infrastructure and government services, since the services provide benefits to all (or most) individuals in a country. The types of services funded from consolidated revenue typically exhibit the public-good characteristics of being:

- non-rivalrous – the use of the service by one customer does not affect the use of the service by another customer
- non-excludable – people cannot be excluded from using the service.

For example, all residents benefit from having a national defence force that can protect their country, so all residents should contribute to defence spending through their taxes. A defence force is both non-excludable and non-rivalrous since it is not possible to exclude anyone in a particular country from the benefits associated with defence.

In some circumstances, the road network can be considered to have these characteristics. Indeed, the road network is generally perceived by the community to be a public good. Uncongested roads can be considered to be 'non-rivalrous', as well as individual roads being considered 'non-excludable'.[8] Therefore, government revenue is often used to fund transport investment. For example, in Australia consolidated revenue funds a significant proportion of transport infrastructure expenditure, with funds being distributed to each jurisdiction through a system of grants.

In recent years in New Zealand there have been limited direct government injections into the National Land Transport Fund (NLTF) because the road user charge and fuel excise duty is directly hypothecated into the NLTF and so covers the majority of required funds. However, we note that the central government still provides direct funding to other transport sectors in New Zealand, such as rail.

2.3 User charges

For some government services, a fee is charged to the user of the service – eg some councils charge a user fee for accessing the local swimming pool. The fee might recover all or part of the costs incurred in providing the service.

Charging the user of a service the cost of providing it has two purposes. First, it creates a signal to the user about the costs involved and so promotes the appropriate use of the service (ie users will only make use of the service if the benefits received outweigh the costs imposed). Economists generally refer to this as promoting 'allocative efficiency'.[9] Second, it is seen as equitable because those people who do not directly benefit from the service also do not fund (or at least only partially fund) the provision of the service.

In order to facilitate a 'fee for service' approach to charging, the service must be excludable – ie it is possible to exclude people from consuming the goods and services.[10] Continuing on with the example

8 However, the road system as a whole is excludable, since vehicles must be registered in order to travel on the network.

9 Allocative efficiency describes the promotion of efficiency (ie greater beneficial outcomes to society) by making better *use* of *existing resources.*

10 Services may also be rivalrous (ie where the use of the service by one customer affects the use of others); however, this is not a necessary condition for implementing user charges. If a service is both excludable and rivalrous then it is termed a 'private' good. Excludable but non-rivalrous goods are termed 'club' goods.

from above, the services provided by a public swimming pool are excludable (those customers who do not pay the entrance fee cannot use the pool).[11]

User charges are commonly used to fund (completely or partially) public transport, through the use of fares. It can be seen that public transport exhibits the features set out above – namely, people can be refused entry to the bus if they do not pay the fare ('excludable'); and overcrowding on the bus may negatively influence a passenger's experience ('rivalrous').

Road investment is also funded from user charges such as registration and annual licencing fees, road user charges, and fuel excise duty. For example, in New Zealand the NLTF is a fully hypothecated or dedicated fund for land transport infrastructure investment from fuel excise duty (petrol tax) and road user charges and licencing fees. For the NLTF, the government applies the principle that revenue raised from road users should be spent on the road system as well as funding other activities that benefit road users. It is noted that public acceptance for the use of 'user-pays' approaches for funding transport has increased since the fuel excise has been fully hypothecated (NZCID 2011). Conversely, the central government has been less willing to provide additional crown funding to transport given that there is a fully hypothecated land transport fund.

Internationally, 'alternative' user charges such as road tolls, congestion charges and high-occupancy toll (HOT) lanes are increasingly being used to fund transport investment.[12] This reflects the observation that road infrastructure has many 'private-good' characteristics. Toll roads are common in Australia and have also been introduced in New Zealand – eg the Northern Gateway north of Auckland opened in 2009.

Tolls and congestion charges are currently being or have been considered in a number of contexts in New Zealand, including in previous NZTA research reports, reports by the Ministry of Transport into road pricing in Auckland, and the Auckland Spatial Plan. For example, previous research reports for the NZTA examined road user and congestion charging (Booz Allen Hamilton 2006; James and Date 2007). Moreover, the Ministry of Transport investigated the introduction of various congestion charging mechanisms for Auckland in both 2006 and 2008. Notably, the potential introduction of tolls and congestion charges has also arisen recently in the context of the Auckland Plan (Auckland Council 2011a).

As the use of tolls and congestion charges are being considered in a number of other contexts, we have not considered them further in this project. Instead, the focus of this research is on the use of value capture mechanisms (ie charges to land owners and developers), as discussed below.

2.4 Contributions from land owners and developers

The third potential source of funds is from charging the beneficiaries of a service who may not directly make use of the service. For most services, the beneficiaries are simply the direct users of the service. For example, in the electricity industry customers *benefit* from being able to heat and cool their properties through *using* electricity. In this case, a beneficiary charge is no different from a user charge.

However, transport is different from other infrastructure services because non-users of transport can also benefit from transport investment. For example, a business may not directly *use* an expanded public transport route that provides services near its premises, but it will *benefit* from having increased

11 Further, this is also an example of a rivalrous good – if many customers use the pool it will become overcrowded and so a patron may not be able to swim in the lane they want to use.

12 These are roads where single-occupancy vehicles have the option to pay a charge to travel in a less congested lane on the road. Vehicles that choose not to pay this charge travel in the other lanes.

accessibility and foot traffic to its business. Potential customers will be able to more easily access the business and so sales may increase.

Charging all beneficiaries for transport investment contributes to the promotion of efficient investment in and use of transport, by aligning the recovery of costs to the beneficiary of those costs. This minimises the scope for cross-subsidisation between beneficiaries, and so reduces the need to recover costs from transport users directly in excess of the direct marginal cost of use of transport. This becomes important where the users and the beneficiaries are not one and the same – as can be the case in transport, and where users are particularly price sensitive.

Contributions from beneficiaries are also termed 'value capture' mechanisms, with these concentrated on 'capturing' the 'value' that is created by transport investment. To understand these mechanisms a distinction must be drawn between the concepts of value *capture* and value *creation.* Value *creation* is where an action or investment increases the value of land in a location, thereby accruing benefits to the land owner and/or occupier of a specific location. This additional land value created through increased accessibility arises from:

- improvements from the development of the land – eg investments in the building or amenity of land
- improvements in the surrounding community/social amenity – eg investments in local parks, schools, water, electricity infrastructure
- improvements in the accessibility of the land – eg investments in public transport or road infrastructure.

For example, studies in North America have shown a strong relationship between the impact on land value and transport investment. The impact ranges from a 5–10% increase on residential values, to a 13–30% increase on commercial properties within close proximity to the infrastructure (Doherty 2005). Value is also *created* for those users of the transport infrastructure who benefit from being able to access more places through use of roads and public transport that are higher in both quality and quantity. The increased accessibility and use of infrastructure creates a number of benefits that accrue to the community as a whole, as well as to individual businesses, developers and residents. For example:

- the community or public benefit from increased social cohesion and improvements in productivity that can arise
- businesses benefit from decreased freight and business-related transport costs
- developers benefit from increased values of the land being developed
- homeowners benefit from shorter commutes, improved access to key infrastructure such as schools and hospitals, and improved access to public transport.

Value capture mechanisms are therefore a means of funding the cost of these land-improving investments by either 'capturing' part of the incremental increase in land value, or by 'capturing' part of the benefit to the transport non-user. Historically, these benefits (particularly 'amenity' benefits) have not been well captured in applications of benefit–cost assessments in New Zealand (one should note that these are pecuniary benefits, which may or may not indicate real costs or benefits and so might properly be excluded from benefit–cost analysis per se)

We note that parking charges are sometimes described as a mechanism that charges beneficiaries of transport infrastructure. However, we consider parking levies more akin to a charge to use land in a certain manner (ie to park a car) rather than as a means to capture the increase in value associated with

allowing car parkers to use adjacent road infrastructure. Accordingly we have not considered parking levies in this report (although we note that a targeted rate could potentially target parking lots).

However, charges to beneficiaries who are not direct users have been used globally in combination with user charges and government contributions to fund transport. For example, betterment taxes are commonly used in the UK to fund infrastructure such as transport, water and wastewater services.

Value capture mechanisms are therefore a means of funding the cost of these land-improving investments by either 'capturing' part of the incremental increase in land value, or by 'capturing' part of the benefit to the transport user. Value capture mechanisms can provide an alternative supplementary source of funding for transport infrastructure and services where:

- a user charge is either impractical or inappropriate given the costs involved in implementation
- existing funding mechanisms provide insufficient funds for ad-hoc investment projects
- existing funding mechanisms provide insufficient funds for the economic maintenance of roads.

The current legislation and framework in New Zealand is very enabling in terms of mechanisms that can be applied to levy 'value' from beneficiaries. We note that in the international literature on value capture mechanisms a large number of mechanisms are commonly cited. For example:

- land value tax – defined as capturing the general increase (in the context of 'value capture') in the price of land due to improved accessibility from transport
- tax increment financing (TIF) – defined as levying taxes on the future increment in property value within a development project to finance development-related costs, including infrastructure improvements
- special assessments – defined as imposing special charges on property that is close to a new facility
- transport utility fees – which treat transport networks as a utility; ie they apply a user charge
- development impact fees – defined as one-time charges imposed on new developments
- negotiated exactions – defined as functionally similar to development impact fees, except they are not determined through a formal or formulaic process and are not typically applied to off-site infrastructure provisions
- joint development – defined as the development of a transport facility simultaneously with the development of adjacent private land development, in which a private sector partner either provides or makes a financial contribution to offset its costs
- air rights – defined as where development rights are established above/below a transport facility in exchange for a financial payment.

However, we consider that most of these mechanisms can simply be considered as variations on mechanisms that are already available under New Zealand's legislation. For example, special assessments are essentially a variation of a targeted rate. Development impact fees and negotiated exactions are a variation of development and financial contributions. This means that considering the opportunities for greater use of value capture mechanisms is mostly a question of the impediments or limitations within the current charging frameworks to greater use of charges targeting land value changes, rather than a consideration about how a new mechanism might be introduced.

2.5 Summary

There are three main sources of funds for transport infrastructure – government revenue, user charges, or charges to land owners or developers. The best funding approach for a particular project or set of circumstances will likely involve one or a combination of these options and will be influenced by both the central and local governments' philosophy on funding infrastructure (eg if a user-pays approach is adopted, then a higher proportion of funds will be recovered through user charges). The assessment of the different funding mechanisms can be guided by a series of principles such as fairness, administrative efficiency, transparency, neutrality and capacity.[13]

The use of charges to land owners and developers (ie value capture mechanisms) is the focus of this research, with a number of current mechanisms available in New Zealand that can be considered akin to value capture. We discuss these mechanisms in more detail in the following chapter.

13 See www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/committees/strategyfinancecommittee/meetings/strategyandfinancecomag20120215.pdf

3 Funding transport infrastructure in New Zealand

This chapter outlines the current sources of funding for transport investment in New Zealand, focusing on the funding arrangements for local councils, and the funding pressures that these councils experience.

3.1 Current sources of funding

Transport infrastructure in New Zealand is currently funded mainly from a mixture of user charges, general government revenue and charges to land owners and developers (see table 3.1).

Since 2008, New Zealand central government revenue from the consolidated fund has no longer formed part of the NLTF. However, some specific land transport projects and activities are funded by central government through annual Crown appropriations rather than through the NLTF – most notably, this includes rail capital investments, which are funded through direct central government appropriation.[14]

Table 3.1 Current sources of funding for transport investment in New Zealand

Mechanism	Examples of current use in New Zealand
Government consolidated revenue	Direct Crown appropriations to fund rail capital investments. Councils use revenue from investments to fund local roads.
User charges	NLTF is a hypothecated fund from aggregated charges on fuel excise duty (petrol tax), registration and licensing fees, and road user charges. Direct user charges on toll roads – eg the Northern Gateway Toll Road. Direct user charges through fares for public transport.
Contributions from land owners and developers	Councils use rates (both general[a], targeted and differential) to fund local transport infrastructure and services. Councils use development and financial contributions to fund local transport infrastructure and services.

a) General rates are potentially an example of all of these categories. However, given the link between land value and the collection of rates, we have categorised rates here as 'contributions from land owners and developers'.

The NLTF can be considered as funding from user charges, since the fuel excise duty, registration and licensing fees and road user charges are directly hypothecated into the NLTF. The NLTF is managed by the NZTA through the National Land Transport Programme (NLTP). The NLTP has a number of 'activity classes' defined by the Government Policy Statement on Land Transport Funding (GPS). These set out the specific amounts that are required to be spent on each activity, such as renewal of local roads. The activity classes include new and improved infrastructure for state highways; renewal of state highways; maintenance and operation of state highways; new and improved infrastructure for local roads; renewal of local roads; maintenance and operation of local roads; road policing; public transport infrastructure; public transport services; road safety promotion; walking and cycling; sector training and research; transport planning; and

14 Over the next 10 years this will include: $2 billion for Auckland ($1.6 billion mainly relating to the electrification of trains) and Wellington ($500 million for the metro rail upgrade) metro rail systems; and $1.1 billion as the government's share of the KiwiRail Turnaround Plan to improve the national rail freight business.

management of the funding allocation system. Projects are consequently undertaken within these funding parameters, and when accessing the NLTF there is limited flexibility to provide additional funds to projects that fall outside of the parameters described in the GPS.

In New Zealand, councils use rates (general,[15] targeted and differential), and financial and development contributions to partly fund transport infrastructure and services. These are considered akin to value capture mechanisms since they seek to recover funds from those who benefit from the road network – and in the case of rates, trying to capture non-user benefits.

3.2 Councils' funding of transport infrastructure

The GPS sets out the NLTF contribution available for local roads, but transport infrastructure is also 'co-funded' by councils according to the relevant 'funding assistance rate' (FAR). The level of co-funding is determined by the NZTA according to the Land Transport Management Act 2003. Councils are responsible for delivering land transport infrastructure and services within their area, through the different funding mechanisms available to them. Councils can also raise additional revenue to fund transport infrastructure when the council decides it wants a higher level of service than what the FAR provides.

Funds are raised through a number of relatively broad and enabling legislative provisions included in the Local Government Act 2002 (LGA) and the Resource Management Act 1991 (RMA). Funding sources include development and financial contributions; other contributions from approved organisations, community groups or other entities; funds generated from road tolls for new land transport infrastructure; borrowing and investment;[16] and public transport fares and advertising revenue. Through this co-funding, an additional $5–8 billion (over what is available from the NLTF) will be invested in local roads through councils over the next 10 years to 2022 (NZ Government 2011).This does not include any additional transport infrastructure that local authorities may themselves fund.

A number of current funding sources in New Zealand can be considered 'value capture mechanisms' since they seek to recover funds from those that benefit, but may not necessarily use, transport infrastructure, specifically:

- development contributions (under the LGA) – which seek to recover transport investment expenditures from developers so that they pay for an appropriate share of the off-site infrastructure the development requires
- financial contributions (under the RMA) – which seek to recover the costs associated with the mitigation of environmental effects from developers
- targeted rates (under the Local Government (Rating) Act 2002) – which seek to recover transport costs from a 'targeted' group of individuals who may be particularly benefited or impacted by projects
- other negotiated mechanisms – which seek contributions (from beneficiaries) that have been negotiated separately to the legislative frameworks.

15 General rates cover rates on the value of land, or capital value of the building, or annual value, and in some cases a uniform annual general charge.

16 We note that this will be enhanced by the creation of the Local Government Funding Agency (LGFA), which was launched in 2011 and will act as a large-scale borrower that will then re-lend to councils.

Indeed, the GPS on transport infrastructure notes that 'land use and transport planning processes should ensure [...] new commercial and residential developments meet the cost of their infrastructural impact on the wider transport network' (NZ Government 2011, p10).

These current value capture mechanisms and the experience that councils have had with these are explored in more detail in the following chapters.

Councils are free to choose their own mix of funding mechanisms. However, they must have regard to section 101(3) of the LGA when funding activities:

> *The funding needs of the local authority must be met from those sources that the local authority determines to be appropriate, following consideration of,*
>
> *(a) in relation to each activity to be funded,*
>
> *(i) the community outcomes to which the activity primarily contributes; and*
>
> *(ii) the distribution of benefits between the community as a whole, any identifiable part of the community; and individuals; and*
>
> *(iii) the period in or over which those benefits are expected to occur; and*
>
> *(iv) the extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and*
>
> *(v) the costs and benefits including consequences for transparency and accountability, of funding the activity distinctly from other activities; and*
>
> *(b) the overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental, and cultural well-being of the community.*

This includes the *benefits* and *distribution* of these benefits throughout the community. Given the above considerations, each council determines its own 'social philosophy' for how infrastructure should be funded. For example, some councils adopt a user-pays approach to funding infrastructure where targeted rates, user charges and development contributions are used to fund infrastructure; whereas other councils adopt a more public-good approach to funding infrastructure, where infrastructure is funded through general rates. This philosophy is also influenced by the different funding pressures that regions face, as we discuss in the next section.

3.3 Funding pressures differ by region

Each region in New Zealand is facing different funding pressures, in particular:

- rural areas have declining populations and so (most likely) a declining rate base, so there is a challenge when recovering the costs from fewer rate payers
- in metropolitan areas, congestion and an increasing focus on public transport mean that the challenge is seeking additional funding for improved transport infrastructure needs.

The first group can be generalised to those 'provincial' authorities within New Zealand. These typically have small, disparate populations that are either declining or staying constant (ie not growing). For these councils the scope to increase the amounts recovered via general rates is limited due to population concerns. Moreover, they are also faced with relatively high network-infrastructure costs that typically span a wide region. In some cases these will be low-growth regions struggling to fund further development (and so value capture mechanisms may be relevant); in others they will be struggling to

maintain what they have (and so value capture mechanisms may not be as relevant). These councils face funding pressures through a limited ability to raise funds from their ratepayers in order to fund their existing transport network needs. They also typically face maintenance funding problems – eg an increased number of high-productivity vehicles creates the need to strengthen bridges. Another common problem is funding pressures on roads caused by changes in land use – eg Southland District Council faces pressures caused by land use change from sheep and beef farming to dairy farming.

For metropolitan councils, growing populations place increased demands on transport infrastructure. This includes the need to build more capacity for roads and/or additional public transport infrastructure, in order to cater for increasing demand. This creates funding pressures for these communities due to limited availability of funds for these investments. As noted above, limited funds are available for investing in transport in areas that need large infrastructure investments.

3.4 Summary

A mixture of funding sources is used in New Zealand to fund transport infrastructure. The use of particular sources depends on the individual circumstances applying to the relevant council. In other words, the specific funding and 'social philosophy' considerations (eg equity) of a particular council are important when considering what funding source to use.

However, we understand through our discussions with councils that there has been an increasing trend in recent years to turn to value capture mechanisms for funding transport infrastructure – particularly by councils. These have been used to address some of the funding pressures that communities have. We consider the experience with these mechanisms in the following chapters.

4 Development contributions

Development contributions are a value capture mechanism because they are a charge on developers, who benefit from transport infrastructure through increased accessibility, which translates to an increase in the value of their development. While development contributions do not apply to any measure of 'uplift', they still target a party who benefits from infrastructure investment.

4.1 What are development contributions?

Development contributions are defined under the Local Government Act 2002 (LGA) and can also be granted in association with a building consent under the Building Act 2004. The purpose of development contributions is to fund infrastructure investments that are required as a direct consequence of development. They can be used to fund community infrastructure,[17] reserves, and most of the network infrastructures (including water, wastewater and roads). Development contributions are a form of 'value capture' mechanism because they allow for recovery of the cost of infrastructure needed as a consequence of the development from the ultimate beneficiaries of the infrastructure. The use of development contributions is relatively new in New Zealand, with it being introduced in 2002 amid concerns that financial contributions (see chapter 5) were too restrictive to use in practice (Local Government Forum and Property Council 2010a, p28).

