This research investigated how business case frameworks for major transport infrastructure projects might be applied to assessments of social housing as infrastructure, including approaches to cost-benefit analysis (CBA).

A number of different theoretical analysis models were considered, including alternatives to conventional infrastructure CBA methodologies, that could strengthen analytical methodologies and evidence-based arguments to support investment in social housing.

Understanding business case frameworks for social housing

Based on AHURI Final Report No. 312:
The business case for social housing as infrastructure

What this research is about

The context of this research

In order to improve the likelihood of investment from government and others, social housing sector practitioners have proposed that social housing be considered as another form of necessary infrastructure, such as transport and power supply infrastructure. However, to receive funding on an equivalent basis, social housing developments and investments must be able to demonstrate that they are providing value for money. Although social housing is recognised as having economic benefits, the systematic evidence-base for the wider economic value of state housing investment is underdeveloped. Conversely, the significance of CBA in transport decisions is often overstated with decisions frequently made in the absence of a substantive evidence.

The key findings

Understanding infrastructure development

Infrastructure development is presumed to be associated with economic productivity improvements that make the greatest benefit to the community. Such a rationale may not provide a strong argument for social housing, as decades of under-investment in social housing within Australia’s housing supply means it is now a provider for only those with the greatest needs, and who have limited employment prospects or other direct economic engagement.

Conceptualising social housing as infrastructure implies introducing wider non-welfare goals, such as providing better jobs access via well located housing for key and low-paid city workers (as could be the case with a road or rail link). However, the analytical methods by which to assess productivity gains from social housing are not yet sufficiently advanced. A reliance on productivity based arguments may distract from, or delay, responses to the large housing deficits resulting from inadequate levels of investment in this sector in recent decades.

Standard infrastructure business case methodologies

Independent appraisal authorities such as Infrastructure Australia and its state equivalents prioritise projects based on business cases and CBA, requiring problem definition and options assessment, through to detailed cost-benefit and financial analyses.

The New South Wales Treasury lists three mandatory requirements for business cases:

— an economic appraisal (supported by financial analysis) to evaluate the costs and benefits of the options, and to determine which option offers superior value for money
— a financial impact statement to evaluate the budget impact of the options and the preferred option
— a financial appraisal for capital projects of government businesses and all projects of general government agencies that involve a financing decision (e.g. outsourcing projects and joint public/private sector infrastructure projects).

For a project or policy to qualify as positive on cost-benefit grounds, its total social benefits must exceed its total social costs, typically measured by net present value (NPV), the benefits in excess of costs, and the benefit-cost ratio (BCR). The Handbook of Cost-Benefit Analysis used within the Australian Government distinguishes...
financial evaluation (‘What is the net benefit to the individual organisation?’) from cost-benefit analysis (‘What is the net benefit to the community as a whole?’)

“Compared to a standard infrastructure assessment, the outcomes are more complex and multifaceted, and cannot be meaningfully condensed into a single proxy such as the travel time savings measure used for transport infrastructure.”

Explaining Net present value and discounting

The net present value (NPV) of a proposal is the benefits in excess of costs, which are discounted over time to reflect preferences for receiving them today rather than tomorrow.

For assessment purposes and comparability, Infrastructure Australia requires appraisals to be presented for the following real discount rates:

— 4 per cent per annum
— 7 per cent per annum (for the central case)
— 10 per cent per annum.

The central case discount rate of 7 per cent aligns with rates used in state government infrastructure assessments within Australia.

Example of transport Infrastructure CBA

Key elements of transport infrastructure CBA include:

— the base case, which is a ‘business as usual’ rather than ‘do nothing’ assessment
— the modelling of travel time savings as the key determinant of benefits
— the discount rate, which reflects preferences for consumption today over the future with a 7 per cent rate generally used
— the treatment of benefits as marginal over base case, and measured for the community, not solely the project proponent
— the calculation of costs as theoretically opportunity costs, the value of the best alternative use of the resources, but in practice are based on cost estimates
— the use, increasingly, of risk and sensitivity to parameter changes, such as testing outcomes using 4 and 10 per cent discount rates
— use of Monte Carlo procedure to test variations in costs and benefits. This procedure calculates many different CBA outcomes using randomly selected values within the different parameters being used to assess the specific business case. It is standard to report the P50 and P90 net benefits, where P50 is the central point in the distribution: 50 per cent of the iterations estimated greater net benefits, and P90 is the value that 90 per cent of the calculations are greater than, providing a conservative scenario.

Are CBAs best for social housing?

Previous applications of CBA in social housing contexts either focused on specific benefits arising from housing, or omitted the range of non-market traded benefits that accrue from social housing, such as wellbeing, security of tenure and social inclusion. Assigning a price to these qualitative factors is complex and requires further technical methodological development.

