Alternative infrastructure funding and financing

Research Paper (commissioned by the Queensland Government)

21 March 2016

Department Of Infrastructure, Local Government and Planning

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Alternative infrastructure funding and financing

Context and background

All levels of government in Australia face two competing priorities when delivering essential infrastructure. Firstly, investment in infrastructure is required to maintain and improve our standard of living, generate economic activity and meet growing demands for public services. Secondly, however, infrastructure is a considerable investment and must be delivered in a fiscal environment characterised by a range of competing demands.

Infrastructure in Queensland has historically been funded from consolidated revenue derived from taxation and grants – with the exception of some road projects fully or partially funded by toll revenues. The cost of this infrastructure has therefore been borne by all Queenslanders, regardless of how much benefit they receive from the project.

This traditional approach, however, does not reflect the fact that the additional value created by infrastructure can be clearly demonstrated and efficiently shared with infrastructure providers, through alternative "value sharing" mechanisms which have the potential to contribute to a fairer funding model, improve the viability of a project (or program) and enable the delivery of more infrastructure sooner.

"Value sharing" is a broad term used to describe a variety of mechanisms which enable governments to leverage future revenue streams from the uplift in value and economic activity – which occur as a direct result of infrastructure investment – with the aim of applying these revenues to project (or program) funding. This project funding can, in turn, be applied to the raising and repayment of project financing, and can support the development of more efficient and sustainable financing strategies.

The case for exploring changes to this paradigm is timely. Firstly, the Queensland Government has an ambitious plan for delivering infrastructure for the community as a means of growing State productivity and enhancing the liveability of the State's cities and regions – this is reflected in the *State Infrastructure Plan*. And secondly, there is growing precedent for and acceptance of alternative approaches around the world. Other Australian jurisdictions and the Commonwealth are focusing more on understanding value sharing as a distinct source of infrastructure funding. Many jurisdictions are systematically thinking about value sharing objectives, tools, and integration with project governance and broader tax systems. Furthermore, major projects and programs are increasingly being delivered with funding packages that include non-traditional revenue streams – examples include Parramatta Light Rail in Sydney, Crossrail in London, and Union Station in Denver.

Learning from what others have done successfully, infrastructure in Queensland can be implemented in a way that creates a fairer approach to funding, better designed projects and programs, and an improved pipeline - while also reducing the call on conventional budget funding.

The theoretical basis for value sharing

Infrastructure creates value for an assortment of beneficiaries:

- **Landowners, occupiers and developers** receive a benefit in the form of increased land and property values and the ability to profit from new development opportunities.
- **Users and operators** (of infrastructure assets and networks) are the most direct form of beneficiary. These benefits are financial as well as non-financial, and are highly valued by these beneficiaries.
- **Businesses and employees** benefit from projects which improve the delivery of goods and services to market, or support better access to and by the labour force.

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- **Governments** benefit from increased revenues from taxation caused by the ability of infrastructure to generate uplift in taxable land values and economic activity.

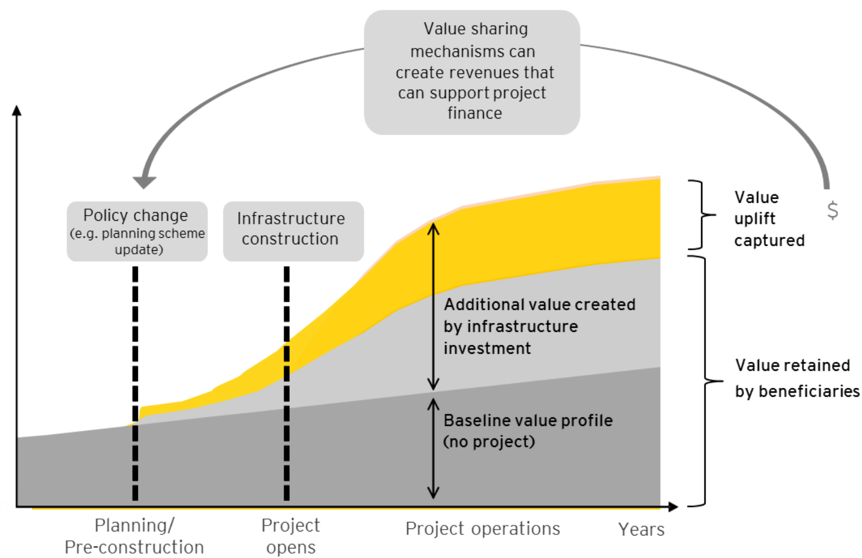
The traditional approach of using consolidated revenue for delivering infrastructure means that the burden is not shouldered proportionally by those beneficiaries who receive most – and sometimes all – of the value of the infrastructure, but is essentially shared across the community based on general taxation obligations. The costs and benefits of infrastructure are not equitably distributed.