The amount of council revenue raised through development contributions varies across regions. However, it is estimated that in total, development contributions will fund approximately 17% of forecast capital expenditure by councils by 2015/16. For those councils that are experiencing rapid growth, this might reach as high as 20% (Local Government Forum and Property Council 2010b). This variation in the associated level of charges between jurisdictions was recognised by the Productivity Commission, who set out various development levies across New Zealand ranging from $5228 to upwards of $40,000 per unit (NZ Productivity Commission 2011b, p30).

The following requirements must be satisfied to use development contributions:

- They must only be applied where the development creates a requirement for *new infrastructure* (or increased capacity of infrastructure) (LGA, s.199(1)).
- They must only be applied to *capital* expenditure[18] – ie they must not be used for operating and maintenance expenditure (LGA, s.204).
- They can only be used by *territorial authorities* (ie city or district councils) (LGA, s198(1)).
- A *development contributions policy* must be adopted by the territorial authority (as part of the long-term plan[19] (LTP) process), and developed in accordance with a number of guiding principles – eg public submissions must be sought. The policy must also contain specified information, including:
  - an explanation and justification of the way in which the development contribution is calculated

17 Defined as land or development assets on land, owned or controlled by the territorial authority to provide public amenities, and includes land that the territorial authority will acquire for that purpose.

18 With this capital expenditure specified in the councils' long-term plan.

19 The long-term plan is a 10-year strategic plan that describes the intended activities, level of service, supporting policies, financial strategy and funding information for a local authority. It is required under s.93 of the LGA.

  - the significant assumptions underlying the calculation
  - a detailed schedule of development contribution amounts (LGA, s.201).
- They must be *calculated as follows*:
  - the total capital expenditure cost of the growth-related infrastructure divided by the total amount of development gives the cost per unit of development (LGA, s.13).
- The *maximum contribution* cannot be more than the amount calculated by the per-unit cost multiplied by the number of units of demand calculated (LGA, s.203).
- They can only be challenged by way of *judicial review* in the High Court.

4.2 Experience with development contributions

In general, development contributions are the predominant mechanism (aside from general rates) used by councils to fund new infrastructure required as a direct consequence of new development. However, the actual use of this funding source varies between councils:

- Some councils (typically those with high growth) have advanced development contributions policies reflecting a high understanding of the costs associated with growth, and so extensively use funds recovered through this mechanism – these policies are typically reviewed annually.
- Some councils (typically those with low or negative growth) have only a basic policy, and so do not use this mechanism to recover funds. We understand from our interviews that for these councils, often the *council itself* is the largest developer in the area, and so there are limited opportunities to charge development contributions.

Development contributions are a relatively new funding mechanism for New Zealand, so councils have accordingly increased its use over time. Box 4.1 outlines one council's application of development contributions.

Box 4.1 Development contributions in Tauranga

Tauranga City Council charges development contributions, with two different types applying:

- a *local development contribution fee* – funding local infrastructure in particular parts of the city, with this generally payable on a subdivision consent to create an additional allotment(s)
- a *city-wide development contribution fee* – funding city-wide infrastructure that all development in the city benefits from, with this generally payable on a building consent or service connection for a new residential dwelling or additional business floor area.

The local development contribution fee is used to fund transport infrastructure that is only needed in a particular area, whereas the city-wide fee is used to fund transport infrastructure where the origin and destination of trips is all over the city. The subdivision impact fees for transport vary widely across Tauranga, from $0 per lot in Tauranga and Mt Maunganui infill through to $194,051.15 per hectare in Wairakei (stormwater area A).

This policy is reviewed annually to reflect changes in costs, and is the Council's third-largest source of revenue after general rates and user charges (Tauranga City Council 2011).

The increased understanding of development contributions has occurred largely through case law and challenges through the court. However, case law developments have largely not influenced the *calculation* of the contribution, but rather the process surrounding the *application* of the contribution.

For example, the seminal case relating to development contributions is Neil Construction and others v North Shore City Council (Potter 2007). This was a successful challenge to the North Shore City Council's development contributions policy. The High Court found that the council had made errors of law in developing its policy, by attributing capital expenditure for particular projects or activities within its LTP primarily to growth. This approach was found to not sufficiently factor in the benefits to existing ratepayers of some capital projects.

As councils have developed a deeper understanding of the requirements for the use of development contributions, they have refined development contributions policies to ensure that it is an effective source of funding. This has occurred mostly in those councils that have needed to respond to high levels of growth. We also understand that councils are currently developing new LTPs, and so are updating and reconsidering development contributions policy to incorporate the experience to date.

4.2.1 Application of development contributions

Councils highlight that development contributions are easy to use as a source of infrastructure funding when applied to greenfields developments, where the need for the infrastructure can be solely attributed to the developer. That said, it has been more difficult to fund brownfields developments, where the nexus between the development and the need for infrastructure is harder to prove. This concern is compounded for public transport investments, since the level of demand tends to naturally increase over time. We understand that it is difficult to forecast development growth and revenue levels for brownfields developments.

Indeed, most of the development that is occurring in New Zealand currently (particularly in the large metropolitan areas) is brownfields development, compounding the difficulties of applying this instrument. We note that some of these concerns should dissipate over time, as the use of development contributions becomes more common and as councils gain a better understanding of these costs. Moreover, this is also influenced by the ability of councils and their experience in applying development contributions. Indeed, we believe that councils could learn further by sharing their experiences with each other.

The difficulty with calculating appropriate development contributions for brownfields developments has been recognised worldwide. However, there is little literature on potential solutions that would make the application easier.

One example from which analogies can be drawn is the Building Sustainability Index (BASIX) in New South Wales (NSW), Australia. This is a regulatory scheme that requires all new dwellings in NSW to comply with requirements for the reduction of water use and greenhouse gas emissions, and to meet minimum performance levels for thermal comfort. When this scheme was first introduced in 2004 it only applied to newly built dwellings. However, in 2006 it was extended to include alterations and additions where the residential renovation work was estimated at $100,000 or more.[20] In July 2007, this level was reduced to projects valued at more than $50,000. The scheme only applies to that area of home that is being renovated.

20 This is also required to be met if a swimming pool (or pool and spa) with a capacity of 40,000 litres or more is to be installed.

We note that a similar reasoning could be applied to development contributions in brownfields developments – ie only those developments that are over a certain value could have development contributions levied from them. This would assist with enabling the value to be clearly assigned to the beneficiary, since only developments that have 'larger' benefits would be considered in assigning values.

The difficulty in applying development contributions is also compounded by infrastructure ownership arrangements. As set out in the legislation, regional councils cannot use development contributions. However, regional councils are responsible for public transport infrastructure. If a regional council wishes to apply a development contribution it must rely on the associated territorial authority to apply the contribution on its behalf, and then pass the funds recovered through to it. This requires strong relationships between the different councils. This is one significant current limitation of the use of development contributions.

Related to this, only a *singular* territorial authority can apply a development contribution – ie there is no scope for a 'subregional' development contribution policy to apply across the region. For example, one council described a situation where there was substantial development in outlying suburbs that were not within its jurisdiction. These outlying residents travel into the city, imposing costs on the network and requiring upgrades to the infrastructure; however, since these residents are not within its jurisdiction, the council is unable to recover costs from these developments. Therefore there are a significant number of people who are benefiting without having to pay anything.

This situation is also compounded by the split in responsibilities across the network. For example, in the bus network, territorial authorities are typically responsible for the bus station itself, whereas the regional council is responsible for the services that use the bus station. In this situation it would be advantageous to have a subregional development contribution policy to allow recovery of these costs across the region. This would also improve strategic planning across the network.

The last limitation for the use of development contributions is that they can only be used for *capital* expenditure, as opposed to ongoing *operating and maintenance* expenditure. This is a significant limitation, since we understand that the lack of funds for maintenance expenditure (most notably the smaller councils) is a substantial problem.

We also understand that there are a number of other limitations that occur with the use of development contributions, relating to the risks that councils bear. For example, we understand that councils are often encouraged to make 'lumpy' investments in advance of demand that may not eventuate. The scope for councils to apply discount rates that reflect this level of risk is limited. Moreover, we understand that prior to the global financial crisis (GFC), councils were collecting development contribution fees in advance for capital expenditure later in the 10-year long-term plan period. However, during the GFC this capital expenditure has become unaffordable (for other reasons) and so councils face the prospect of refunding these amounts. Determining how this will be done is also challenging.

4.2.2 Development contributions and state highways

Another limitation that has been identified with development contributions is that they cannot be used to recover the costs associated with state highways. The legislation restricts these mechanisms to territorial authorities – ie it excludes the owner of the state highway infrastructure, the NZTA. Moreover, development contributions can only be used to fund capital expenditure that is listed in a council's long-

term plan. However, a new development can often require an upgrade to the state highway network – particularly at the point of interconnections such as roundabouts, on-ramps and interchanges.[21]

Currently, we understand that the NZTA can receive funds from developers in the following manner, with these contributions based on the local benefit and increased local accessibility through the state highway connection:

- Some councils apply development contributions through their policy and then pass these funds through to the NZTA. This occurs through a memorandum of understandings being agreed with the NZTA, which sets out what infrastructure is being built, how it is to be funded, the fund-sharing arrangements, and the methodology for calculating the development contribution. The mixed ownership (between the state highway and local council) of the transport asset presents complications with the cost-sharing arrangements for capital and maintenance expenditure.
- The NZTA enters into voluntary development agreements where it receives monetary contributions from developers for current or future works on state highways, or where the developer offers to undertake works on a state highway (ie voluntary contributions). This occurs through an agreement being reached between the NZTA and the developer, setting out the agreed price, the time frame, and the standard to which the infrastructure will be built.

We understand that the NZTA is also currently investigating (via a pilot) the establishment of a mechanism to better enable the NZTA to seek development contributions through councils – ie a policy on the former approach set out above. This is to occur within the current LGA provisions, namely:

- The council must construct the work, but does not have to own or control the infrastructure.
- The infrastructure subject to the contribution must be needed due to increased demand as a result of growth.
- The capital expenditure has to be identified in the authorities' LTP.

We understand that the NZTA has previously received legal advice that recommended changes to the legislation to enable it to levy development contributions. Given that the application of development contributions seeks to attribute costs to those who incur them on the network (ie developers), we do not foresee any problems with this. Indeed, it would result in a more efficient allocation of funds. For example, previously a particular project would have to wait to receive funds from the NLTF. If developer contributions can be levied by the NZTA, then these funds from the NLTF can be applied to the next prioritised investment. That said, there may be legitimate reasons why development contributions as set out in the LGA have not been previously extended beyond its use by territorial authorities, but we did not investigate these reasons as part of this project.

Similar arguments could be made to extend the application of development contributions to KiwiRail, to allow developer contributions to be levied to partly fund significant rail projects.

4.2.3 Incentives for developers

Development contributions are widely recognised as being tied to the state of the economy. Indeed, the amount of money recovered via this mechanism has declined since the GFC, with many councils noting

21 We understand that this limitation also applies to rail investments, since rail infrastructure is not within the responsibility of territorial authorities, but rather KiwiRail. We note that the operation of the passenger networks in Auckland and Wellington fall to the local authorities, but the actual infrastructure responsibility does not.

that there are significantly fewer developments than previously. Further, some councils expressed the view that the ability to rely on development contributions is now limited, given the current economic downturn in New Zealand. For example, some councils have recently revised down forecast revenue from development contributions to reflect prolonged historic shortfalls (NZ Productivity Commission 2012, p130). This results in administrative problems (as discussed above) where the council decides to cut previously forecast capital expenditure for which development contribution fees have already been collected in advance. Further, given that development contribution fees are announced before they come into effect, this may provide incentives for developers to delay applications until after the new fees are operative. In response to this concern, some councils have implemented transitional arrangements. For example, Tauranga City Council is offering partial refunds based on the difference between actual and forecast expenditure.[22]

We note that while revenue from development contributions may be lower as a consequence of the GFC, the level of development in a particular council area should also have decreased – ie development is pro-cyclical.

That said, there are different experiences across councils as to whether development contributions have had an effect on encouraging or discouraging development: some councils stated that they did not wish to impose high development contributions since this would discourage development, while other councils stated that they did not consider that development contributions influenced developers' decisions.

Some of these concerns could be addressed through councils working collaboratively with developers, in order to obtain a greater understanding of the drivers for development. Indeed, development contributions that recover the infrastructure costs directly attributable to the development (and which do not deliver wider public benefits) are efficient and ensure that resources are not wasted, demand is not excessive, and also promote efficient locational choices (Productivity Commission 2004 pxxix).[23] However, where an infrastructure project delivers benefits to both a development and others (ie there are both private and public benefits), then the appropriate development contribution should reflect only that proportion of the costs that are consistent with the benefits to the development.

This means that if contributions are calculated correctly they should only influence developers in an efficient manner – ie where the benefits of the infrastructure project outweigh the costs. Over time, as councils learn more about the costs associated with development some of these incentives, concerns may dissipate.

Timing of payments is also an important factor to developers. Developers prefer to pay the contribution as close as possible to the sale of the property, in order to minimise their financing costs. Indeed, developers often seek to defer any contributions. For example:

- voluntary agreements (outside the development contribution framework) have been negotiated with developers in relation to the timing of any contributions (see chapter 7)
- developers have delayed the lodging of the form to obtain a title to the land, and so delayed the payment of the development contribution.

22 See www.tauranga.govt.nz/council-a-z/development-contributions.aspx

23 Development contributions will be efficient as long as landowners/developers do not contribute more than the value of the net benefits they receive from the new development and accompanying infrastructure, with the wider community paying any residual costs. In this circumstance, before an infrastructure project proceeds the total benefits (both private to a landowner/developer and to the community as a whole) should exceed the costs.

In other words, significant effort is being undertaken by developers in order to defer the timing of payment of development contributions. Consideration should be given to how these developer concerns can be mitigated.[24] Related to this is the need for consistency in the application of development contributions over time. Developers should not be given incentives to delay investment for several years, knowing that understanding of development costs would have improved and so the levies could be lower.

4.2.4 Housing affordability

A number of councils raised concerns about the impacts that high development levies can have on housing affordability, with developers passing on costs to the end residential customers. Indeed, the recent Productivity Commission report on housing affordability in New Zealand concluded that development contributions have affected housing affordability (NZ Productivity Commission 2012, p126). The majority of councils that provided submissions to the Productivity Commission review considered that development contributions had minor impacts on housing affordability, but Tauranga City Council described in its submission how development contributions can have significant impacts on housing affordability (ibid, p135) – see box 4.2.

Box 4.2 Wairakei assessment of housing affordability

Tauranga has housing affordability problems. For example, Tauranga ranks as the most unaffordable urban area in New Zealand, based on the ratio of median house prices to median household incomes.

Tauranga City has also had the highest population growth of any council area over the past decade. Within Tauranga, Wairakei is an urban growth area located in Papamoa East. Due to growth in the area, significant infrastructure projects are required. This includes a new arterial road (Te Okuroa Drive) at a cost of $23.1 million, and a road upgrade (Tara Road) at a cost of $13.3 million.

Tauranga City Council built a model to assess the feasibility of development in Wairakei. They concluded that it is unlikely that a significant number of affordable houses can be produced. They identified the following factors that could reduce costs:

- have more favourable land purchase terms
- reduce average section size in order to deliver more sections
- reduce councils fees (eg development contributions)
- build smaller houses
- use lower-cost building materials.

While these factors were discussed in the report, the council had worked with developers in relation to reducing council fees.

The factor that the Council had the most control over was development contributions. For example, one alternative was to use a targeted rate – removing development contributions would reduce the price of a section by approximately $40,000+GST. Given Tauranga's long-term average borrowing rate, each $1000 reduction to development contributions requires a targeted rate of $100 for a period of 20 years. Therefore, if targeted rates were to be used instead of development contributions, the amount applied to

24 Or indeed, whether these concerns are actually valid. For example, where the council has already made the investment and so is bearing the risk, it could be argued that developer concerns are primarily self-interest.

individual properties would have to be substantial. This would have negative consequences for the property owners, and it was felt that developers could bear the costs more easily.

However, reducing development contributions would require a move away from the Council's current philosophy of 'growth pays for growth'. (Source: Essentia Consulting Group and Tauranga City Council 2010.)

The views on the effect of development contributions on housing affordability are also influenced by the circumstances faced by each council. For example, LECG undertook a detailed economic analysis of the impact on residential prices of the contributions policy for Christchurch City Council (Local Government Forum and Property Council NZ (2010a). LECG suggested that if the contributions were passed on in full, the development contributions policy adopted by the council in its LTP 2006–16 (ie prior to the earthquake) could lead to a 2–3% increase in the price of vacant residential sections. The impact on residential prices was reported to be small, relative to other influences such as employment or population effects (Local Government Forum and Property Council NZ 2010a p29). This is in contrast to the conclusions reached in Tauranga (see box 4.2).

While development contributions may have an effect on housing affordability, if development contributions are not levied on the particular developers, then the general community will bear the costs of upgrading the infrastructure and so house prices in general will rise across the region. In other words, development imposes costs on network infrastructure that will need to be paid, regardless of who is paying. Therefore, development contributions remove cross-subsidies that exist when these infrastructure costs are spread across the more general rate base. That said, we note that if the infrastructure provides benefits to the broader society, then development contributions are most likely not the best funding tool to use. Moreover, most development these days is brownfields infrastructure that serves a mixture of existing and new users. In these cases, a mix of funding tools is probably required.

4.3 Conclusions on development contributions

Development contributions are frequently used by territorial authorities to fund transport infrastructure (as well as water, wastewater and other community infrastructure). This promotes efficient land use since it forces developers to consider the costs of the additional infrastructure caused by development. Moreover, it attributes the costs associated with development to those who benefit, and so reduces the amount to be recovered from the general ratepayer base.

In general, we note the following:

- Councils have improved their application of development contribution over time, with increased understanding of the costs associated with development evident, and we expect this to continue as councils become more familiar with the mechanism. In their final report on the inquiry into housing affordability, the NZ Productivity Commission (2012) recommended the development of a set of best-practice guidelines for the use of development contributions, to contribute to this improved understanding. The guidelines would cover when development contributions should be used, how they should be calculated, and how costs should be recovered. We note that a best-practice guide on the use of development contributions was previously developed by Local Government New Zealand, designed to be used by territorial authorities (Local Government New Zealand 2003) – the Productivity Commission suggested that one approach might be to update this earlier guide.

The Productivity Commission also suggested that training and a quality assurance process should be introduced for councils, as well as strengthening the incentives for good practice in development contributions (2012, p11).

- There is scope to contemplate extending the application of development contributions to allow both regional councils and the NZTA (or central government agencies) to use this as a funding mechanism. This would enhance the process of using development contributions for the NZTA, creating both time and money savings compared with the current process, where individual specific development agreements are negotiated (see chapter 7 of this report). We understand that the 2007 *Report of the local government rates inquiry* (p21) recommended the extension of the development contribution powers to regional councils, but not to Transit New Zealand (the precursor to NZTA) However, this recommendation was not adopted by the government at the time. In addition, the initial rationale behind the LGA limiting the collection of development contributions to territorial authorities should also be examined.
- There is scope to investigate the extension of development contributions to fund operating and maintenance expenditure, in addition to the costs of the initial infrastructure investment. We note that there would likely be significant methodological challenges associated with this, and so we consider that this would be a useful area for future research.
- There would be substantial benefits in allowing subregional development contributions policies to be developed – this would also address a number of split responsibility problems as identified above.
- There is a need to ensure that there is a consistency of approach in applying development contributions across time and across councils.