Transport technical economic assessment has benefited from five decades of development and refinement; by contrast social housing economic assessment has seen little methodological development, largely reflecting lack of large scale investment since the 1970s.

The variation and exploratory nature of the relatively few examples of social housing appraisal in the existing...
literature reflect that the sector is subject to a more complex range of benefits, target cohorts and questions than is the case with transport infrastructure appraisal.

Two key points apply to considering business methodologies to the social housing sector:

— First, there is not a single ‘social housing question’ to apply business case methodologies to—the approach needs to reflect the intended outcomes of the project.

— Second, even though social housing may be conceptualised as infrastructure, it is not necessarily the best conceptualisation from which to develop business cases and advocate for more funding.

The second point is particularly relevant in the Australian context; social housing has become residualised, and a provider of last resort. Appraisal methodologies geared to productivity outcomes are unlikely to be a good fit. A focus on providing housing to reduce homelessness and to support those unable to find appropriate housing in the private rental market means productivity outcomes would be expected to be limited, as the people in these categories may also be unlikely to be in employment.

What should be measured

There are a range of questions that a business case could apply to a social housing appraisal, for example:

— Does increasing housing supply provide a better outcome than rental subsidies?

— Where should social housing be provided?

— What should be the mix of housing types and built form?

— What are the benefits of providing housing to specific cohorts?

Compared to a standard infrastructure assessment, the outcomes are more complex and multifaceted, and cannot be meaningfully condensed into a single proxy such as the travel time savings measure used for transport infrastructure. This comparative complexity influences which business case methodologies might be used for social housing, impacting on the capacity to make concrete recommendations on frameworks, data requirements and methodological developments.

These concerns do not mean that business case methodologies for use in developing social housing proposals should not be pursued, rather that there is a need to ensure that the conceptual basis and practical processes are fit for purpose, and that they provide benefits that are greater than the costs of development and commensurate with funding. Further consideration could be given to alternative conceptualisations and approaches that may provide a better foundation for funding arguments than infrastructure.

Alternates to developing business cases for social housing

Avoided cost approach

The ‘avoided cost’ approach offers estimates of whole-of-government fiscal savings across portfolios other than housing as a result of social housing provision, and thus avoids the issues of monetisation of ‘intangible’ dimensions of housing that a CBA would typically seek to calculate. The method has been developed within the social housing agencies and has been positively received by Treasuries. While avoided costs is a pragmatic solution for appraising social housing initiatives, it does not provide a holistic account of the environmental, social and economic benefits of social housing, nor is this approach a productivity assessment as savings to government are a fiscal matter.

Seeing social housing as a welfare/public health intervention—or considering the value the wider

Figure 2: Australian Transport Assessment and Planning guidelines CBA framework

Source: Adapted from Transport and Infrastructure Council (2018c: 3)
community places on providing housing for those in need—may provide better outcomes than an infrastructure conceptualisation.

**Housing adjusted life years method**

A number of different appraisal methodologies are presented in the research, however the feedback from CBA practitioners and sector representatives indicated interest in developing the ‘housing adjusted life years’ (HALY) methodology. The preference is that it is a method widely understood in government and the public service, and the processes for developing parameters are well established through public health measures. Conceptually, it provides a more direct connection to the current welfare intervention purpose of social housing in Australia.

The HALY construct is based on seeing homelessness or inadequate housing as a public health issue which reduces life expectancy and quality of life. The construct is inspired by public health and policy analogues such as the disability adjusted life years (DALY) or value of statistical life (VSL), which are used in the CBA of government programs that may impact on the length and quality of life of people within society.

The HALY method has advantages in that:

— the basic DALY method is widely understood in social policy circles and easily communicated
— it portrays housing as a public health issue, not an economic one
— HALY parameters could be used to assess a range of different housing questions
— it may fit into existing parameter governance structures, such as the AIHW.
— once established, processes to continually refine and develop the parameters could be instituted.

There is also a need for better tools for making decisions about the location and structure of social housing provision.

**What this research means for policy makers**

To the extent that conventional CBA may be developed for social housing, a vast methodological and technical effort is likely necessary to develop appropriate data, methods and techniques for this task. Such a program would likely only be justifiable if a very large-scale investment program were anticipated. But if the political decision to proceed with such an investment program has already been determined, then the need for CBA is largely obviated. In this sense, a determined political appetite for social housing investment can override the need for economic evaluation.

**Methodology**

This research reviewed existing policy, guidelines and commentary material about the preparation of business cases for major projects within the Australian infrastructure field including business cases from the past decade from a selection of major infrastructure projects in Australian major cities. In addition it interviewed respondents from public infrastructure, housing and economic agencies, including state transport departments and infrastructure assessment bodies. A focus group was held with housing providers, property developers, housing academics, and consultants to test potential future approaches and methods regarding the application of CBA to social housing.