Value sharing has the potential to address this imbalance and enhance the fairness of infrastructure funding by enabling those who directly benefit more from an infrastructure project to contribute an amount to its cost that is commensurate with that benefit.

It does this by identifying the value that infrastructure creates and the beneficiaries who will receive this value – and not just the value enjoyed by direct users of the infrastructure. The creation of this value can commence well in advance of construction. For example, planning scheme changes, or the declaration of Priority Development Areas or transport corridors, can have an immediate impact on land values in particular, in anticipation of future projects.

Once the value profile has been identified, mechanisms can then be deployed that enable funding contributions to be collected from beneficiaries to help pay for the delivery of the infrastructure in the first place. These mechanisms are highly 'scalable' as they are designed to be directly proportional to value creation, meaning that value sharing can be applied to projects large and small.

Importantly, appropriate strategies are needed for both the funding and the financing side of the infrastructure delivery equation – and one of these will not work without the other. Funding is the income that is received over time and used to meet the costs of a project. Value sharing and other alternative revenues are therefore sources of funding. Financing represents the set of financial arrangements that is put in place to provide committed capital to meet the costs of the project as they are incurred, which usually means up front during construction. Financing is one of the costs that is paid for by funding. The contribution of value sharing to each is demonstrated in the diagram below.



Once a project is identified, value sharing can also improve the case supporting investment in a piece of infrastructure. Recovery of even a small portion of project costs is not only beneficial to the investment case for that project but may assist in the development of a more substantial infrastructure pipeline across the State. This is because recycling some of the value created means that there is more funding available for infrastructure across a government's whole portfolio. This

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can potentially lead to a bigger pipeline of infrastructure projects and bring forward associated economic and social benefits.

Having said this, even where there is significant potential for value sharing to contribute to project costs, this factor alone should not change the underlying merit or priority of a project. The core community service objectives for pursuing a particular investment should remain the primary rationale for governments when they prioritise their infrastructure program. Value sharing should always be a means to achieving these core objectives, rather than an objective in its own right. In this context, project practitioners should always be aware that value sharing is not a 'silver bullet' and will not be appropriate for every project.

Value sharing has the potential to strengthen the link between project benefits and project planning in Queensland. It does this by explicitly embedding considerations of value creation into project development processes as a means of enhancing project outcomes and associated revenue opportunities. Taking a broader view of the value created by a project for a broad group of beneficiaries can introduce options for project design to solve other problems and create additional value for other beneficiary groups. In other words, by changing the design of a project, the capacity for value sharing for that project can be enhanced.

Sharing value in a formal funding arrangement can also create a level of accountability between investors and beneficiaries that is not always present in existing project development processes in Queensland. An example of this is the City Deals model in the UK, which is an example of the "payment by results" or "earn back" model whereby government reinvests a share of tax receipts generated by new economic activity into the project or programme that is considered to have catalysed the activity in the first place. The potential for the application of this model in Queensland is under consideration by the Government.

Funding mechanisms

Funding mechanisms are the instruments by which future value created by an infrastructure project can be monetised and used to repay project financing.

A number of funding mechanisms are analysed and evaluated for suitability in Queensland against the following evaluation criteria:

1. **Public interest, equity and stakeholder acceptance**: the ability to demonstrably leverage future benefits that are closely linked to a project and equitably provide for contributions from the right beneficiaries, at the right time, at the right level.