We also note that the New Zealand Government has recently announced a suite of reforms to local government. One of these includes undertaking a review of the development contribution policy. This may cover some of the limitations and issues that we have identified.[25]

Finally, this discussion of the use of development contributions as a funding mechanism does not preclude consideration of the economic benefits and costs of its use as compared with alternative funding approaches. This requires consideration of the implications of the use of development contributions on economic growth and housing construction.

25 See www.beehive.govt.nz/sites/all/files/Better-Local-Gvt-pr08.pdf

5 Financial contributions

Financial contributions are an example of a value capture mechanism because they are a charge on developers, who benefit from transport infrastructure through selling the development at a higher price due to the increased accessibility.

5.1 What are financial contributions?

Financial contributions are defined under the Resource Management Act 1991 (RMA), and so can only be required as a condition(s) of resource consent given under the RMA. These are planning-based instruments. Financial contributions typically involve monetary contributions, but can also involve contributions of land, or a combination of the two. The focus on the use of financial contributions is for funding infrastructure that has an associated effect on the environment – ie they are to be used for mitigating effects at a local level.

Financial contributions are less extensively used than development contributions; however, it is estimated that financial contributions will comprise approximately 8% of forecast council capital expenditure by 2015/16 (Local Government Forum and Property Council NZ 2010b, p28).

While they are levied under different legislation, financial contributions are similar to development contributions. However, the main distinction is that development contributions seek to recover *growth-related* infrastructure costs, while financial contributions seek to recover *environmental* costs (eg those associated with mitigating, avoiding or remedying negative environmental consequences).

Both *development* and *financial* contributions can be imposed on the same individual or organisation, as long as the *purposes* between the contributions differ.

There are a number of restrictions on the use of financial contributions, specifically:

- They must only be applied in accordance with the *purposes specified in the proposed planning provisions*, and if the level of contribution is *calculated in accordance* with the plan (RMA, s.108(10)).
- A policy on financial contributions must be included in a council's LTP, with this stating the proportion of expenditure for activities to be funded by financial contributions (LGA, ss.102–103).
- If the activity that the resource consent is granted for does not proceed, then the financial contribution should *be refunded* to the individual (RMA, s.110).
- They can be *challenged through the planning process*, by individuals objecting to or appealing the consent condition, or through a declaration to the Environment Court. [26]

Financial contributions can be applied by *both* territorial authorities and regional councils, whereas development contributions can only be applied by territorial authorities.[27] Further, financial contributions can recover past and current expenditure, whereas development contributions can only take into account future costs.

26 Development contributions can be challenged through seeking an Ombudsman investigation, applying for judicial review, or a declaration to the High Court.

27 Definition of 'consent authority' in the RMA.

5.2 Experience with financial contributions

Most councils do not see financial contributions as a useful mechanism,[28] and so their use is much less widespread than the use of development contributions. This is due to the perception that the RMA is constraining in how it can be applied. Despite this, many of the legal issues with development contributions that were set out earlier in the report do not arise with financial contributions. For example, regional authorities can apply financial contributions, whereas they cannot charge development contributions.

Some councils note that where the infrastructure seeks to mitigate off-site effects, there are advantages to using financial contributions to fund infrastructure that is not on the schedule of works to be funded through development contributions. For example, this may include local traffic works on a public road. One council noted that the construction of two new bus shelters was not included in its development contributions plan, but was able to be funded through financial contributions.

Further, given that regional councils can use financial contributions, these allow for the recovery of the costs of public transport services that arise as a consequence of a development. One council provided an example where a developer was relying on a new public transport service, and so the developer entered into agreements to pay for the costs of the service in the first years through a financial contribution.

However, despite these advantages councils do not widely use this mechanism since:

- it is effects based and constrained to environmental effects
- it is open to merits-based appeals through the Environment Court, with:
  - the likelihood of appeals having increased in recent years due to the economic downturn
  - those councils that still use financial contributions commonly being those councils that have not experienced challenges to the Environment Court.

Accordingly, development contributions are less easily challenged and more easily collected.

5.3 Conclusions on financial contributions

Financial contributions have not been used as extensively as development contributions, primarily due to being effects based and open to merits-based appeals. We note that financial contributions can be effectively used where there are some limitations with the use of development contributions – eg by regional authorities to fund public transport infrastructure. However, the requirement for the infrastructure to address environmental effects, and the likelihood of appeals, discourages many councils from using them.

28 We consider that financial contributions may be more useful where capital expenditure programmes are uncertain.

6 Targeted rates

Targeted rates are considered a form of value capture mechanism since they recover costs from a 'targeted' group of individuals who may be particularly benefited or impacted by an infrastructure project.

6.1 What are targeted rates?

Targeted rates are set under s.16 or s.19 of the Local Government (Rating) Act 2002 (LGA (Rating)). A targeted rate is used to fund those activities where the council considers the costs should be met by particular groups of ratepayers, or that there is some other benefit in funding outside of the general rate (Department of Internal Affairs 2011).

The following limitations are set on the use of targeted rates:

- They must be set for *certain activities* – the rates policy must identify the groups of activities for which the targeted rate is to be set (LGA (Rating), s.16(1)) ie they can only be used for the purpose for which they were intended.
- They can be set on all rateable land, or on one or more categories of rateable land (LGA (Rating), s.16(3)).
- They can be sent on a *differential basis* (LGA (Rating), s.16(4)).
- They can only be calculated using factors identified within the funding impact statement and listed in Schedule 3 of the Act (LGA (Rating), s.18).[29]
- The revenue recovered from targeted rates, which are set on a uniform basis and calculated either as a fixed amount per rating unit or by reference to the number of separately used or inhabited parts, *must not exceed more than 30 per cent of the total revenue* from all rates (LGA (Rating), s.21), and *must be set in accordance with the council's LTP and funding impact statement* (LGA (Rating), s.23 (2)).

Targeted (and general) rates can also be subject to 'differential rates', with differences relating to: land use; activities currently or proposed permitted or controlled for the land; area of land; provision or availability to the land; where the land is situated; and annual capital or land value. For example, a differential rate can be set for residential properties, compared with commercial properties. The general rate may be 1% of the capital value, with residential properties charged at a factor of 1, while commercial properties are charged at a factor of 1.5. In this example, this would translate into a rate for residential properties of 1% of the capital value (1% x 1); and a rate for commercial properties of 1.5% of the capital value (1% x 1.5).

Box 6.1 sets out Auckland Council's application of a targeted rate.

29 These are the annual value, the capital value, the land value, the value of improvements, the area of land, the area of land that is sealed paved or built on, the number of used or inhabited parts, land use, the extent or provision of any service, the number or nature of connections, the area of land, the area of floor space, and the number of water closets and urinals.

Box 6.1 Auckland CBD targeted rate

Auckland Council has a targeted rate that was introduced in 2004 to fund development projects in Auckland's central business district (CBD). Initially, this was to apply for a 10-year period. However, in 2006 the collection of the targeted rate was extended for a further two years to 2016.

The CBD targeted rate was introduced for historical reasons. Previously, the Council had a higher differential rate applying to the CBD. This was deemed inequitable, and so the differential general rate was reduced and a targeted rate was introduced in order to recover further funds.

The targeted rate applies to both residential and non-residential ratepayers in the CBD. The funding from the targeted rate programme was designed to 'significantly speed up and expand the projects to revitalise Auckland's CBD'. At the time of this research the residential rate was $55 per annum, with the targeted rate providing $175.5 million over 12 years.

The funding covers a variety of projects including upgrades to streets and open spaces, increased service levels for street cleaning and maintenance, events, communications, marketing and professional management.

After the 12-year period (2004–2016), the targeted rate is to be reduced to cover day-to-day operational costs, such as higher levels of street cleaning and maintenance. It is expected that the rate will drop down to less than half of the current rate. (Sources: Auckland Council, pers comm; Auckland Council 2009)

6.2 Experience with targeted rates

The use of targeted rates varies across the councils. For example, some councils use targeted rates extensively, with targeted rates being used to fund projects that are either above the level of investment that the council is willing to fund from other sources, or where an individual wants projects to occur faster than the council is willing to fund.

While the discussion below is focused on applying targeted rates to geographical areas, we note that targeted rates can be used to target a 'function' (eg water or wastewater).

There are numerous examples of the way targeted rates have been used. For example:

- Auckland Council uses targeted rates to fund business improvement districts that contain a 'region (of shops)' ranging in size from large (eg the CBD region with several thousand shops) to small (eg local regions with 10–15 shops). The size of the region is based on a subjective assessment of benefits and is agreed upon through consultation with stakeholders. The targeted rates are used to fund promotional activities – the Council collects the rate on behalf of individuals and then pays this amount to the shopping centre.
- Smaller councils (eg Marlborough) have used targeted rates to seal roads (The Marlborough Express 2011). These communities have been willing to pay in order to gain the benefits associated with sealed roads.
- Some councils apply targeted rates to outlying areas served by bus routes, to recover the costs of these services from the local communities that are the main beneficiaries.
- Loan repayments have been funded through targeted rates. This is usually on a case-by-case basis, where the council does the work (typically wastewater schemes or roading) funded through borrowing, and then repays this through additional revenue recovered through targeted rates.

- Targeted rates can be applied for short periods of time – eg some areas had targeted rates applying for several years leading up to the Rugby World Cup in order to recover costs associated with the increased tourism.

We note that the above examples have been applied either to infrastructure projects broadly (eg shopping district costs), or to specific projects where the benefits could be clearly identified and attributed to associated parties (eg sealing of roads).

Targeted rates are used by councils because they allow the recovery of costs from those who specifically benefit from a particular infrastructure – ie are consistent with a council philosophy of user pays.

Box 6.2 Southland's targeted rates

Roads in Southland are funded from a mix of revenue from rates and central government grants (ie the NLTF). The Council believes that a portion of the roading costs should be paid by *all* ratepayers, to reflect users' access to the network, with the remainder paid by direct users through a targeted rate.

The targeted roading rate applies for each of the following sectors: commercial, dairy, farming, forestry, industrial, lifestyle, mining, residential and other.

The targeted rate is calculated as follows, using a roading-rating model:

- General expenditure (eg road signage, road markings, general operations, drainage control, lighting and minor maintenance – approximately 65% of total roading costs) is allocated across the above sectors based on capital value (ie the size of the property and level of improvement).
- Structural and pavement costs (generated by heavy vehicles – approximately 35% of total roading costs) are allocated between rural sectors by tonnage, and commercial and industrial sectors by number of properties.
- A total percentage share of costs (ie general expenditure + structural and pavement costs) is established for each sector.
- A targeted rate is set for each sector, based on their share of costs, and levied on the capital value of each rateable unit.

The money recovered from the application of this targeted rate is used to fund both capital and operating expenditure. This model is revised annually with updated assumptions. (Source: Southland District Council 2011.)

Despite the extensive use of targeted rates by some councils, others have identified limitations with their use. As a consequence, most councils are not looking at introducing targeted rates if they do not already exist within the jurisdiction.

The first limitation is that targeted rates can only be used for what is set out in the council's LTP. The council that raised this limitation noted that it is moving to a more city-wide approach for funding, where it has the flexibility to shift funds across uses. This broader application is more akin to the application of special assessment and tax increment financing of districts overseas, where the funds are applied over a district (subset of the jurisdiction) but are used to fund multiple projects, such as a general upgrade of infrastructure.

Another concern about targeted rates was the negative public perception surrounding them. This is in part due to the concept of 'free riders'. For example, a targeted rate may be used to build a park, with this funded from residents in the surrounding area. However, other residents in the city (and also outside the

city) cannot be excluded from using the park. The residents who paid the targeted rate consider this 'unfair' and so there are equity concerns from residents. Concerns about public acceptability are considered in more detail in section 8.6.

A number of councils also indicated that they did not apply targeted rates because of the high administrative costs – this also stopped councils from applying a number of small targeted rates to small projects. Related to this, one council provided an example of how it considered introducing a targeted rate, but found that the level of the rate would have to be significant in order to recover funds (in excess of $2000 per annum per household). Therefore, the council concluded that development charges would be a more equitable way of recovering costs, as opposed to recovering these costs from residents.

6.2.1 International examples of using targeted rates

There are many international examples of targeted rates being used to fund large transport projects. For example, the Crossrail project in London involves the construction of a 21km rail line through a twin-bore tunnel connecting the east and west of London. In total the project is expected to cost £15.9 billion. Businesses will benefit from the project through reduced journey times and increased capacity for employees to travel. Each London borough is estimated to benefit by at least £14 million/annum by 2026 (2008£), through increased job creation and improved transport times for local residents (Greater London Authority 2010). Further, land values are predicted to rise between 5 and 10% (Reuters 2011).

The project is planned to be financed through a combination of future fare box revenues generated by Crossrail services, by businesses in London through contributions from businesses, by a 'business rate supplement' (BRS), and by national taxpayers.

As part of the Crossrail project, the Greater London Authority intends to put in place a BRS, which is a levy on non-domestic properties with a rateable value of over £55,000 (Greater London Authority 2010). In addition, there will be a levy on businesses in Canary Wharf to partly fund the new rail station at Canary Wharf – approximately 30% (£150 million) of the total cost of the station (Crossrail 2012).

This example highlights the use of targeted rates paid by businesses and land owners to partly fund major transport infrastructure, provided that the benefits that exist for the company and/or land owners are sufficient to outweigh the costs of the project.

6.3 Consideration of tax increment financing (TIF)

Through our discussions regarding targeted rates, a number of councils discussed the concept of tax increment financing (TIF). For example, the preliminary business case for the CBD Rail Loop prepared by APB&B for Auckland Transport and KiwiRail estimated that a TIF could raise funds of between $962 million in 2011 dollars (if 20% of the tax increment is allocated to funding the loop) and $1.4 billion (if 30% is allocated) (AECOM, Parsons Brickerhoff, Beca and Hassell 2010, p117).

TIF is where tax revenue from an increase in property value within a specified development area is used to fund the infrastructure or services that led to the property value increase.

It assumes that infrastructure has a positive effect on property values, and so results in increased revenue from tax (the 'tax increment'). Once the region where the TIF applies has been determined, the level of taxes is frozen, with additional revenue *above* the frozen level 'ring fenced' for development funds. Councils then borrow funds, using these ring-fenced funds to repay the borrowing.

One potential limitation with the introduction of TIF as a funding mechanism is that it only will recover the *perceived* benefits of transport infrastructure. Unless the development of infrastructure is a complete

surprise, then the pre-development property value would also incorporate much of the perceived benefit of the infrastructure. This highlights the difficulties associated with calculating the efficient level of 'value' associated with an infrastructure development, which is discussed further in section 9 below.[30]

TIF is extensively used in the US, where 49 states use TIF districts as a funding source. A number of states have also developed 'manuals' for the application of TIFs, establishing guidelines for best practice (City of San Antonio 2008; City of Madison 2009; City of Portland 2011). Internationally, TIF districts are generally applied broadly to an area to recover general funds for the redevelopment of the area – ie for a wide range of infrastructure.

Some councils consider that TIF is very similar to targeted rates. However, we note that the rating system in the US is different from the rating system used in New Zealand. In New Zealand, rating is budget-driven (ie the council sets a budget then allocates these costs), whereas in the US rating is usually revenue-driven (ie the fixed allowed revenue percentages of property value drive the city budget).

Accordingly, in New Zealand there is no increase in revenue just because a property rises in value. Assuming the city budget remains the same, a property will pay a large proportion of rates only if its value increases by a greater percentage than the average.

We therefore note that in New Zealand there are potentially legal impediments to the use of TIF under the LGA (Rating). This is due to issues such as the (potentially) three-year rating valuation cycle and the differences in rating systems as outlined above. In the US the application of TIF is much more precise and estimates are calculated every year. We understand that while TIF could be implemented as an annual uniform charge under the current ratings scheme in New Zealand, this would not be as precisely applied as it is in the US because of the longer timing cycle here.

A number of councils indicated that they had considered using TIF, but ultimately decided not to introduce a TIF mechanism for the following reasons:

- In the US where these mechanisms are commonly applied, rates are higher (approximately 5–10% of land value) and are revenue-driven. In New Zealand, rates are typically much lower (approximately 0.5% of land value) and are budget-driven. It is therefore more difficult to apply TIF in New Zealand since the costs associated with TIFs would be a larger proportion of existing rates for households to bear.
- If the value of properties did not increase (particularly in economic recessions), then other ratepayers would bear the risk, since the project would have to be funded through a general rating charge. However, we note that with development contributions, developers also bear the risk, potentially through additional delay, which carries with it a social cost.
- There was a perception that there was nothing that could be achieved through a TIF that could not be achieved through a targeted rate.
- There were legal queries over whether TIF can be implemented within the existing legal framework – we note that most parties considered it could via a targeted rate to the TIF area. One possible solution would be to assume the targeted rate base is the value of property increase since a given date.

Lastly, other interested parties noted that if TIF was introduced it was important for it to be consistently applied, using consistent assumptions.

30 One approach to addressing this problem might be to compare the change in value for those properties identified as receiving a benefit from a transport infrastructure project to an index of the change in city-wide property prices.

6.4 Conclusions on targeted rates

The use of targeted rates depends upon the council's opinion on whether a more users-pays approach is appropriate.[31] However, we believe that there is scope to use targeted rates more effectively. We note that this conclusion is consistent with the Rates Inquiry finding that there should be greater use of targeted rates by councils (Local Government Rates Inquiry 2007).

While some councils believe that targeted rates are administratively complex, we believe that in many circumstances the benefits of introducing them would outweigh the costs. Lessons can be learnt from the application of targeted rates by other councils in New Zealand, such as Southland Council. Targeted rates have the potential to improve the efficiency of funding infrastructure, and so better reflect costs and benefits that individuals impose on and receive from infrastructure.

Some councils note that it is hard to separate out the benefits that are associated with a particular infrastructure investment, as opposed to those occurring more generally. As highlighted above, we consider that targeted rates should either be applied to:

- infrastructure projects broadly, and across communities broadly, to allow for flexibility of funds between sources and individuals (since funds can only be used for the purpose for which they are specified)
- specific projects (ie one-off investments) where the benefits can be clearly identified and attributed (eg greenfields settings).

If targeted rates are to be used more frequently, then we believe that the application and calculation should be transparent, and subject to clear guidelines for their use.

We also note that differential rates can be used, with differences relating to specified criteria such as land use, where the land is situated, and annual capital/land value. For example, a targeted rate can be applied to a particular suburb in Auckland, and businesses can be deemed to benefit more from a particular investment and so pay 120% of the targeted rate, while residents pay, say, 100% of the rate. If the rate was 1 cent per dollar of rateable land, then business would pay 1.2 cents per dollar, whereas residents would still pay 1 cent per dollar.

31 Our discussion in this section has largely considered 'targeting' a particular geographic area. However, we note that targeted rates could also 'target' functions or sectors of the economy (among other things).

7 Other negotiated mechanisms

A number of other negotiated funding mechanisms exist that sit outside the legislative development and financial contributions. These negotiated agreements exist between councils and/or the NZTA, and developers and/or businesses, and are typically used to allow councils to get around the limitations with the current legislative mechanisms.

A number of councils provided examples of these funding mechanisms, including the following:

- One council negotiated with a shopping centre for the shopping centre to pay for traffic lights on the road.
- One council negotiated with local businesses for a contribution towards the maintenance of a particular road that was used extensively by the two businesses.
- One council noted that if developers wanted infrastructure constructed earlier than planned then they could underwrite councils' interest costs and council would build the infrastructure earlier.
- The NZTA negotiated directly with developers in order to fund upgrades to state highway connections.

7.1 Experience with other negotiated mechanisms

Councils noted that these one-off funding mechanisms were typically negotiated either to get around some of the legislative limitations with existing mechanisms identified above (ie as an alternative to development and financial contributions), or to ease timing pressures for developers.

This mechanism is used where it is within both parties' best interests to come to an arrangement, and in these cases it appears to have been applied successfully. However, councils noted that the time and effort that is involved in developing these agreements is substantial, since these are negotiated 'from scratch' each time, as opposed to being developed from an existing policy.

While these mechanisms are typically used to fund capital expenditure, some councils noted that they were looking to increase the funding of operating and maintenance expenditure in these agreements. One such example of this is in Marlborough. Marlborough Roads negotiates every year with two local forestry companies, which predominantly use one particular road, for a contribution towards the maintenance on the road. This rate is calculated based on the projected tonnage (and so damage caused by the trucks) over the year, and is typically 50 cents per tonne. This covers around one-third of the maintenance budget for this road. This charge has applied for at least 10 years.

7.2 Conclusions on other negotiated mechanisms

The use of other negotiated mechanisms allows councils to address limitations with the current funding mechanisms in terms of funding flexibility. The advantages of negotiated mechanisms include their:

- flexibility – the mechanism can be adapted to suit a particular set of circumstances
- voluntary nature – individuals will not enter into an agreement unless it is beneficial to them
- certainty – through entering into an agreement, developers and businesses are provided with certainty over (among other issues) the level of funding and service quality.

However, their disadvantages include:

- reduced transparency and accountability – there is no requirement for consultation with the wider community
- increased transaction and administration costs, since these agreements have to be negotiated 'from scratch' each time – indeed, the success of the mechanism for a particular party depends upon the negotiating skills of the individual concerned.

To encourage the use of these one-off funding mechanisms, and to promote consistency in application, councils should consider developing a policy or series of best-practice guidelines for these one-off funding mechanisms.

8 Future research areas

In the previous chapters we have set out a number of observations gained through our interviews with stakeholders and interested parties in New Zealand. These observations have included explaining a number of limitations with current mechanisms used by local authorities to fund transport infrastructure. We note that the limitations we have identified are not comprehensive, mostly because this project was not focused on reviewing current mechanisms.

That said, we believe that the current legislative framework for infrastructure-related funding in New Zealand is sufficiently flexible to allow local authorities to introduce many of the value capture mechanisms that are used internationally. Indeed, almost all of these mechanisms can be considered as variations on the current use of developer contributions, targeted rates and financial contributions. Therefore, we believe that any limitations with the current arrangements should be addressed.

Below we summarise the limitations with the current mechanisms that were identified through our interviews. We believe that these should be considered in further research (by either the NZTA or through other interested parties), with a potential outcome resulting in amendments to the current framework.

8.1 Limitations with development contributions

- The application of development contributions by entities other than territorial authorities should be considered – eg it would be beneficial to allow development contributions to be used as a means of funding transport infrastructure by regional councils, the NZTA and KiwiRail. This would allow the ready application of development contributions to large transport infrastructure projects.
- The ability to create 'subregional' development contributions policies (ie development contribution policies that cover multiple local authorities) should be investigated. This would improve strategic planning across the network. Although formalisation of this might require fiscal consolidation of councils, we consider that there would be significant benefits from informal discussions on these issues.
- Currently only capital expenditure can be funded through development contributions, as opposed to ongoing operating and maintenance expenditure. The extension of the mechanism to this expenditure should be investigated, since we understand that the lack of funds for maintenance expenditure (most notably the smaller councils) is a potentially substantial problem. We note that there would be significant methodological challenges associated with this, but we consider that this would be a useful area for future research.

8.2 Limitations with financial contributions

- The specific process associated with the challenge to financial contributions through the Environment Court should be investigated, since it has been identified by councils as a major limitation to this mechanism's use. We note that local bodies are typically in a materially stronger bargaining position than developers, and so an appeal mechanism on merits should be in place. However, consideration should be given to providing a clearer rationale and greater flexibility on the use of financial contributions to limit the opportunity for appeals on these charges being upheld, where such limitations are in the broader public interest. That said, any diminution of rights of redress should be examined carefully.

8.3 Limitations with targeted rates

- Case study examples or further work into how targeted rates could be applied more broadly to infrastructure projects across different projects and communities should be undertaken. This would allow flexibility of funds between sources and individuals.
- Further consideration should be given to how TIF can be implemented under the current targeted rate legislation; in particular, how TIF may work in the New Zealand rating system, which is different from that of the US, where it is commonly used.

9 Choosing a value capture mechanism

The previous chapters have set out the current experiences that councils in New Zealand have had applying value capture mechanisms. This chapter discusses what should be considered when choosing or applying a value capture mechanism. This may include existing mechanisms (eg development contributions) or new mechanisms (eg TIF).

We note that the application of existing value capture mechanisms as currently defined within the legislation is constrained – see table 8.1.

Table 8.1 Circumstances where current value capture mechanisms can be applied

	Development contributions	Financial contributions	Targeted/ differential rates	Other negotiated charges
Road network				
Growth associated with development	✓	✓	✓	✓
General ongoing growth	✓	✓	✓	✓
Operating & maintenance	✗	✗	✓	✓
Public transport				
Growth associated with development	✗[a]	✓	✓	✓
General ongoing growth	✗	✗	✓	✓
Operating & maintenance	✗	✗	✓	✓

a) We note that in theory, public transport infrastructure could be funded by development contributions if it was owned by territorial authorities. The reality is that most (if not all) of public transport is owned by regional councils and so is not open to the use of a development contribution.

For example, without considering changes to the legislation or the introduction of other value capture mechanisms, operating and maintenance expenditure for the road network can only be funded through either targeted or differential rates, or other negotiated charges.

Importantly, the choice of value capture mechanism should depend upon the circumstances of a particular case. Value capture mechanisms should not be implemented for implementation's sake. Instead, they should only be implemented where the benefits associated with the implementation of the mechanism outweigh the costs (relative to alternative funding mechanisms), and so appropriately attribute the benefits of the infrastructure to the beneficiary.

It is important to note that using a value capture mechanism does not create a new *source* of funds – instead, it reallocates the recovery of funds from one group to another. It is simply an *allocation* consideration for councils.

9.1 Value capture as part of a suite of funding mechanisms

Value capture mechanisms are not typically applied to *entirely* fund a project – instead, they are used to contribute in a partial way towards a project. This acknowledges that adjacent landowners are unlikely to be the only beneficiaries of a transport infrastructure project.

For example, individuals throughout a city can be affected by transport infrastructure investments where improved transport links between the suburbs and the CBD reduce commuting time (and so costs), making suburbs more substitutable (ie having similar travel time distances to key city locations). This has the effect of increasing competition amongst developers to develop currently undeveloped land, and places downward pressure on rents and house prices near the CBD.

The presence of beneficiaries beyond the immediately identifiable landowners highlights the importance of using value capture mechanisms as only one of a number of funding sources for a particular transport infrastructure project. For any given transport project, all potential beneficiaries should be identified and an appropriate level of contribution to the project, in line with the size of the benefit received, should be contemplated.

9.2 High-level screening

Having identified that land owners and/or developers are one beneficiary group of a proposed transport infrastructure project, there are a number of high-level questions that need to be considered to determine whether the use of a value capture mechanism is likely to be feasible.

The first considerations are to determine:

- whether the land owner/developer beneficiaries are readily identifiable – eg is a new highway clearly going to increase accessibility to an industrial park?
- whether the benefits associated with the investment are readily identifiable – eg can the time savings associated with the new highway be easily calculated?

If the answer to the above two questions is 'No', then value capture mechanisms should typically not be explored as a potential funding mechanism. However, if the answer is 'Yes', the next consideration, regarding the size of the project and the administrative costs, would be:

- would the benefits associated with raising additional funds outweigh the administrative costs associated with implementing a value capture mechanism – eg are the time savings associated with the new highway large enough that it would outweigh the costs associated with charging the industrial park?

The starting point for considering whether the administrative costs associated with the implementation of the mechanism outweigh the costs is to set out at a high level what will be involved in the mechanism. This would include developing a detailed description of the mechanism, including who will be responsible for each role and responsibility in conducting the mechanism, how the mechanism will operate, what incentives exist under the mechanism, and what will be required to set up the mechanism (eg new business systems).

The possible high-level qualitative benefits, costs, risks and uncertainties associated with the mechanism should then be set out. This includes:

- identifying the likely benefits and costs of implementation – these should include considering administrative efficiency, transparency, fairness and the administrative requirements to establish the mechanism
- considering how alternative approaches to implementation would likely affect benefits and costs
- considering the likely risks and uncertainties with the assessment, to provide insights on the practical viability of particular approaches to implementing the mechanism.

A qualitative assessment of the option could then be undertaken. This should include identifying the type of benefits and costs, as well as the relevant party for which the benefits and costs will accrue. In this way, the benefits and costs can be assigned to the relevant stakeholders (eg government, developers, home owners). The assessment should also compare the use of the mechanisms with alternative ways of allocating/raising the required funds.

Further detail on how to assess whether administrative benefits outweigh costs is provided in the guide for local authorities titled *Using value capture mechanisms to fund transport infrastructure: a guide for local authorities,* in appendix C of this report.

If the answer to whether administrative benefits outweigh costs is 'Yes', then a number of other features should be considered to choose between the alternative mechanisms – these features are discussed in the remainder of this chapter.

9.3 Features of value capture mechanisms

Value capture mechanisms vary around four key features:

- whether a land owner or developer is targeted – the non-user beneficiaries of transport investment can be land owners or land users who benefit from increased accessibility; transport users who benefit from the use of the service; or developers who can sell their developments for more, due to increased accessibility
- whether it is a one-off or ongoing charge – the payment mechanism can either be in the form of a one-off (lump sum) or ongoing payment
- the incentives created – each formulation can create different incentives for land use decision making, and for transport investment decision making
- the level of public acceptability – the feasibility of introducing the mechanism in part depends on the existing administrative and legislative arrangements, and the level of public acceptability.

These four features, which should be considered when choosing a value capture mechanism, are discussed in detail in the following sections.

9.3.1 Choice of non-user beneficiary targeted

The selection of the non-user beneficiary to be targeted involves two options: individuals (ie land owners or land users), or developers of the land. Indeed, the current value capture mechanisms in New Zealand can be characterised as applying to either individuals (through a targeted rate) or developers (through development or financial contributions).

The nature of the transport infrastructure project is a key determinant of the feasibility and practicality of selection of a particular beneficiary to target. If the project is associated with a specific new development, then it is possible to apply a charge to either the developer at the time of development (given that it can be shown that the developer is driving the need for investment) or the subsequent individual land owners/users as beneficiaries of the project. Indeed, most councils experiencing high growth are seeking to recover costs through some type of development charge, as they are seeking to recover the costs associated with the installation of infrastructure with a project.

Alternatively, if the project involves ongoing contributions to the operation and maintenance of transport infrastructure and services, then the mechanism would most likely be applied to the individual land owners/users as the ongoing beneficiaries of the project.[32] It is these circumstances that typically apply through a targeted rate (eg in Auckland). Moreover, if the transport investment is associated with public transport then it is likely that individuals would also be targeted. However, we note that this should not be considered definitive as there are cases where developers have been charged to recover the costs associated with public transport.

9.3.1.1 Geographic scale of mechanism

In deciding the most appropriate mechanism to apply to individuals in particular circumstances, there is also a need to consider the geographic area over which transport investment costs should be recovered. Mechanisms can apply either at a jurisdictional level (eg the entire local council area), or to a series of smaller areas.

The type of infrastructure being constructed influences the geographic area used for the mechanism. For example, general transport infrastructure might be funded by a mechanism applied to a wide geographic area, whereas a specific road being built might be funded by a smaller area, close to the infrastructure. This equates the geographic area of the mechanism with the benefits being received by the individuals – general infrastructure funding benefits a wider number of individuals and so the geographic area of the mechanism should be larger. For example, charges to a subset of property owners (similar to 'targeted' rates) were used to partly fund the public transport streetcar system in Portland, Oregon. However, owner-occupied residences were excluded (see box 9.1).

32 The mechanism can be applied to either the land owner or the land user (eg a business that is leasing the premise). The advantage of requiring either the land owner or the land user to pay is likely to be related to administrative and legal considerations, since in principle land owners are likely to pass the cost of any mechanism directly through to the lessee. We have confined our discussion to land owners; however, we consider these two types of individuals to be interchangeable.

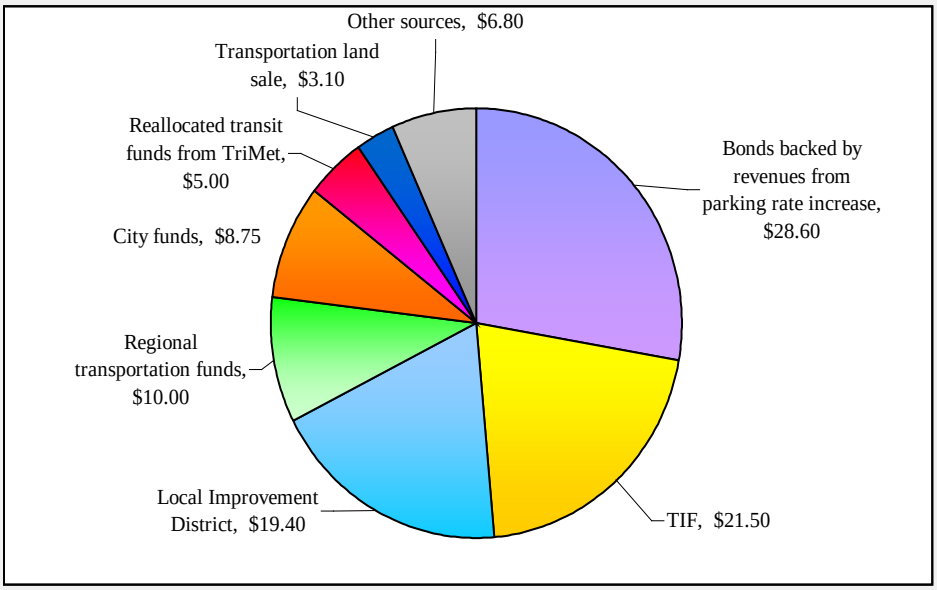
Box 9.1 Funding of Portland streetcars

The Portland Streetcar[33] is a public transport system that first started operating in 2001 over a 13km loop in Portland, Oregon, connecting a hospital, the downtown business district and Portland State University. It currently has 46 stations, each a few blocks apart, and approximately 12,000 people use the line each day (Center for Transit-Oriented Development 2007; Ontario Ministry of Energy and Infrastructure 2009).

It was originally designed as a transit-orientated development[34] connecting two brownfield sites. Consequently, it has stimulated significant redevelopment in downtown Portland, with developments near the line now being constructed at 90% of the allowable density. The line cost approximately $100 million in construction, with this producing over $2.3 billion in economic development and investment along the streetcar line (Los Angeles Streetcar Inc. 2009).

The line was financed through a combination of traditional methods of funding (eg government revenue and fares) as well as 'alternative' value capture mechanisms (bonds backed by revenue from increased short-term parking rates, TIF, and charges recovered from 'special assessment' districts). These value capture mechanisms comprised nearly three-quarters of the total funding required – see the chart following.

Figure 9.1 Funding for Portland streetcars (million) (Lari et al 2009, pI-23)



The first 'alternative' funding mechanism was the use of bonds backed by revenue from increased short-term parking rates of 20 cents per hour. This raised 28% of the costs of the system.

The second mechanism was the use of TIF. Approximately 22% in funds was recovered from the South Park Block URA and North Macadam URA tax increment districts (Lari et al 2009, pII-91). In order to increase public support for the project, owner-occupier residents were exempt from paying the levy in these districts.

33 A streetcar is a public transport vehicle that runs on electricity and travels on rails (often known as a tram).

34 This is a mixed-use residential or commercial development that is designed to maximise access to public transport, and often incorporates features to encourage transit ridership.

The third mechanism was the introduction of a charge in a series of districts (called 'special assessment' districts), with the area agreed to by property owners. This imposed a fee on non-owner-occupied residences within a district. The fee was based on a formula that considered proximity to the line and size of the property. For example, a property with a value of $5 million, a land area of 10,000 square feet and situated 200 feet from a streetcar site would have an estimated assessment of $21,600.[35] This amount was then transformed into an ongoing annual payment. Continuing with the above example, based on a 20-year recovery rate the annual payments per property would be approximately $1880 per year.

A working group was established for the construction phases of the project, allowing for substantive owner input and some level of owner-related control over the process. This improved the overall perception of the 'special assessment' financing tool within the community (ibid, pII-141.

Local transport officials consider that one of the reasons for the effectiveness of these value capture mechanisms in Portland is that the city does not have a sales tax dedicated to transport. This may also potentially explain why residents in Portland have been more supportive of TIF than residents in other cities (US Government Accountability Office 2010). Further, raising funds for the streetcar line through these processes was relatively uncontroversial since the benefits were clear and direct to the property owners. The use of these alternative funding mechanisms has been widely recognised as allowing more local control and flexibility in planning and implementation.

An extension to the line is currently being constructed at an estimated cost of $148 million, and will provide 28 new streetcar stops by the time it is completed in 2012. This extension will also be funded by a mix of traditional and alternative funding mechanisms, with $15.5 million (10%) recovered from a local improvement district.

Development contributions should typically have some geographic component to them, reflecting the different costs associated with constructing infrastructure in different areas of the city. These mechanisms are commonly used in the US, particularly joint developments (see box 9.2). That said, we note that during times of economic downturn it may be more appropriate to apply a city-wide development contribution, to encourage development.

35 First, the value is calculated as the value assessment rate ($0.006) x value of the property ($5,000,000) = $30,000. Second, the distance factor is calculated as 1 – (the distance from the streetcar (200) / 720) = 0.72. Third, the assessment payment is equal to the value x distance factor = $30,000 x 0.72 = $21,600.

Box 9.2 Washington Metropolitan Area Transit Authority Joint Development

The public transit agency in Washington – the Washington Metropolitan Area Transit Authority (WMATA) – has actively engaged in joint development for over 30 years. This is because the WMATA has no dedicated funding sources, and so it relies on contributions from governments, as well as passenger fares. The goal of joint development is to partner with private developers who can contribute financially to both capital and operating expenditure, and provide additional funds.

WMATA has undertaken numerous joint development projects over the years. Projects that are encouraged include those that integrate transport facilities, increase the attractiveness of public transport, generate long-term revenues and encourage growth in the local community. The types of joint development that WMATA engages in include:

- leasing and selling property that is adjacent to or on transport infrastructure
- leasing and selling development rights associated with its property
- sharing the operating costs of ventilation and heating systems and transit stations
- requiring 'connections fees' from those retailers who want to connect their retail space to transit stations.

Payments from businesses can therefore take a number of forms, including one-off lump sum payments, annual lease payments, or ongoing contributions or connection fees. All of these mechanisms 'capture' the value of the surrounding property that is associated with being located near the transport infrastructure. One of the key measures of success of the use of the joint development payments is the formation of a real estate division within WMATA.

The most successful programmes for WMATA have been those that involve air rights. The Bethesda Metro Center, an office/retail/hotel project that sits on top of the Bethesda Metrorail station, generates $1.6 million annually in air rights rent for the WMATA (Lari et al 2009, ppII-158). Given that the scope of the joint development was project-specific, revenues have been sensitive to the project and local real estate conditions. To date, the total value of the 52 joint development projects that the WMATA has been involved in is $5 billion (Goody Clancy 2008).

One criticism historically used against joint development has been the lack of community consultation. Previously, WMATA engaged directly with the development community. However, following public backlash over a particular project's design and potential impacts on housing affordability, the WMATA started a programme that actively sought community input into the planning and design of future projects.

9.3.2 Applying a one-off or ongoing charge

Value capture mechanisms can recover costs on either a one-off or an ongoing basis. For example, development contributions are typically applied as a one-off charge, whereas targeted rates are applied as an ongoing charge.