2. **Deliverability, efficiency, cash flow robustness and risk**: the ability to be implemented efficiently and simply to support the financing of infrastructure.

The results are summarised below, subject to the following scoring system:

Score	Description
✓✓✓	The option is considered very likely to meet the criterion.
✓✓	The option is considered moderately likely to meet the criterion.
✓	The option is considered less likely to meet the criterion.

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Beneficiary category	Funding mechanism	(1) Public interest, equity and stakeholder acceptance	(2) Deliverability, efficiency, cash flow robustness and risk
Landowners, occupiers and developers	Local residential rates levy	✓✓✓	✓✓✓
	State land levy	✓✓✓	✓✓✓
	Developer charges and contributions	✓✓✓	✓✓✓
	Property rights and commercial development	✓✓✓	✓✓✓
Users and operators	User charges	✓✓	✓✓
	Registration and fuel charges levy	✓✓	✓
	Operator dividends	✓✓✓	✓✓
Businesses and employees	Local business rates levy	✓✓✓	✓✓✓
	Payroll tax levy	✓	✓
Governments	Local government tax uplift	✓✓	✓
	State tax uplift	✓✓	✓
	Federal tax uplift	✓	✓

The evaluation suggests that there is significant potential in Queensland for contributions from landowners, occupiers (including businesses) and developers via mechanisms that involve the sharing of uplift in land and property value, commercial activity and associated profits created by infrastructure investment. The utility of mechanisms involving asset users and infrastructure operators is more mixed, while mechanisms involving the sharing of 'automatic' taxation uplift are generally more difficult to justify and challenging to implement.

Different funding mechanisms may be suitable depending on the project and the circumstances. Crucially, there needs to be a clear justification for the mechanism based on the value created by the project.

For example, the location of value created will be an important factor in mechanism design. Large-scale 'city-shaping' projects such as new roads or public transport connections will have a very broad spectrum of beneficiaries, likely spread over a wide geographic area. In this situation, a mix of both localised mechanisms and mechanisms that extend across a broad population base may be most appropriate. In the case of a more contained project, however, funding mechanisms might be more defensibly targeted to a smaller area and group of beneficiaries.

A further consideration will be the timing of the future value creation. While in some cases value will only materialise once an asset is operational, in other cases, it will start to be created in the planning or pre-planning stages (for instance, property and land value uplift due to planning scheme changes), and it may be possible to deploy funding mechanisms to equitably share in that initial value creation.

In practice, a package of mechanisms is likely to best reflect the fact that infrastructure creates value for different beneficiaries in different ways. Such a package would be designed to match the type and location of beneficiaries associated with the project, and commensurate with the quantum of the value created by the infrastructure.

Where a package of mechanisms is used, care is needed to ensure that there are no 'double hits' on beneficiaries – i.e. that they are contributing a disproportionate share of the value they receive, which may lead to them being 'crowded' or 'priced out'. At the same time, it is acknowledged that infrastructure has the capacity to erode value for some groups and individuals, and mechanisms to

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provide compensation for this value erosion are likely to form an important part of the funding package.

Financing strategies

The timing mismatch between early investment expenditure and the receipt of funding revenues means that a financing strategy is usually required to bring the benefit of future funding streams into present-day capital to finance the construction of the infrastructure.

In practice, a financing strategy will be tailored to the specific project or programme under development. It will be informed in particular by the scale and timing of costs (and revenues) associated with the project, and the timing, scale and packaging interrelationships of the funding mechanisms deployed.