The choice between these two approaches depends on the capacity, appropriateness and risks of the party undertaking the investment borrowing on the basis of an expected stream of revenue from beneficiaries, as compared with needing to return the costs of the investment as soon as possible following its construction. The choice is also influenced by a desire to align the benefits received by the targeted beneficiary with the payment mechanism.

The majority of mechanisms that are applied to individuals are more suited to ongoing payments and so can be used for ongoing transport operating and maintenance costs, or for funding financing costs associated with capital expenditure for infrastructure.[36] This is because these mechanisms can feasibly be operated for several years and this ensures an ongoing amount is recovered from individuals each year. Importantly, ongoing payments can ease affordability concerns for households. For example, a 2% targeted rate per annum, recovered over 15 years, is approximately equivalent to a one-off tax of 20% (in net present-value terms). This means that the same funds can be collected from individuals while reducing the near-term impact on households.

Funding ongoing maintenance of transport investment is a major concern for some councils. Therefore, the life of the investment is an important consideration in deciding on the time period for which an ongoing payment is levied. While most transport infrastructure is long-lived, prior experience suggests that most mechanisms on individuals operate successfully with a 10–15-year time span.

Those funds that are recovered from developers are recovered on a lump sum basis and so are more suitable for funding new investments. This again aligns with the benefits received by developers – developers receive benefits upon the sale of developed properties. Indeed, developers in New Zealand have expressed a preference for payments to be made as late as possible in the development process, or to be connected with when demand starts (Auckland Council 2011a). This also minimises the risks for the government, since developers must pay 'up front'.

The choice between using a one-off or ongoing approach is also influenced by the time required to set up the mechanism. For example:

- TIF and targeted rates require districts to be agreed upon and set up prior to the mechanism commencing. The funding mechanism must be developed prior to the infrastructure being constructed or services being provided, which therefore allows the funds to be used for new investments.
- Mechanisms applied to developers must be agreed to or paid prior to the construction of the transport infrastructure or start of services. The mechanism and charges must be developed before the infrastructure is constructed or at the start of services, and so the funds should be used to fund new investments.

9.3.3 Incentives created

The introduction of any new value capture mechanism will create both winners and losers. It is therefore important to consider the incentives for these winners and losers, as well as for the investment decision maker and the party on whom the value capture mechanism will be levied.

The incentives created for the investment decision maker are linked to the risks involved in the recovery of the costs of the investment. For example, a value capture mechanism can be designed so that the recovery of funds is linked to the actual increase in land values, which are objectively determined by an independent valuer. Under this approach, the investment decision maker needs to ensure that the investment will deliver the intended land value outcomes in order to ensure that the costs of the investment are recovered.

Funding transport through rates typically has this characteristic, which can create problems for transport investment funding during times of downturns in the economy – eg if property values do not rise as much

36 We note that those funds recovered from individual beneficiaries can also be recovered on a lump sum basis.

as expected, then the government will be left to fund the investment from other sources. In order to mitigate these concerns, some jurisdictions do not set an end date for a TIF scheme, and simply state that it will finish when the debt has been recovered – in this circumstance an ongoing targeted rate would be more appropriate (Johnson 2002).

In contrast, the mechanism might be designed so as to guarantee the return of funds invested in the project by simply being a charge based on the level of land value (say, 2–3 cents per $1000 of land value). This approach does not impose financial disciplines on the investment decision maker to ensure that the project is worthwhile, as expressed by the land value benefits outweighing the costs.

The design of the value capture mechanism also creates incentives for the party responsible for paying under the mechanism. For example, a flat charge on land that is not linked to land value or land value changes creates incentives for developers to develop land in order to realise the value and so pay the transport-related charges.[37]

In addition, charging developers for the transport-related costs caused by a new development creates signals about land use location choice. Charging developers for these transport costs therefore promotes efficient land use, because a developer will seek to maximise the return from a development by making land use location decisions based on a consideration of all of the costs (including any transport costs) related to a development. However, as recognised in circumstances where any development at all should be encouraged (as opposed to development in certain areas), it may be more appropriate to implement a standard, city-wide flat fee in order to encourage development – these circumstances are likely to arise during an economic downturn.

9.3.4 Ease of implementation

A number of value capture mechanisms target the same beneficiary and have similar payment mechanisms. The choice between using a particular mechanism is therefore often linked to the ease of implementation – both in terms of the current administrative and legislative arrangements, and also the level of likely public acceptability. We discuss these factors below.

The ease of implementation of a value capture mechanism is critically dependent on the administrative and legislative environment within which the mechanism is being applied. In terms of administrative arrangements, any value capture mechanism requires significant start-up administrative resources to set up the charging scheme. This might involve examining the likely impact on property values from an investment, designing the mechanism and undertaking public consultation. All of these factors need to be considered as part of an examination of the ease of implementation of a particular mechanism in specific circumstances.

Important to the introduction of any mechanism is obtaining public acceptance. This is particularly important for the introduction of any new value capture mechanisms (eg the introduction of TIF, as contemplated in New Zealand). Indeed, the parties interviewed highlighted the importance of getting the community on board with any new mechanism and bringing the community along through discussions of the mechanism.

37 That said, there are significant practical difficulties with charging on the basis of land per se, and placing charges on land value instead has its own issues (including, amongst other things, the fact that the charges will affect the land value itself, and the cost of undertaking frequent revaluations of land and the broader effects on decisions that affect economic performance).

For example, significant consultation was undertaken prior to the Crossrail Bill being implemented in the UK. In 2001, Cross London Rail Links Limited (CLRLL) was formed to develop and promote the project. It engaged in two separate 12-week rounds of public consultation during 2003 and 2004. This included setting up public information centres, mail drops to those potentially affected, newsletters, dedicated websites and a 24-hour telephone helpline.

Moreover, the Crossrail Bill was introduced as a 'hybrid bill', meaning that it was a public bill that affects the private interests of particular persons or organisations. This gives individuals an opportunity to oppose the bill or seek amendment before a select committee in either or both of the Houses of Parliament. It is then treated as a public bill. This was done in order to gain public acceptance of the Crossrail project, as opposed to the sources of funds themselves.

One council identified that they have an informed stakeholder group, consisting of major industry businesses, industry bodies and other individuals, which is used to gain stakeholder acceptance. This group is involved in the development of different funding and financing policies by the council, and these new policies have been positively received. This can be somewhat attributed to the early involvement of these stakeholders and the use of the group in making sure that stakeholders understand these mechanisms.

Public consultation has also been shown to be important to implementing new TIF districts in the US. A number of the best-practice guides have set out ways in which public acceptance can be better achieved. These include:

- determining common ground between the project goal and political goals – eg if the project goal is to raise funds to finance a new rail line, the political goal should be aligned with this
- establishing and using appropriate channels of communication – eg establishment of an interested parties group
- educating the community – eg through raising awareness of a particular mechanism and what the mechanism can achieve
- formulating a communications plan, with this clearly communicating the benefits of a particular funding mechanism to the community – eg expansion of the tax base, increase in revenue, creation of new jobs, diversification of the economy
- ongoing monitoring and continuing disclosure of the mechanism.

One example provided in the guides is the introduction of a TIF district that was not successful (Council of Development Finance Agencies and International Council of Shopping Centres 2007, p20). It identified that if the authority had been more conscious of the need for public consultation, then implementation may have gone more smoothly. They noted that the authority should have:

- been more forthcoming about all the elements of the TIF prior to announcing the project
- met with community representatives and officials before announcing the project, in order to get these individuals and organisations on-side
- made some concessions to the community in order to gain public acceptance.

9.4 Calculating the level of a value capture charge

The final matter to consider is the methodology to use to calculate the level of a value capture charge. Where the adjacent landowners/developers are the principal beneficiaries, this may be straightforward – as

long as those benefits outweigh the costs, the charge should be sufficient to recover the efficient costs of the project.

However, there are difficulties where the direct landowner/developer benefits are not sufficient on their own to justify a project. In these circumstances, landowners/developers should fund up to an amount equal to the direct benefits they will receive. As we have acknowledged, calculating this can be exceedingly difficult, particularly ahead of a project proceeding. This is because, in part, the benefits of a given project are likely to be the direct transport cost-saving benefits to landowners, which is offset by increased development competition, dampening land price rises and associated rents.

These complex interactions might justify a conservative charging approach – ie recouping a relatively small fraction of the expected benefit from land owners through a value capture charge.

This discussion highlights the importance of considering the implications of a value capture charge for the costs of development and any associated impact on development activity. A recent paper by Evans and Guthrie (2012) on a study of the housing market in 95 cities in the US estimated that a 1% increase in development costs increased city-wide house prices by between 0.5 and 1%. The implications for development costs and house prices of introducing value capture charges in New Zealand should therefore be considered further.

9.5 Summary

Choosing a value capture mechanism to fund transport infrastructure should be guided by the legislative requirements of each mechanism and the circumstances within which funding is being sought. There are four key factors that should be considered, namely:

- the choice of non-user beneficiary targeted
- whether a one-off or ongoing charge is more appropriate
- the incentives created
- the level of public acceptability.

The use of a value capture mechanism should be considered on a case-by-case basis, depending upon the relevant circumstances. Indeed, while the above discussion recommended some particular mechanisms as more appropriate in particular circumstances, we emphasise that the *individual* circumstances should be considered each and every time. The necessary considerations in the establishment or implementation of a value capture mechanism are explored more fully in the Local Authority Guide in appendix C of this report.

10 Conclusions

There are three 'in principle' sources for funding transport infrastructure: general government revenue; user charges; and contributions from non-user beneficiaries. The best funding approach for a particular project or circumstance will involve one or a combination of these options.

That said, there are a number of existing mechanisms in New Zealand that can be considered to capture value from non-user beneficiaries: development contributions; financial contributions; targeted rates; and use of negotiated mechanisms outside of the current legislative and regulatory arrangements. These have increasingly been used by councils to fund transport infrastructure.

These current mechanisms have the following limitations:

- Development contributions can only be applied by individual territorial authorities (ie not regional authorities[38]) and cannot be applied to operating and maintenance expenditure, which has been identified by some local authorities as a major expense. There would be benefits in increasing discussions between councils in order to develop informal subregional development contribution policies.
- Financial contributions can only be used where there are environmental effects, and are open to merits-based appeals through the Environment Court.
- Targeted rates typically have low public acceptability and are seen as administratively complex to implement.
- Negotiated mechanisms have reduced transparency since there is no formal requirement to consult, and have large transaction costs since they need to be negotiated 'from scratch' each time.

Despite these limitations, value capture mechanisms can provide an alternative source of funds in certain circumstances. Indeed, development contributions have been used effectively by those councils experiencing high growth. In these circumstances, an effective development contributions policy has been developed due to councils facing significant growth pressures, and so being forced to find additional funds.

We believe that councils should investigate the use of value capture mechanisms prior to growth creating pressures on transport infrastructure. This would enable these mechanisms to be readily used when growth pressures do occur.

Once these policies are in place, the use of a value capture mechanism must be considered relative to the individual circumstances applying in the relevant council. In other words, the specific funding and 'social philosophy' considerations of a particular council are important when considering which value capture mechanisms to implement.

These considerations should include the following questions:

- Is the beneficiary readily identifiable?
- Is the benefit associated with the investment readily identifiable, or would it be hard to distinguish?

38 That said, there may be legitimate reasons why development contributions, as set out in the *Local Government Act,* have not been previously extended beyond its use by territorial authorities. We did not investigate these reasons as part of this project.

If the answer to either of the above questions is 'No', then value capture mechanisms should not be explored as a potential funding mechanism. However, if the answer to both questions is 'Yes', then the size of the project and the administrative costs should be considered through the question:

- Would the benefits associated with raising additional funds outweigh the administrative costs associated with implementing a value capture mechanism?

If the answer to this is 'Yes', then value capture mechanisms should be considered as a potential funding source.

However, the form the mechanism should take depends upon the individual circumstances, requiring consideration of:

- the choice of the non-user beneficiary targeted
- whether it is a one-off or ongoing charge
- the incentives created
- the level of public acceptability.

This shows that value capture mechanisms are most likely to be of value for larger projects where a clear association between the project and beneficiaries can be developed. Indeed, this is the experience internationally with the use of these mechanisms. The use of a value capture mechanism should therefore be considered on a case-by-case basis, depending upon the relevant circumstances. The necessary considerations in the establishment or implementation of a value capture mechanism are explored more fully in the Local Authority Guide in appendix C of this report.

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Appendix A Stakeholder engagement

This report benefited from engagement undertaken with key stakeholders. This comprised detailed targeted discussions with relevant parties in order to allow the project team to more readily identify the potential barriers and impediments to implementing alternative funding mechanisms in New Zealand.

The individuals included representatives from central, local and regional governments and private sector organisations, as follows:[39]

- Auckland Council
- Christchurch City Council
- Department of Internal Affairs
- Greater Wellington Regional Council
- Hamilton City Council
- Local Government New Zealand
- Marlborough Roads
- Ministry of Transport
- New Zealand Council for Infrastructure Development
- New Zealand Transport Agency
- New Zealand Treasury
- Planning Institute
- Southland District Council
- Tauranga City Council
- Wellington City Council.

A briefing paper from the NZTA and a discussion paper prepared by the project team were circulated approximately one week prior to the interviews. The interviews were focused on answering questions posed in the discussion paper, and each took approximately 60–90 minutes. The questions contained in the discussion paper are outlined here – these formed the basis of our targeted discussions with interested parties.

1 What are the current and emerging problems in using the provisions in the Local Government Act and Resource Management Act in raising revenue for transport infrastructure and services investment in New Zealand?

2 What transport-related charges for land owners, developers or businesses are used in New Zealand, if any?

3 Are there any problems with the use of existing transport-related charges for land owners, developers or businesses?

39 These organisations accepted our request for interviews. Several other organisations were approached, but declined.

4 What barriers are there to charging land owners, developers or businesses some or all of the costs of transport investment?

5 What opportunities exist for using value capture mechanisms to fund transport investment in New Zealand?

6 What barriers exist to using value capture mechanisms in New Zealand?

7 What specific circumstances or characteristics need to be considered in any potential implementation of value capture mechanisms?

Appendix B Current legislative and regulatory framework for funding transport in New Zealand

This appendix sets out the current legislative and regulatory framework for funding transport infrastructure within New Zealand.

B1 Legislative framework

Four main Acts comprise the legislative framework relating to the land transport network in New Zealand. These are discussed in more detail below.

B1.1 Land Transport Management Act 2003

The Land Transport Management Act 2003 (LTMA) is the main legal framework for managing and funding land transport activities, with the purpose of contributing to the 'aim of achieving an affordable, integrated, safe, responsive and sustainable land transport system'.

The LTMA sets out the following functions and roles in relation to funding of land transport within New Zealand, namely:

- establishment of the National Land Transport Fund (s.10)
- development of a national and regional land transport programme (ss.12-18H, and 19-19F)
- development of a National Land Transport Strategy (ss.66–72) and regional land transport strategies (ss.3–74)
- a GPS on Land Transport Funding (ss.84–87), which is issued by the Minister of Transport every three years and allows the Minister to provide guidance to the NZTA and the land transport sector more generally on the government's short- to medium-term transport policy objectives and outcomes for the National Land Transport Programme. It also links the amount of revenue raised from road users with the planned levels of expenditure from the NTLF.
- the objective and functions of the New Zealand Transport Agency (ss.92–104)
- the functions, procedures and compositions of regional transport committees (ss.105–107).

B1.2 Local Government Act 2002 (LGA)

The Local Government Act 2002 (LGA) defines local government in New Zealand and provides a framework for councils to decide which activities they will undertake, and the manner in which they will undertake them. It promotes the accountability of councils to their communities and provides for councils to take a broader role in promoting the broader objectives (ie social, economic, environmental and cultural well-being) of communities, while taking a sustainable development approach.

This Act includes the following requirements of councils in relation to their plans and policies:

- The council must have specified funding and financial policies, which must state the amount of operating and capital expenditure that is to be funded from the different funding sources (ss.102–103).
- A policy relating to development and financial contributions must be adopted (s.106).

- The council must set out any conditions and requirements surrounding the payment of development contributions (ss.197–211).

The LGA provides councils with the powers to set and collect rates to fund local government activities. In particular, this provides them with the ability to charge general (s.13) and targeted (s.16) rates. These may also be set differentially. It also sets out the procedure for how rates must be set (ss.23–24).

B1.3 Resource Management Act 1991 (RMA)

The Resource Management Act (RMA) 1991 regulates access to all natural and physical resources within New Zealand, with the overall objective being to ensure sustainable management of these resources. The RMA therefore sets out the functions, power and duties of local government in relation to the resource consent and designation process. These will impact on any new potential transport infrastructure or modification of existing infrastructure within New Zealand. If new infrastructure is proposed to be built and the activity is not allowed 'as of right' in the relevant regional or local plan, then resource consent must be obtained from the relevant council.

The RMA also contains provisions for the use of financial contributions. As part of a condition of resource consent, a condition may be required that a financial contribution be made, with this being either money and/or land (s.108).

B1.4 Public Transport Management Act 2008

The Public Transport Management Act 2008 manages public transport in New Zealand. Among other things, it requires the NZTA to produce guidelines for, and monitor the development of, regional public transport plans. It increases the powers of regional councils to plan and manage public transport services, through allowing regional councils to:

- require all of any services to be provided under contract to the council
- impose controls on commercial public transport services
- regulate the registration of public transport services.

The Act also clarifies when a regional public transport plan is needed, what its purpose is and the process for developing a plan. Regional councils and others that provide public transport must prepare regional public transport plans.

B2 Institutional arrangements

Two main institutional groups are responsible for roads within New Zealand, namely:

- the New Zealand Transport Agency (NZTA)
- various local government bodies.

B2.1 New Zealand Transport Agency (NZTA)

The NZTA is a crown entity, formed in 2008 with the purpose of being responsible for providing an 'affordable, integrated, safe, responsive and sustainable land transport system'. The NZTA was formed under the Land Transport Management Amendment Act 2008 and has a number of planning, programming and funding functions, specifically to:

- take responsibility for the state highway system, including its planning and management

- give effect to the GPS on land transport funding
- approve funding of activities from the National Land Transport Fund under s.20 of the Land Transport Management Act 2003
- approve procurement procedures
- conduct various other functions (eg training) related to the provision of an affordable, safe and sustainable land transport system (NZTA 2011).

The NZTA also has regional-level responsibilities that are carried out by six regional offices. These offices are responsible for (among other things) maintaining relationships with local government and other stakeholders, sitting on regional transport committees, and assessing regional land transport strategies and regional land transport programmes and implementation plans.

B2.2 Local government

Local government bodies also play a key role in the road network, since they are responsible for the development, maintenance and operation of a large network of local roads, as well as for the provision of public transport services and infrastructure. The roles of local government bodies are set out in more detail below, differentiated by type of body.

B2.2.1 Regional councils and unitary authorities

Regional councils are the 'top tier' of local government in New Zealand – ie they sit above territorial authorities as described below. Their responsibilities include:

- environmental management (including water, contaminant discharge and coastal management, river and lake management, regional land management)
- regional transport (including public transport)
- harbours
- biosecurity or pest management.

Unitary councils are those territorial authorities (district or city, see section B.2.2.2 below) that also perform the functions of a regional council. New Zealand has five unitary authorities.

The function and roles of regional councils and unitary authorities are defined in the Land Transport Management Act 2002, and include:

- approving regional land transport strategies, which establish a region's transport objectives (these strategies are developed by regional transport committees)
- approving regional land transport programmes, which list and prioritise activities that have been proposed by councils in the region, and the activities proposed for state highways (with these developed by regional transport committees[40])
- assessing programmes against the regional land transport strategy and the GPS on land transport funding

40 These prepare regional land transport strategies and regional land transport programmes. Further, they provide advice where requested by the regional council. The composition of these committees is set out in the Land Transport Management Act 2002, with members comprising local government, cultural, NZTA and NZTS objective representatives.

- planning for public transport activities to be delivered in their respective region, and submitting these activities for inclusion in regional land transport programmes
- planning for and delivering local roading activities within their regions.

B2.2.2 Territorial authorities

Territorial authorities (ie city and district councils) have responsibility for local roads, footpaths and street lighting, as well as local planning, road safety works and parking services, and the maintenance of these roads. They also actively participate in land transport planning and the National Land Transport Programme funding process.

A territorial authority proposes and consults on its own transport activities, including roading, and prepares a programme of land transport activities once every three years for inclusion in the regional land transport programme. Territorial authorities are able to consult on these activities through their long-term plan process. The council representative on the regional transport committee has functions that include taking part in the regional prioritisation process. Some territorial authorities have delegated authority to perform regional council functions in regards to transport.

B2.2.3 Auckland Council

Auckland has a different governance structure from the rest of New Zealand – it can be considered a unitary authority. In 2010, the eight previous councils (one regional council, and seven city and district councils) were amalgamated into a 'super city' – Auckland Council. A *separate* regional transport authority (Auckland Transport) is responsible for all local and regional transport, incorporating the transport functions of the previous eight councils as well as the Auckland Regional Transport Authority.[41]

The distinction between the two entities is that the Council *owns* the infrastructure, while Auckland Transport *manages* it. In particular, the Council agrees a statement of intent with Auckland Transport that contains performance measures for transport. The Council also sets the strategic direction and sets out transport funding.

41 Auckland Transport is a council-controlled organisation – ie a local authority that controls 50% or more of the votes of the company.

Appendix C Using value capture mechanisms to fund transport infrastructure: a guide for local authorities

January 2013

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Local Authority Guide abbreviations and acronyms

FAR	Funding assistance rate
LGA	Local Government Act 2002
NLTF	National Land Transport Fund
NZTA	New Zealand Transport Agency
RMA	Resource Management Act 1991
TIF	Tax increment financing

Local Authority Guide contents

C1 Introduction

Local authorities (ie city, district and regional councils) in New Zealand are required to co-contribute to the cost of maintaining and upgrading transport infrastructure within their areas.[42] Typically, this means that the local authority component of transport infrastructure costs is funded by all land owners within the area through general rates, irrespective of whether they benefit from the infrastructure. However, throughout the world transport infrastructure is increasingly being funded by charges that more closely target the direct beneficiaries of the infrastructure. These charges can take the form of direct user charges (eg tolls), and/or charges on land owners or developers (value capture mechanisms).

C1.1 Who is this Local Authority Guide designed for?

This Local Authority Guide provides information to local authorities on the current opportunities to make greater use of charges on land owners and/or developers when funding transport infrastructure. It aims to increase local authorities' knowledge regarding these mechanisms, and so inform councils on what mechanisms can potentially be used to fund transport infrastructure. By charging land owners and/or developers who directly benefit from identified transport infrastructure, better incentives are created to ensure that the infrastructure is valued by the community, and so will deliver worthwhile transport outcomes. In addition, it provides local authorities with greater funding flexibility, particularly where there are clear benefits for the adjacent land users from a proposed transport infrastructure project.

This Local Authority Guide has been designed to bring together 'best practice' in the use of charging mechanisms applied to land owners and developers, in order to facilitate the greater use of these mechanisms when and where they are appropriate. Importantly, this Local Authority Guide does not consider how local authorities could use other potential sources of funds for transport infrastructure raised directly from users, such as tolls or user fees.

The charging mechanisms discussed here are unlikely to be used to fund the *entire* cost of infrastructure – they are commonly used to fund only *part* of the cost of transport infrastructure. This is because non-user beneficiaries of transport typically do not receive benefits that are large enough to pay for the entire infrastructure. However, given that many large infrastructure projects are significant in size, even partial funding through value capture charging mechanisms could provide a substantial contribution.

The focus in this Local Authority Guide is on how to best fund *transport* infrastructure. However, there are many parallels between funding transport infrastructure and other public infrastructure provided by local authorities – eg water and wastewater infrastructure. Indeed, many of the mechanisms discussed in this Guide are also used elsewhere to fund other types of public infrastructure. As a consequence, this Local Authority Guide could be applied more broadly to other types of infrastructure that are currently funded by local authorities in New Zealand.

This Guide focuses on *funding mechanisms*, which is distinct from the process of determining whether a transport infrastructure project should proceed. As with any transport infrastructure project, any projects funded in total or in part through value capture mechanisms should be based on the priorities developed through an investment plan, where the projects are supported by robust businesses cases that clearly identify how the benefits of investment outweigh the costs. The government's National Infrastructure Unit

42 Some funds for transport infrastructure are provided by the national government through the National Land Transport Programme.

has produced a guideline as to how business cases should be undertaken, which provides useful guidance to councils.[43]

Importantly, exploring the use of value capture mechanisms is likely to assist with the development of a project business case, as it provides additional information on the potential benefits, and who is likely to benefit, from a proposed project.

C1.2 Structure of this Local Authority Guide

The remainder of this Guide is structured as follows:

- Section C2 provides information on how transport infrastructure can be funded in general
- Section C3 discusses what value capture mechanisms are.
- Section C4 sets out what should be considered in choosing a value capture mechanism.
- Section C5 discusses the potential use of development contributions by local authorities.
- Section C6 discusses the potential use of financial contributions by local authorities.
- Section C7 discusses the potential use of targeted rates by local authorities.
- Section C8 discusses the use of value capture mechanisms that may exist outside of legislation.
- Section C9 provides a checklist that should be followed by local authorities when considering whether to introduce a value capture mechanism.
- Section C10 details the references cited in this Local Authority Guide.
- A glossary of commonly used terms that are mentioned in this Guide is provided at the end of the report.

This Guide has been prepared as part of the New Zealand Transport Agency's (NZTA's) research programme, which funds research on behalf of the transport sector within New Zealand.

43 See www.infrastructure.govt.nz/publications/betterbusinesscases

C2 Mechanisms for funding transport investment

C2.1 How can transport infrastructure be funded?

There are two principal cost components for transport investment, namely:

- the initial cost of the construction of new infrastructure – ie capital expenditure such as construction of a new road, bridge or track
- the cost of ongoing maintenance and operation of existing infrastructure and services – ie operating expenditure such as maintenance of road pavement and undertaking repairs on public transport vehicles.

In principle, transport investment can be funded from the following three main sources:

- *Government consolidated revenue (ie from general government revenue)*: Services with 'public-good' characteristics are typically funded from this source, since the services are deemed to benefit society as a whole and it is often difficult or not desirable to charge users directly for the service.
- *User charges, where the users of transport infrastructure or services pay for the use of the infrastructure or service*: Services that are 'excludable' are typically funded in this way since costs are easily attributed to users. For example, some local councils charge residents a per-bag charge for collection of rubbish in New Zealand, with those residents who produce more rubbish for collection paying more.
- *Charges to landowners or developers (ie charges targeted at non-user beneficiaries of the transport investment)*: Examples include a targeted rate that may be applied to those properties that benefit from the construction of community infrastructure.

Each of these funding sources and their application to transport investment is discussed in more detail below.

C2.1.1 Government consolidated revenue

Government consolidated revenue is used to fund the majority of government services, programmes and activities. Receipts from taxes and many government charges are collected within consolidated revenue and then used to fund government activities. Importantly, there is no clear or direct link between the amount of taxes paid by individuals and the provision of government goods and services.

This funding source is used to finance some public infrastructure and government services, since the services provide benefits to all individuals in a country. The types of services funded from consolidated revenue typically exhibit the public-good characteristics of being:

- non-rivalrous – the use of the service by one customer does not affect the use of the service by another customer
- non-excludable – people cannot be excluded from using the service.

For example, all residents benefit from having a national defence force that can protect their country, so all residents should contribute to defence spending through their taxes. A defence force is non-excludable and non-rivalrous since it is not possible to exclude anyone in a particular country from the benefits associated with defence.

In some circumstances, the road network can be considered to have these characteristics. Uncongested roads can be considered to be 'non-rivalrous', as well as individual roads being considered 'non-excludable' (although the road system as a whole is excludable, since vehicles must be registered in order to travel on the network.) Therefore, government revenue is often used to fund transport investment. For example, in Australia consolidated revenue funds a significant proportion of transport investment, with funds distributed to each jurisdiction through a system of grants.

Since 2008, New Zealand central government revenue from the consolidated fund has no longer formed part of the National Land Transport Fund (NLTF). However, some specific land transport projects and activities are funded by central government through annual Crown appropriations rather than through the NLTF – most notably rail capital investments. For example, a Crown grant of up to $90 million will assist in funding additional trains for the Auckland rail metro network.[44]

Local government revenue for transport comes from sources such as rates, development contributions and borrowing. These revenue sources are developed by local government under the provisions of the Local Government Act 2002.

C2.1.2 User charges

For some government services, a fee is charged to the user of the service. The fee might recover all or part of the costs incurred by government in providing the service.

Charging the user of a service the cost of providing it has two purposes. First, it creates a signal to the user about the costs involved and so promotes the appropriate use of the service (ie users will only make use of the service if the benefits received outweigh the costs imposed). Economists generally refer to this as promoting 'allocative efficiency'.[45] Second, it is seen as equitable because those people who do not directly benefit from the service also do not fund (or at least only partially fund) the provision of the service.

In order to facilitate a 'fee for service' approach to charging, the service must be excludable – ie it is possible to exclude people from consuming the goods and services.[46] For example, the services provided by a public swimming pool are excludable (ie those customers who do not pay the entrance fee cannot use the pool).[47]

User charges are commonly used to fund (completely or partially) public transport, through the use of fares. It can be seen that public transport exhibits the features set out above – namely, people can be refused entry to the bus if they do not pay the fare ('excludable'); and overcrowding on the bus may negatively influence a passenger's experience ('rivalrous').

Road investment is also funded from user charges such as registration fees, fares and permits, and petrol taxes. For example, in New Zealand the NLTF is a fully hypothecated or dedicated fund from fuel excise

44 See www.transport.govt.nz/ourwork/rail/aucklandmetrorail/

45 Allocative efficiency describes the promotion of efficiency (ie greater beneficial outcomes to society) by making better use of existing resources.

46 Services may also be rivalrous (ie where the use of the service by one customer affects the use of others); however, this is not a necessary condition for implementing user charges. If a service is both excludable and rivalrous then it is termed a 'private' good. Excludable but non-rivalrous goods are termed 'club' goods.

47 Further, this is also an example of a rivalrous good – if many customers use the pool it will become overcrowded and so a patron may not be able to swim in the lane they want to use.

duty (petrol tax) and road user charges, for land transport purposes under a permanent legislative authority. For the NLTF, the government applies the principle that revenue raised from road users should be spent on the road system as well as funding some other activities that benefit road users.

C2.1.3 Contributions from land owners and developers

For most services, the beneficiaries of a service are simply the direct users of the service. For example, in the electricity industry customers benefit from being able to heat and cool their properties through using electricity. In this case, a beneficiary charge is no different from a user charge.

However, transport is different from other infrastructure services because non-users of transport can also benefit from transport investment. For example, a business may not directly use an expanded public transport route that provides services near its premises, but it will benefit from having increased accessibility and foot traffic to its business. Potential customers will be more easily able to access the business and so sales may increase.

Charging all beneficiaries for transport investment contributes to the promotion of efficient investment in and use of transport, by aligning the recovery of costs to the beneficiary of those costs. This minimises the scope for cross-subsidisation between beneficiaries, and so reduces the need to recover costs from transport users directly in excess of the direct marginal cost of use of transport. This becomes important where the users and the beneficiaries are not one and the same – as can be the case in transport – and where users are particularly price sensitive.

Contributions from beneficiaries are also termed ‘value capture’ mechanisms, with these concentrated on ‘capturing’ the ‘value’ that is created by transport investment. These have been used globally in combination with more traditional revenue sources to contribute to the funding of transport. For example, betterment taxes are commonly used in the UK in order to fund infrastructure such as transport, water and wastewater services. In New Zealand, local authorities use rates, and financial and development contributions, to partly fund transport infrastructure and services.

C2.2 Summary

The funding mechanisms that have been considered here are simply one part of a spectrum of funding options that are available for transport investment. The best funding approach for a particular project or circumstance will most likely involve one or a combination of these options.

C3 What are value capture mechanisms?

One option for funding transport is to use contributions from non-user beneficiaries. These contributions are known as value capture mechanisms.

To understand these mechanisms, a distinction must be drawn between the concepts of value *capture* and value *creation*. Value creation is where an action or investment increases the value of land in a location, thereby accruing benefits to the land owner and/or occupier of a specific location. This additional land value created through increased accessibility arises from:

- improvements from the development of the land – eg investments in the building or amenity of land
- improvements in the surrounding community/social amenity – eg investments in local parks, schools, water and electricity infrastructure
- improvements in the accessibility of the land – eg investments in public transport or road infrastructure.

For example, studies in North America have shown a strong relationship between the impact on land value and transport investment. The impact ranges from a 5–10% increase on residential values, to a 13–30% increase on commercial properties within close proximity to the infrastructure (Doherty 2005). Value is also *created* for those users of the transport infrastructure who benefit from being able to access more places through use of roads and public transport that are higher in both quality and quantity. The increased accessibility and use of infrastructure creates a number of benefits that accrue to the community as a whole, as well as to individual businesses, developers and residents. For example:

- the community or public benefit from increased social cohesion and improvements in productivity that can arise
- businesses benefit from decreased freight and business-related transport costs
- developers benefit from increased values of the land being developed
- homeowners benefit from shorter commutes, improved access to key infrastructure such as schools and hospitals, and improved access to public transport.

Value capture mechanisms are therefore a means of funding the cost of these land-improving investments by either 'capturing' part of the incremental increase in land value, or by 'capturing' part of the benefit to the transport user. Value capture mechanisms can provide an alternative supplementary source of funding for transport infrastructure and services where:

- a user charge is either impractical or inappropriate given the costs involved in implementation
- existing funding mechanisms provide insufficient funds for ad-hoc investment projects
- existing funding mechanisms provide insufficient funds for the economic maintenance of roads.

The value capture mechanisms that are currently available in New Zealand are detailed in the next section.

C3.1 Which value capture mechanisms have been used internationally?

A number of value capture mechanisms have been used internationally. These include:

- land value tax – defined as capturing the general increase in the price of land due to improved accessibility from transport
- tax increment financing (TIF) – defined as levying taxes on the future increment in property value within a development project to finance development-related costs, including infrastructure improvements
- special assessments – defined as imposing special charges on property that is close to a new facility
- transport utility fees – which treat transport networks as a utility – ie they apply a user charge
- development impact fees – defined as one-time charges imposed on new developments
- negotiated exactions – defined as functionally similar to development impact fees, except they are not determined through a formal or formulaic process and are not typically applied to off-site infrastructure provisions
- joint development – defined as the development of a transport facility simultaneously with the development of adjacent private land development, in which a private sector partner either provides or makes a financial contribution to offset its costs
- air rights – defined as where development rights are established above/below a transport facility in exchange for a financial payment.

The current legislative framework in New Zealand is very enabling in terms of the mechanisms that can be applied to levy 'value' from beneficiaries. Consequently, many of the commonly cited international mechanisms can likely be implemented as a variation to existing charging mechanisms (subject to legal advice).

C3.2 Which value capture mechanisms are available in New Zealand?

In New Zealand there are a number of mechanisms available to local authorities for charging landowners and/or developers for transport infrastructure costs, namely:

- development contributions (under the Local Government Act 2002), which are focused on recovering growth-related costs from developers who benefit from infrastructure through higher sale prices
- financial contributions (under the Resource Management Act 1991), which are focused on recovering environmental costs (ie those associated with mitigating, avoiding or remedying negative environmental consequences) from developers who benefit from infrastructure through higher sale prices
- targeted rates (under the Local Government (Rating) Act 2002), which are focused on recovering funds from a 'targeted' group of individuals that may directly benefit from, or be impacted by, projects.

There are summarised in table C2.1.

Table C2.1 Value capture mechanisms available in New Zealand

Beneficiary being targeted	Legislation	Funding mechanism	Nature of the payment mechanism	
			One-off	Ongoing
Individual landowners/ users	Local Government (Rating) Act 2002	Targeted rates	✗	✓
	n/a	Other negotiated mechanisms	✗	✓
Developers	Local Government Act 2002	Development contributions	✓	✗
	Resource Management Act 1991	Financial contributions	✓	✗
	n/a	Other negotiated mechanisms	✓	✗

Table C2.2 sets out the different funding instruments for transport infrastructure, aligned with the beneficiaries, and gives examples of those mechanisms both in New Zealand and overseas.

Table C2.2 Funding instruments for transport infrastructure

Funding mechanism	Beneficiaries		Measurement of benefit	Examples from NZ	Examples from overseas	Nature of the payment mechanism[a]	
						One-off	Ongoing
General revenue	General public		General tax base growth	General rates	Transport sales tax	✗	✓
Value capture	Non-user beneficiaries	Landowners	Land value growth	Targeted rates	Betterment taxes	✗	✓
			Property tax growth	n/a	Tax increment financing	✗	✓
		Developers	Development opportunities	Development contributions; financial contributions	Development impact fees; negotiated exactions; joint development air rights	✓	✗
User fees	Users of transportation facilities	Vehicle operators	Petrol consumption	Fuel excise duty	Petrol taxes	✓	✓
			Vehicle units/types	Registration and licensing fees	Vehicle sales tax; licence tab fee; wheelage charges[b]	✓	✓
			General access rights	Tolling	Tolling	✗	✓
			Demand-controlled access rights	n/a	Congestion pricing	✗	✓
		Passengers	Ridership	Fares	Fares	✗	✓

a) While all of these mechanisms can be applied on either a one-off or ongoing basis, this table highlights the manner in which they are primarily applied.

b) A licence tab fee is the term used in the US for an annual charge to maintain registration of a vehicle. It is equivalent to an annual registration fee. Wheelage charges are additional charges applied by some counties in the US on all vehicles registered within the county.