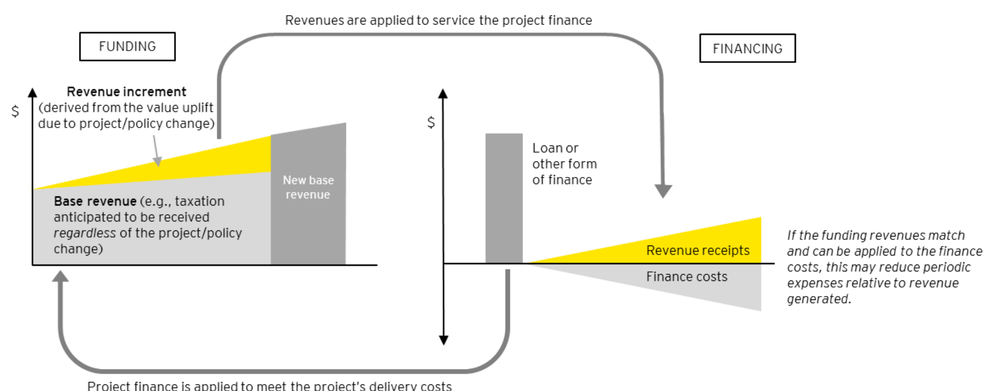
In considering the interrelationship of these cash flows, there are a number of characteristics of a funding package that are likely to be desirable to support an efficient financing strategy. These key 'principles' should guide the design of a funding package that can optimally support the raising of finance:

- the capacity of alternative revenues to be applied to service financing;
- the optimal allocation of revenue risk;
- the provision of a sufficient quantum of revenue; and
- the timing, certainty and predictability of the revenue.

Value sharing funding mechanisms have the potential to support, and even improve, the efficiency of 'conventional' investment models by providing revenues over an expanded timespan to support the allocation of taxation revenues. They can also assist the repayment of borrowings as and when the obligations arise, and protect the State's credit rating and public positioning.

In addition, they can support 'alternative' financing strategies, such as the development of new types of loan or bond products for the capital markets. Importantly, these strategies have the potential to support the broadening of the investor base for infrastructure, including increasing the attractiveness of the infrastructure market to institutional investors such as pension and superannuation funds, who may increase the competitive tension in the financing market, which at present is largely limited to conventional bank debt.

A key way in which value sharing can contribute to efficient financing (both conventional and 'alternative' strategies) is by designing the strategy so that the timing of future financing costs is aligned with the timing of projected revenue inflows, which can be applied to the servicing and repayment of finance. This creates a cash flow benefit and reduced need for working capital funding to support finance obligations, as illustrated in the diagram below.



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Implementation

For value sharing funding mechanisms to be successfully implemented, governments require the tools and processes to design, evaluate and execute them.

For Queensland, this would likely involve two broad steps. The first is to develop an overall policy framework in which value sharing and associated funding mechanisms and financing strategies are supported and routinely considered by policymakers and practitioners developing projects. This would involve the development of:

- policy;
- guidance;
- legislative or regulatory reform; and
- new governance arrangements

to create an environment that is conducive to new ways of delivering infrastructure projects. The challenge for Queensland is to develop a framework which enables value sharing to be implemented in a way that:

- retains the focus on delivering 'good' infrastructure for the community – in other words, ensuring value sharing is a 'means to an end', and not an 'end' in its own right;
- considers that value sharing mechanisms will be unique to each project, which means that any policy will need to be broad-based and non-prescriptive;
- requires a 'bottom-up' assessment of mechanisms, focused on rigorous forecasting, research and modelling of mechanisms and consideration of their appropriateness and delivery requirements;
- applies value sharing proportionally, without 'crowding out' or 'pricing out' beneficiaries, and recognising the potential for value erosion as well as creation;
- is supported by the community based on a shared recognition of value creation;
- has regard for legislative and regulatory constraints that may limit the application of certain mechanisms; and
- identifies the requisite approval and governance interfaces between State, Local and Federal Government.

The second stage would be to focus on the specific activities and practical 'steps' that practitioners should follow in the development of projects.

To a certain extent, the development of some of the alternative funding mechanisms can be undertaken in Queensland within the prevailing procedures, legislation and policy environment. However, they do represent a variation to traditional thinking, and add a greater level of complexity to project development that needs sophisticated forecasting, research and modelling. Accordingly, augmented or new processes and capabilities are likely to be required to supplement the existing procedures and skills within government agencies.

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