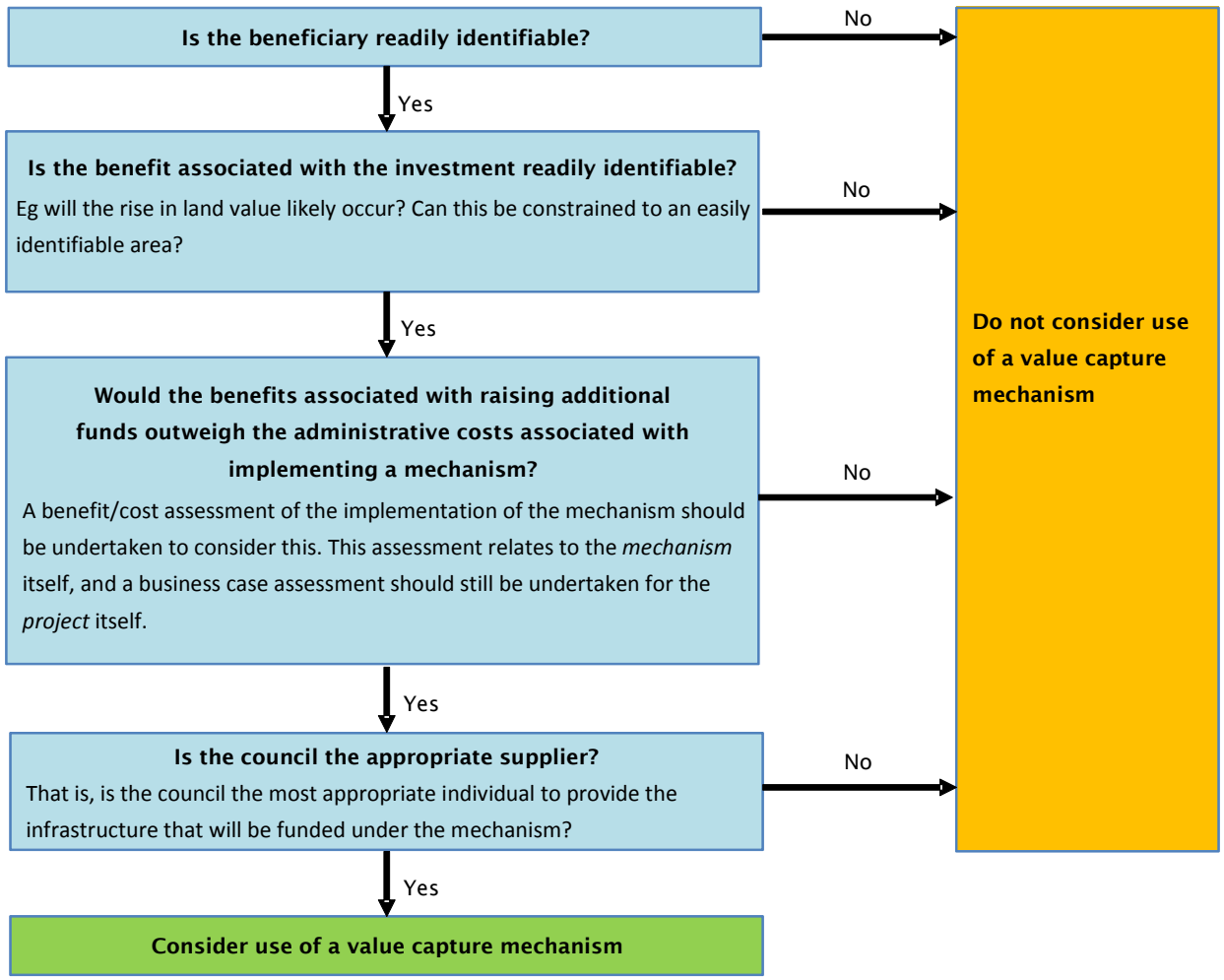
C4 How to choose a value capture mechanism

Value capture mechanisms are a means of recovering the cost of transport infrastructure and so are not a new source of *additional* funds – instead, they reallocate the recovery of costs from one group to another. They are therefore simply a way for local authorities to spread the burden of funding transport infrastructure across a number of groups. Value capture mechanisms are typically used to fund only a *portion* of the costs of a project, and should not be used to fund more than the estimated benefits to landowners/developers from a given transport infrastructure project. This is because non-user beneficiaries of transport do not typically receive benefits that are enough to pay for the entire infrastructure.

C4.1 Should a value capture mechanism be considered?

The following checklist should be followed when determining whether use of a value capture mechanism should be considered. The following four questions should all be answered affirmatively before consideration is given to a value capture mechanism.

Figure C3.1 Considering a value capture mechanism



The first two questions may be difficult to answer in practice. However, there are a number of best-practice examples of the application of these mechanisms in New Zealand. These best-practice examples are described in this Local Authority Guide in order to provide information about practices in other councils, which may be of assistance to councils contemplating using these mechanisms.

C4.2 Which value capture mechanism can apply, given the legislative circumstances?

Once it has been determined that a value capture mechanism should be considered, the next decision is which value capture mechanism can be used, given the current legislative constraints in New Zealand. As discussed above, there are three main types of value capture mechanisms that local authorities in New Zealand can apply:

- those targeted at developers through:
  - development contributions
  - financial contributions
- those targeted at households through:
  - targeted rates.

These are detailed in table C3.1, which shows that there are some constraints on the mechanisms and circumstances to which these can be applied.

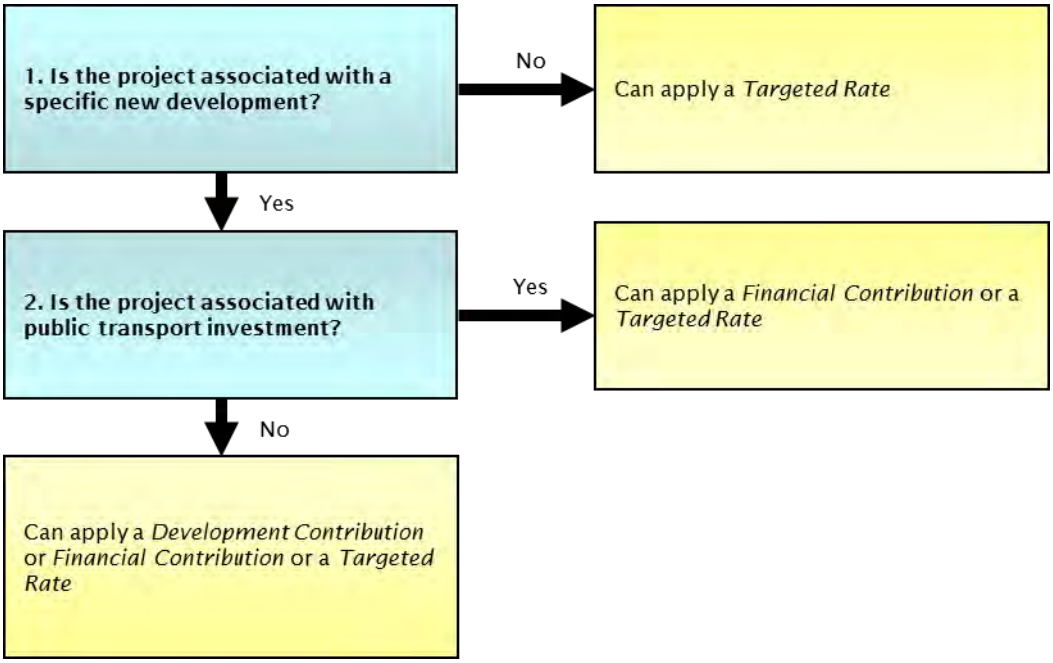
Table C11.1 Legislative circumstances where developers and land owners can be charged

	Development contributions	Financial contributions	Targeted rates	Other negotiated charges
Road network				
Growth associated with development	✓	✓	✓	✓
General ongoing growth	✓	✓	✓	✓
Operating & maintenance	×	×	✓	✓
Public transport				
Growth associated with development	×[a]	✓	✓	✓
General ongoing growth	×	×	✓	✓
Operating & maintenance	×	×	✓	✓

a) If public transport was owned by territorial authorities, then development contributions could be levied. However, since most public transport is owned by regional authorities, this cannot occur.

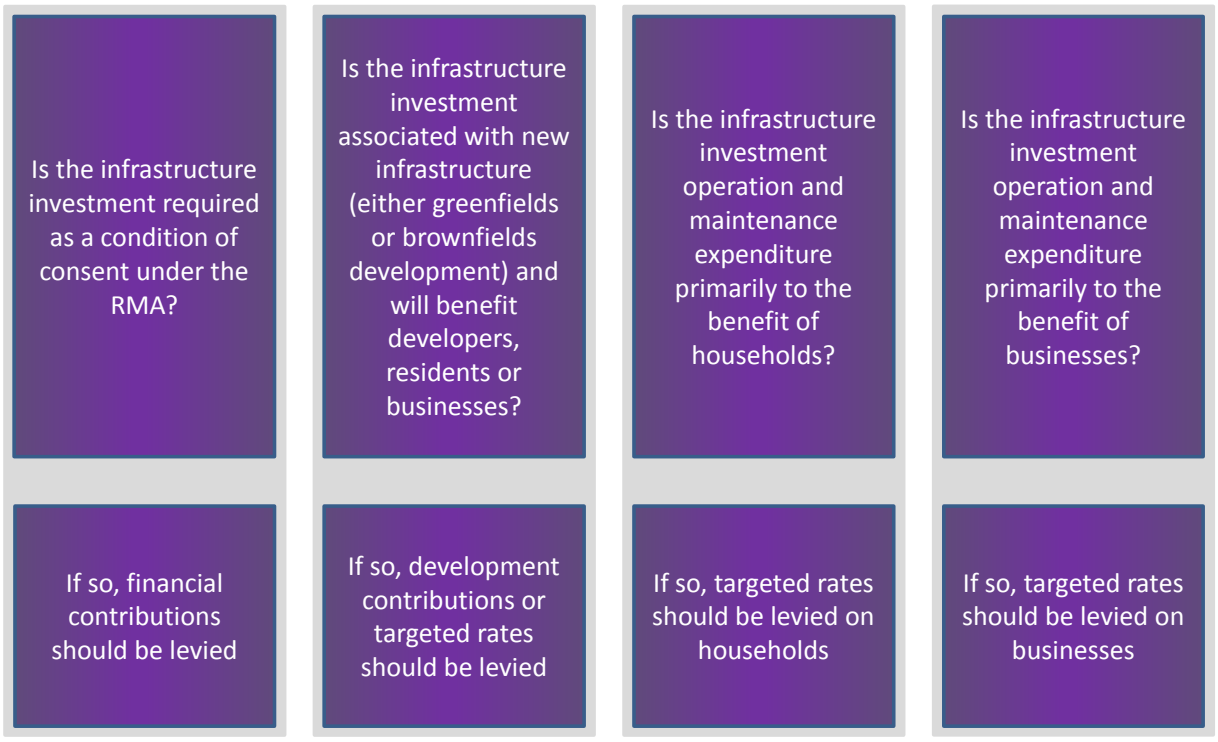
Table C3.1 can be synthesised into the following steps (figure C3.2) that will assist in determining which mechanism can apply, given the current legislative constraints.

Figure C3.2 Legislative constraints



The questions in figure C3.3 will also help to determine what type of mechanism should be applied.

Figure C3.3 Questions to be considered in selecting appropriate infrastructure funding mechanism



Each of the available value capture mechanisms have their own strengths and weaknesses and these determine when the mechanisms should be used.

The choice of which mechanism is most appropriate for a particular transport infrastructure project will therefore depend upon the circumstances in each case. Choice between the mechanisms, or whether a value capture mechanism should be used at all, will depend on an assessment of the benefits from charging beneficiaries compared with the implementation and administration costs.

In addition, each mechanism can be tailored to the particular circumstances of a project. For example, the methodology to estimate the financial contribution paid by businesses for one project can be different from the methodology used to charge businesses for another project. These differences will reflect the specific circumstances surrounding a project.

The following chapters set out further information on the application of each of the mechanisms detailed above. Each chapter summarises what the mechanism is and how it can be used, provides an example of its use, and then concludes by assessing it against the criteria detailed in the section below.

C4.3 Assessment criteria for value capture mechanisms

Each of the mechanisms can be assessed against the following criteria:

- *Economic efficiency*: This has three dimensions:
  - allocative efficiency (which requires resources to be allocated to their most productive or highly valued uses in the economy)
  - productive efficiency (which requires the production of goods and services at the lowest possible cost)
  - dynamic efficiency (which requires the efficient allocation and production of goods and services over time).
- *Incentives*: The incentives faced by the beneficiary under the form of value capture mechanism used, including the extent to which efficient behaviour is encouraged (ie the promotion of economic efficiency).
- *Equity*: The extent to which the individual being charged is also the beneficiary from the particular project.
- *Transparency*: How easy it is for the affected individuals to understand the mechanism.

In the remainder of this Guide, each of the current mechanisms available in New Zealand is assessed against these mechanisms.

C5 Development contributions

Summary of key points:

Development contributions can only be used by local authorities where the link between the need for infrastructure and the development can be demonstrated.

Development contributions can be used to recover funds for both greenfields and brownfields developments, although the link between development for brownfields and the infrastructure can be harder to demonstrate.[48]

Local Government New Zealand has published a comprehensive best-practice guide on the development and application of development contributions, which should be used by local authorities.

The Productivity Commission has also outlined a set of threshold tests (summarised below) that local authorities should use to determine whether the introduction of development contributions will have negative affordability consequences. These have been developed to respond to concerns about housing affordability following the introduction of development contributions.

C5.1 What are development contributions?

Development contributions are defined under the Local Government Act 2002 (LGA). The purpose of development contributions is to fund infrastructure investments that are required as a direct consequence of development.

Development contributions are levied on developers, typically with one-off payments payable when consent is authorised. Development contributions are largely considered by the public as a legitimate way of funding infrastructure, and so are frequently used by local authorities.

As set out in legislation there are a number of restrictions on their use, specifically:

- They must only be applied where the development creates a requirement for new infrastructure (or increased capacity of infrastructure) (LGA, s.199(1)).
- They must only be applied to capital expenditure (LGA, s.204).
- They can only be used by territorial authorities (LGA, s.198(1)).
- A development contributions policy must be adopted by the territorial authority and developed in accordance with a number of guiding principles.

48 Further research should be undertaken on this question. It may be the case that proving this link is too hard in many circumstances.

C5.1.1 Greenfields versus brownfields development contributions

Development contributions are commonly used by local authorities to fund new greenfields developments. A greenfields development is one in an area where there is no existing development. In these cases the link between the need for the infrastructure and the development is readily identifiable.

For example, a new subdivision may be built in a currently rural area. This new development will require the construction of a new road to connect it to an existing city. The link between the development and the need for infrastructure is clear, since without the construction of the road, residents would not be able to travel to and from their homes. Development contributions can be easily used to fund the infrastructure associated with this greenfields development. Existing residents may gain an incidental benefit that they did not need or ask for; however, this does not require the existing residents to make a contribution to the costs of the new infrastructure.

In contrast, development contributions are not commonly used by local authorities to fund infrastructure associated with a brownfields development. Indeed, this is likely to be challenging since most transport development is at least partially integrated into some form of brownfields network. A brownfields development occurs in and around existing assets. For example, a rural community may be developed to a higher intensity, and so will require an upgrade to existing roads in order to accommodate this increased traffic. Development contributions could also be used to fund the infrastructure associated with such a development.[49]

While the link between the development and the need for infrastructure is harder to prove for brownfields developments, some local authorities (especially those experiencing high growth) have successfully applied development contributions to them. This is discussed in further detail in the example of Tauranga City Council, which is outlined in a later section.

C5.2 Design and structure of development contributions

When local authorities are considering the design and structure of the development contribution, the incentives created for developers should be considered. Specifically, this should include:

- whether the imposition of the charge will encourage or discourage development, and in what areas this will occur – for example, the charge may encourage development in more rural areas of the city, but this may have negative environmental effects in that area
- whether in an economic downturn it may be more appropriate to adopt a city-wide levy in order to encourage *at least some* development – for example, while this may encourage some development, it could also impose costs on many who are not directly causing those costs[50]
- the level of costs that will be recovered from developers, as opposed to creating cross-subsidies with funds recovered from general rates – for example, it may be more efficient to recover costs from developers (even if this does discourage some development), rather than create cross-subsidies
- the timing incentives – that is, how to minimise the ability of a developer to delay payment of the levy, and further, what the council could do to encourage developers to pay up-front

49 Further research is needed on how this could occur.

50 Development contributions need to be able to justify the fee catchment, based on delivery of benefit. This may be challenging to implement if the council is seeking to encourage growth.

- how development contributions should be updated over time to reflect increased information about costs.

The impact of the development contribution on housing affordability should also be considered, along with the associated concerns about fairness. For example, in high-growth areas that are already under housing price pressures, it is likely that development contributions could have a significant negative effect.[51]

Lastly, development contributions can only be levied once the property development process has commenced. This may result in a period of time between when the individual pays for the infrastructure and when it is constructed. This difference must be funded directly by councils – and many councils charge at least the expected interest-holding costs on their investment.[52]

Local Government New Zealand has published a best-practice guide for developing and applying development contributions, which considers these requirements in greater detail (Local Government New Zealand 2003). This includes the following eight-step process for calculating development contributions:

1 *Divide the city or district into logical 'catchments' for each of the services, on the basis of common service delivery characteristics.*

2 *Quantify estimated growth (population, housing or business) within the city or district and within each catchment if possible.*

3 *Translate that information into anticipated demand for services by catchment, with reference to levels of service.*

4 *Identify the works required to meet that increased demand (in addition to works that may otherwise be required) within each catchment.*

5 *Programme the works and estimate their individual costs for each catchment.*

6 *Allocate the cost of each work between the 'shared drivers' with reference to levels of service (growth, catch-up, service level improvement, environmental improvement, renewal).*

7 *Aggregate the 'growth' costs for each catchment of each service as the 'draft contributions'.*

8 *Process, adopt and publish a schedule of contributions through the funding and financial policies/LTCCP processes* (ibid, p22).

This best-practice guide should be followed by local authorities when developing a development contributions policy.[53]

51 This issue is considered in detail in *Assessment of development feasibility for the Wairakei urban growth area* (Essentia Consulting Group and Tauranga City Council 2010).

52 See www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/committees/strategyfinancecommittee/meetings/strategyandfinancecomag20120215.pdf

53 It is widely recognised that this guide is in need of review, as mentioned in the recent Productivity Commission review on housing affordability.

Further, the recent Productivity Commission review of housing affordability (New Zealand Productivity Commission 2012, p143) identified the following questions that councils could consider to determine whether or not they should use development contributions:

- *Is the council the appropriate supplier?*
- *Is the infrastructure investment required as condition of consent under the RMA?*
- *Is the investment of a sufficient scale to justify separate funding, and required predominantly to meet the needs of new development?*
- *Are the benefits of the infrastructure asset generated within a narrowly defined area or across a broader community?*
- *Are there alternative methods of infrastructure funding that may be preferable?*

C5.3 Case study: use of development contributions by Tauranga City Council

We consider that the development contributions policy used by Tauranga City Council[54] is an innovative application of the mechanism and should be considered best practice by other councils.

Tauranga City Council has a development contributions policy that charges two fees to developers, namely:

- a local development contribution fee – used to fund local infrastructure in particular parts of the city, with this generally payable on a subdivision consent to create an additional allotment(s)
- a city-wide development contribution fee – used to fund city-wide infrastructure that all development in the city benefits from, with this generally payable on a building consent or service connection for a new residential dwelling or additional business floor area.

These fees are used to recover the cost of water, wastewater, stormwater, transport, community infrastructure and reserves in the city. We understand that Tauranga City Council is the one of only a few local authorities that charge development contributions in two components.

The local development contribution fees vary across the city, depending upon the cost of services in that particular area. These fees are lowest in infill areas, where only small amounts of infrastructure are required to support further development, and higher in older greenfield urban growth areas. For transport infrastructure, the local development contribution fees vary widely, from $0 per lot in Tauranga and Mt Maunganui infill through to $194,051.15 per hectare in Wairakei (stormwater area A).

The city-wide development contributions fee for transport varies according to the size of the dwelling, from $195.81 (one-bedroom dwelling) to $391.62 (three-bedroom+ dwelling). The fee is the same across the city.

The development contributions policy is reviewed annually to reflect changes in costs, and is the Council's third-largest source of revenue after rates and user charges.

54 The policies are comprehensively set out by Tauranga City Council at www.tauranga.govt.nz/council-a-z/development-contributions.aspx.

C5.4 Assessment against criteria

C5.4.1 Economic efficiency

Development contributions are typically passed through to the ultimate land/housing buyers of the development. This creates price signals to these individuals, to promote more efficient investment decisions.

Development contributions can only be levied upon developers once the development process begins. Therefore, to the extent there is any 'gap' between when infrastructure is constructed and when the charge is levied, the council may be required to borrow to fund this. This may not be efficient since it exposes councils to revenue risk for which it is not typically compensated.

C5.4.2 Incentives

There are concerns that development contributions can place adverse incentives on developers and discourage them from building new infrastructure. However, development contributions (if based on the true costs of supply and calculated correctly) will promote efficient investment. Therefore, these concerns should dissipate over time as councils learn more about the costs associated with development.

C5.4.3 Equity

Development contributions are charged to those developers who create a need for new infrastructure. This is to ensure that existing residents and businesses do not have to pay for this additional infrastructure capacity. Therefore, this is equitable.

C5.4.4 Transparency

There are concerns that development contributions are not readily understood by the wider community. However, to provide the right incentives, development contributions need only to be understood and transparent to developers. We consider this mechanism is therefore transparent.

C6 Financial contributions

Summary of key points:

Financial contributions can be charged as a condition of resource consent that is given under the Resource Management Act 1991. In addition, financial contributions can only be used to raise funds for mitigation of the environmental costs associated with a specific development.

Local authorities should consider the use of financial contributions in circumstances where the opportunity to use development contributions is constrained – eg to fund transport infrastructure maintenance costs.

C6.1 What are financial contributions?

Financial contributions are defined under the Resource Management Act 1991 (RMA) and so can only be required as a condition of resource consent given under the Act. In particular, they are only used to raise money to fund mitigation of the environmental costs associated with a particular development.

Financial contributions are levied on developers and usually consist of a one-off payment levied when consent is authorised. While the payment is levied on consent, the costs recovered can include prior costs incurred. Using financial contributions to fund transport infrastructure costs is largely considered legitimate by the community.

The following restrictions are placed on the circumstances in which financial contributions can be used:

- A policy on financial contributions must be included in a council's long-term plan, with this stating the proportion of expenditure and the type of activities that can be funded by financial contributions.
- They can only be applied in accordance with the purposes specified in the proposed planning provisions for the development, and if the level of contribution is calculated in accordance with the plan.

C6.2 Use of financial contributions

Financial contributions are not commonly used by local authorities. This is because they are subject to appeal in the Environment Court and developers have frequently appealed against the imposition of these charges. It is likely that in many cases the administrative costs associated with the implementation of financial contributions will outweigh the benefits that can be achieved through using them as a funding source.

The use of financial contributions should be investigated by local authorities where development contributions are not able to be charged. For example, local authorities are unable to apply development contributions to recover funds associated with ongoing transport infrastructure maintenance costs. Financial contributions can potentially be used to fund these maintenance costs. However, it is important to establish a link between the costs recovered and the mitigation of environmental costs.

If financial contributions are used, local authorities should consider:

- whether the imposition of the charge will encourage or discourage development, and in what areas this will occur
- the level of costs that will be recovered from developers, as opposed to creating cross-subsidies with funds recovered from general rates
- the timing incentives – ie to minimise the ability of a developer to delay payment of the levy.

C6.3 Assessment against criteria

C6.3.1 Economic efficiency

Financial contributions are typically passed through to buyers of the development. This creates price signals to these individuals, promoting more efficient investment decisions.

Financial contributions can only be levied upon developers once the development process begins. Therefore, to the extent there is any 'gap' between when infrastructure is constructed and when the charge is levied, the council may be required to borrow to fund this. This may not be efficient.

C6.3.2 Incentives

There are concerns that financial contributions can place adverse incentives on developers and discourage them from building new infrastructure. However, financial contributions (if based on the true costs of supply and calculated correctly) are efficient. Therefore, these concerns should dissipate over time as councils learn more about the costs associated with development.

C6.3.3 Equity

Financial contributions are charged to those developers who create a need for new infrastructure. This is to ensure that existing residents and businesses do not have to pay for this additional infrastructure capacity.

C6.3.4 Transparency

There are concerns that financial contributions are not readily understood by the wider community. However, in order to provide the right incentives, financial contributions need only to be understood and transparent to developers. We consider that this mechanism is therefore transparent. Indeed, having the developer involved in the calculation of the financial contribution ensures that the developer will understand the charge.

Finally, while financial contributions are, in principle, similar to development contributions when assessed against these criteria, the legislative need to link the costs recovered to mitigating environmental outcomes means that they are difficult to use in practice.

C7 Targeted rates

Summary of key points:

Targeted rates are used to fund activities where the council considers the costs should be met by particular groups of ratepayers, or that there is some other benefit in funding from outside the general rate.

Targeted rates should be used where the projects' costs are above the level of investment that a local authority is willing to fund directly; or where an identified community wants to build projects faster than the local authority is willing to consider.

Targeted rates can also be more successful if they are used to fund infrastructure broadly. This allows increased flexibility of funds, since targeted rates can only be used for their defined activities.

C7.1 What are targeted rates?

Targeted rates are set under section 16 or section 19 of the Local Government (Rating) Act 2002. A targeted rate is used to fund those activities where a council considers the costs should be met by particular groups of ratepayers, or that there is some other benefit in funding outside of the general rate.

Targeted rates are applied to either land owners or land users (ie residents or businesses as either lessees or leasers) since they are beneficiaries of the infrastructure or service. Moreover, they are typically applied as an ongoing charge. However, we understand that there is nothing to prohibit a local authority from using targeted rates as a mechanism for applying a one-off charge. Indeed, some authorities applied a targeted rate for only one or two years in the lead-up to the Rugby World Cup, to fund associated facilities.

Targeted (and general) rates can also be subject to 'differential' rates, with differences relating to specified criteria such as land use, where the land is situated, and annual capital/land value. For example, a targeted rate can be applied to a particular suburb in Auckland, and businesses can be deemed to benefit more from a particular investment and so pay 120% of the targeted rate, while residents pay, say, 100% of the rate. If the rate was 1 cent per dollar of rateable land, then businesses would pay 1.2 cents per dollar, whereas residents would still pay 1 cent per dollar.

The following limitations apply to the use of targeted rates:

- They must be set for defined activities.
- They can only be calculated using factors identified within the funding impact statement.
- They must be set in accordance with the council's long-term plan and funding impact statement.

Targeted rates can create incentives for individuals within an area. However, targeted rates are typically set at such a low level by local authorities that these incentives are not strong. Importantly, the level of targeted rates can only be set at a point where they will recover the cost of the service.[55]

Further, targeted rates are typically seen as being publicly unacceptable since residents do not like paying for specific projects where other residents may not have to pay. However, public acceptance of user- or beneficiary-pays approaches has increased in recent years due to increased public education on these issues. The administrative costs associated with the imposition of targeted rates are high in terms of calculating the amount to be attributed to each beneficiary. This may involve using a cost allocation model (as in the example of Southland District Council described in the next section). However, once this has been determined, the cost of raising targeted rates over time is relatively low.

Targeted rates should be used in those circumstances where:

- the project's costs are above the level of investment that the local authority is willing to fund directly using money from the funding assistance rate (FAR), or general rates
- an individual (or defined community) wants a project to be built faster than the local authority is willing to consider.

Indeed, these circumstances reflect historical cases where targeted rates have been used by local authorities. In addition to these criteria being met, targeted rates are more successful when used either:

- very broadly – both across infrastructure projects (eg transport, water and wastewater infrastructure) and across communities (ie in order to allow for flexibility of funds across different areas)
- very specifically – used for a specific one-off infrastructure project where the benefits can be clearly identified and attributed to the beneficiary.

In the US, public consultation has also been shown to be important when implementing new TIF districts (TIF can be considered similar to targeted rates). A number of the best-practice guides have set out ways in which public acceptance can be better achieved. These include:

- determining common ground between the project goal and political goals – eg if the project goal is to raise funds to finance a new rail line, the political goal should be aligned with this
- establishing and using appropriate channels of communication – eg establishment of an interested parties group
- educating the community – eg through raising awareness of a particular mechanism and what the mechanism can achieve
- formulating a communications plan, with this clearly communicating the benefits of a particular funding mechanism to the community – eg expansion of the tax base, increase in revenue, creation of new jobs, diversification of the economy
- ongoing monitoring and continuing disclosure of the mechanism.

55 See www.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/committees/strategyfinancecommittee/meetings/strategyandfinancecomag20120215.pdf

C7.2 Case study: targeted rates charged by Southland District Council

Southland District Council provides a good example of best practice for the use of targeted rates by councils.

Roads in Southland are funded from a mixture of revenue from rates and central government subsidies. The Southland District Council believes that a portion of the cost of roads should be paid by *all* ratepayers, to reflect users' access to the network, with the remainder paid by specific road users.

A targeted roading rate is levied on each of the following sectors: commercial, dairy, farming, forestry, industrial, lifestyle, mining, residential and other.

The targeted rate is calculated as follows, using a roading-rating model:

- General expenditure (eg road signage, road markings, general operations, drainage control, lighting and minor maintenance – approximately 65% of total roading costs) is allocated across the above sectors based on capital value (ie value of the land plus improvements).
- Structural and pavement costs (generated by heavy vehicles – approximately 35% of total roading costs) are allocated between rural sectors by tonnage, and commercial and industrial sectors by the number of properties.
- A total percentage share of costs (ie general expenditure + structural and pavement costs) is established for each sector.
- A targeted rate is set for each sector, based on their share of costs, and levied on the capital value of each rateable unit.

The money recovered from the application of this targeted rate is used to fund both capital and operating expenditure.

C7.3 Assessment against economic criteria

C7.3.1 Economic efficiency

Targeted rates can be 'targeted' towards a particular activity or service that is provided by councils. This provides price signals to these individuals in relation to the activity or service, and so will promote efficient use and investment in infrastructure. This allows the costs and benefits of goods and services provided by councils to be better reflected in the charges that residents pay.

C7.3.2 Incentives

Targeted rates provide price signals to individuals. This provides incentives to residents to use the goods and services to their optimal level.

C7.3.3 Equity

Rates are targeted against those properties that benefit the most from targeted investment, and so can be considered equitable.

C7.3.4 Transparency

Councils include a description of the targeted rates policy in their long-term plans. This should therefore provide transparency of this mechanism for these households.

Moreover, we understand that typically, those industry/homeowner/business associations that may be affected are involved in the development of the targeted rate. This also increases the transparency of the mechanism.

C8 Mechanisms not covered in legislation

Summary of key points:

Mechanisms (development contributions, financial contributions and targeted rates) allowing landowners and developers to be charged the cost of transport infrastructure should be used more by local authorities.

In the absence of these mechanisms being able to be applied, due to legislative and regulatory constraints, mechanisms negotiated outside legislation should be considered. In many circumstances, these will be beneficial to both parties (ie local authorities and the landowners/developers) and so will be effective.

Landowners and developers can be charged to provide funding for transport infrastructure. Indeed, while these mechanisms should only be used where the benefits outweigh the implementation costs, the following generalisations can be made:

- Development contributions can be used to fund infrastructure associated with both brownfields and greenfields developments.
- Financial contributions can be made where development contributions may not be able to be applied.
- Targeted rates should be used to fund projects that have costs above the level the local authority is willing or able to fund.

C8.1 What are mechanisms outside legislation?

If the mechanisms discussed above cannot be used, given the particular circumstances of a planning transport infrastructure project, then the local authority should consider negotiating a charge that sits outside legislation.

C8.1.1 Case study: a roads maintenance charge levied by Marlborough Roads

One notable example of this is the Marlborough Roads maintenance charge, where in lieu of a differential forestry rate or annual charge, Marlborough Roads, on behalf of Marlborough District Council, annually negotiates with two forestry companies for financial contributions towards the maintenance of Northbank Road. This rate is calculated based on the tonnages carried and their marginal effects on the road. Marlborough Roads assesses the marginal costs associated with each year's programme for maintenance and renewals. The assessed costs typically work out at 50 cents per tonne, which covers around one-third of the pavement maintenance budget for this road. This charge has applied for at least 10 years.

Negotiated mechanisms are flexible, and so can be either charged to developers or individuals (land users/owners), and applied on either an ongoing or one-off basis. The structure of the mechanism (ie ongoing or one-off payments) will depend upon the circumstances applying at the time.

This flexibility is one of their main advantages, and they also provide certainty to those individuals that they apply to. However, there are substantial administrative costs (ie time and effort required) associated with these mechanisms, since they have to be negotiated 'from scratch' each time.

There are few public acceptability concerns, since these are only negotiated where it is within both parties' best interests to come to an arrangement.

C8.2 How is a mechanism outside legislation developed?

If the council is to develop a mechanism outside legislation, then the following four questions should be considered:

- Is an individual or developer non-user beneficiary to be targeted?
- Is the charge a one-off or ongoing payment?
- What incentives are created?
- How easy is the mechanism to implement?

C8.2.1 What type of non-user beneficiary is to be targeted?

There are two potential targets: individuals (ie land owners or land users) or developers.

The following situations can be considered:

- If the project is associated with a specific new development, then it is possible to apply a charge to either the developer at the time of development (given that it can be shown that the developer is driving the need for investment) or the subsequent individual land owner(s)/user(s) as beneficiaries of the project.
- If the project involves ongoing contributions to the operation and maintenance of transport infrastructure and services, then the mechanism would most likely be applied to the individual land owner(s)/user(s) as the ongoing beneficiaries of the project.
- If there is no clear beneficiary, then the decision on which beneficiary should be targeted should be based on the extent of public acceptability – ie which beneficiary would be more readily seen as the appropriate individual to pay the charge.

Consideration needs to be given to the geographic area over which transport investment costs should be recovered. Mechanisms can apply to individuals at a jurisdictional level (eg general rates), or to a smaller area (eg targeted rates). Indeed, mechanisms can be applied to a subset of a smaller area. The type of infrastructure being constructed also influences the geographic area used for the mechanism. For example, general transport infrastructure might be funded by a mechanism applied to a wide geographic area, whereas a specific road being built might be funded by a smaller area, close to the infrastructure. This equates the geographic area of the mechanism with the benefits being received by the individuals – general infrastructure funding benefits a larger number of individuals and so the geographic area of the mechanism should be larger.

Geographically, the mechanisms used for developers are typically limited to the area around the development, or the area adjacent to the transport infrastructure and services.

C8.2.2 Is a one-off or ongoing charge involved?

Value capture mechanisms can recover payments on either a one-off or an ongoing basis. The choice between these two approaches depends on the capacity, appropriateness and risks of the party undertaking the investment borrowing on the basis of an expected stream of revenue from beneficiaries, as compared with needing to return the costs of the investment as soon as possible following its construction. The choice is also influenced by a desire to align the benefits received by the targeted beneficiary with the payment mechanism.

The majority of mechanisms that are applied to individuals are more suited to ongoing payments and so can be used for ongoing transport operating and maintenance costs (targeted rates). This is because these mechanisms can feasibly be operated for several years and this ensures an ongoing amount is recovered from individuals each year.

Importantly, ongoing payments can ease affordability concerns for households. For example, a 2% property tax per annum, recovered over 15 years, is approximately equivalent to a one-off tax of 20% (in net present-value terms). This means that the same funds can be collected from individuals, while reducing the near-term impact on households. Those funds that are recovered from developers are recovered on a lump sum basis, and so are more suitable for funding new investments. This again aligns with the benefits received by developers – developers receive benefits upon the sale of developed properties. Indeed, developers in New Zealand have expressed a preference for payments to be made as late as possible in the development process, or to be connected with when demand starts (Auckland Council 2011). This also minimises the risks for the government, since developers must pay 'up front'.

C8.2.3 What incentives are created?

An important consideration in the design of a value capture mechanism is to consider the incentives created, both for the investment decision maker and the party on whom the value capture mechanism will be levied.

The incentives created for the investment decision maker are linked to the risks involved in the recovery of the costs of the investment. For example, a value capture mechanism can be designed so that the recovery of funds is linked to the *actual increase* in land values as they are objectively determined by an independent valuer. Under this approach, the investment decision maker needs to ensure that the investment will deliver the intended land value outcomes in order to ensure that the costs of the investment are recovered.

Funding transport through property rates or betterment taxes typically has this characteristic, which can create problems for transport investment funding during times of downturns in the economy – eg if property values do not rise as much as expected, then the government will be left to fund the investment. In order to mitigate these concerns, some jurisdictions do not set an end date for a scheme, and simply state that it will finish when the debt has been recovered (Johnson 2002).

In contrast, the mechanism might be designed so as to guarantee the return of funds invested in the project by simply being a charge based on the *level* of land value (say, 2–3 cents per $1000 of land value). This approach does not impose financial disciplines on the investment decision maker to ensure that the project is worthwhile, as expressed by the land value benefits outweighing costs.

The design of the value capture mechanism also creates incentives for the party responsible for paying under the mechanism. For example, a flat charge on land that is not linked to land value or land value changes creates incentives for developers to develop land in order to realise the value and so pay the transport-related charges.

In addition, charging developers for the transport-related costs caused by a new development creates signals about land use location choice. Charging developers for these transport costs therefore promotes efficient land use, because a developer will seek to maximise the return from a development by making land use location decisions based on a consideration of all of the costs (including any transport costs) related to a development.

C8.2.4 How easy is the mechanism to implement?

The ease of implementation of a value capture mechanism is critically dependent on the administrative and legislative environment within which the mechanism is being applied. In terms of administrative arrangements, any value capture mechanism requires significant start-up administrative resources to set up the charging scheme. This might involve examining the likely impact on property values from an investment, designing the mechanism and undertaking public consultation. All of these factors need to be considered as part of an examination of the ease of implementation of a particular mechanism in specific circumstances.

C9 Checklist

This checklist should be followed to determine which charging mechanism (ie development contribution, financial contribution or targeted rate) should be used for financing a transport infrastructure project.[56]

The following four questions should all be answered affirmatively before considering the use of a value capture mechanism:

- Is the beneficiary readily identifiable?
- Is the benefit associated with the investment readily identifiable? For example, is the rise in land value likely to occur, and can this be constrained to an easily identifiable area? If so, one of the mechanisms should be applied.
- Would the benefits associated with raising additional funds outweigh the administrative costs associated with implementing a value capture mechanism? A benefit/cost assessment of the implementation of the mechanism should be undertaken to consider this. The assessment should relate to the *mechanism* only – a separate business case assessment should still be undertaken for the *project* itself.
- Is the council the appropriate supplier? That is, is the council the most appropriate organisation to provide the infrastructure that will be funded under the mechanism?

The following questions can also be answered to determine which type of mechanism should be applied:

1 Is the infrastructure investment required as a condition of consent under the RMA?

If so, *financial contributions* should be levied.

2 Is the infrastructure investment associated with new infrastructure (either greenfields or brownfields development) and will it benefit developers, residents or businesses?

If so, *development contributions* or *targeted rates* should be levied.

3 Is the infrastructure investment operation and maintenance expenditure primarily to the benefit of households?

If so, *targeted rates* should be levied on households.

4 Is the infrastructure investment operation and maintenance expenditure primarily to the benefit of businesses?

If so, *targeted rates* should be levied on businesses.

The challenge of readily identifying the beneficiary and associated benefits of a transport investment highlights the fact that value capture mechanisms are most likely to be appropriate for larger projects where a clear association between the project and beneficiaries can be developed. Indeed, this is the experience internationally with the use of these mechanisms. That said, there is merit in proactively identifying linkages between investments and community benefits where it is practically feasible to do so, to allow value capture mechanisms to be more readily used by councils.

56 This has been heavily informed by the guidelines set out in the 2012 New Zealand Productivity Commission *Housing affordability inquiry*.

C10 Local Authority Guide references

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Glossary

Brownfields development	Development that occurs in and around existing assets.
Development contribution	Used (under the Local Government Act 2002) to fund infrastructure investments required as a direct consequence of development, including community infrastructure, reserves and most network infrastructure.
Financial contribution	Planning-based instruments under the Resource Management Act 1991, typically involving monetary contributions, but can also involve contributions of land, or a combination of the two.
Greenfields development	New development in an area where there is no development already existing.
Non-excludable	People cannot be excluded from using the service.
Non-rivalrous	The use of the service by one customer does not affect the use of another customer.
Public good	Goods or services that are both non-rivalrous and non-excludable.
Targeted rate	Used (under the Local Government (Rating) Act 2002) to fund those activities where the council considers the costs should be met by particular groups of ratepayers, or that there is some benefit in funding from a source outside of the general rate.
Transport infrastructure	Road infrastructure and public/community transport infrastructure.
User charge	A fee is charged to the user of the service to recover all or part of the costs incurred by government from providing the service.