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Affordable Housing Infrastructure Booster

A report and policy blueprint for the Community Housing Industry Association NSW

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Executive summary

The **Affordable Housing Infrastructure Booster (AHIB)** aims to increase the supply of affordable rental properties in areas experiencing particular housing market stress and/or areas of particular state priorities. **Properties must be let at least 20% below local market rents for 20 years to low and moderate-income households.**

Unlike the previous National Rental Affordability Scheme (NRAS), and a number of international initiatives, **AHIB lets the desired housing outcomes and locations determine the financial boost that is provided, rather than the financial boost conditioning the type of housing and locations that can be provided.** AHIB is responsive to variation in construction cost, land cost and local rent levels.

Like some international initiatives, **AHIB provides a tax credit that affordable housing developers can use to raise capital from investors and form equity partnerships.** This capital injection reduces the project's borrowing requirement and debts servicing costs, enabling a positively geared investment profile **and a much higher level housing that can be retained, or re-invested, beyond the initial 20-year affordability period.** AHIB is thus a vehicle for a long-term strategy to provide an infrastructure of affordable housing in Australian cities and neighbourhoods.

Unlike NRAS and a number of international initiatives, AHIB does not operate with *a priori* determined annual levels of support or project level subsidies. Instead, **affordable housing developers tender for the boost required to service borrowing costs at prudential standards and meet acceptable rates of investor returns.** Affordable housing developers can thus start by considering what type of housing is required where and then bid for tax credits to boost the financial viability of the project.

State level administering agencies evaluate tax-credit tenders against marginality thresholds and additional state level housing priorities and value for money outcomes. Marginality thresholds set the upper levels at which a project requires no more than a boost to make it financially viable.

AHIB is not a silver bullet. Tax credit bids that seek to cover the entire gross financing gap (see AHIB in 7 steps box) are usually not boosted. This provision intends to **crowd-in innovation, other equity investment/contribution, private sector innovation and/or state and local authority public policy levers** in the delivery of affordable housing projects.

Tendering for tax credits will produce market information to adjust and refine marginality thresholds over time. If the initial credit pool is too ambitious (relative to number of tenderers) then the competitive processes that enables identification of marginality thresholds is weakened. **The affordable housing supply aspirations boosted by AHIB should therefore be built-up gradually.**

Value for money measures, such as timeliness and low and moderate-income household targeting includes **affordability options beyond the 20-year affordability period, use-before provisions on claiming tax credits, tendering for tax credits and benchmarking of construction costs.** Operating AHIB on a net financing gap basis provides additional value for money options, such as tax credit to rent rebate standards.

AHIB specifically intends to **incentivise large-scale institutional investment by** enabling equity partnerships, flexibility in matching tax credits to tax liabilities, tradeable tax credits and a time-value adjusted rise in the level of tax credits.

AHIB provides a boost to affordable housing infrastructure projects, not individual households. Monitoring and reporting of low and moderate-income occupancy standards are therefore on a project basis, rather than a tenancy basis. This provides **additional security for tenants if their income status changes and additional flexibility for housing providers in managing and creating mixed communities.**

AHIB complements the existing suite of Commonwealth and State level instruments and policies to deliver affordable housing. For instance, reduced borrowing requirements boost the financial characteristics of affordable housing projects and so the ability to meet the prudential lending standards of the National Housing Finance and Investment Corporation.

AHIB is intended to enable a financial boost to projects that otherwise would not be built, or not built for low and moderate-income households. In doing so, **it also addresses a number of key issues – notably institutional investment attractiveness, delivery of affordable housing in tight housing markets and length of affordability period** – identified in previous domestic and international policies. Institutional investment in affordable housing is a longer standing Australian public policy objective.

AHIB in 7 steps for housing provider tendering for a specific affordable housing project:

1. Project planning and estimation of affordable housing project costs.
2. Estimation of rental revenue stream generated by the affordable properties, including any operational subsidies and, where relevant, commonwealth rent assistance.
3. Estimation of borrowing and interest cost serviceable by the affordable housing project's rental revenue stream while meeting prudential lending criteria, e.g. interest coverage ratio and rates of return.
- = Project cost – borrowing serviceable by rental revenue stream generates the gross financing gap.
4. Identification of additional equity contributions in the form of capital and land.
- = Gross financing gap – additional equity contributions generates the **net financing gap**.
5. Submit **tender for tax credits** to meet net financing gap; and meet prudential lending standards and investment returns. Tax credits can be sold to investors in return for additional equity injection and formation of an equity partnership.
6. The administering agency evaluates tax credit tender against **marginality thresholds** (upper level at which a project is deemed supportable by the Booster) and additional state level housing priorities and value for money outcomes.
7. Investor benefit through a dollar-for-dollar reduction in tax liability for a flexible period of time (5-15 years). The tax credits are tradeable and adjusted for the time value of money providing investors with risk reduction and an additional financial incentive.

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Introduction

In July 2018 the Centre for Urban Transitions was commissioned by the Community Housing Industry Association (CHIA) NSW to develop a blueprint for a new public policy initiative aimed at incentivising the provision of affordable rental properties for low and moderate-income households.

Housing affordability and affordable housing are central to policy debates around social justice, wellbeing and productivity. In Australia worsening affordability in the form of high housing costs are well documented and debated. There is also an increasing realisation that affordability issues and access to housing is not only an issue related to poverty or very low income families and households, but extends to low and moderate-income households and occupations that are central to the functioning of public services and the knowledge economy (Yates *et al* 2006, Hulse *et al* 2015).

In Australia the concept of 'affordable housing' often refers to housing that is available for rent or purchase at below-market price and subject to access and affordability criteria (Gurran *et al* 2018). In practice this definition spans public housing, community housing and private rental or ownership at below-market price, or a continuum of housing that also represent distinct asset classes (AHWG 2016).

While public and community housing have longer histories in Australia the introduction of affordable rental is a relatively recent phenomenon. An important catalyst for the emergence of affordable rental as an asset class was the introduction of the National Rental Affordability Scheme (NRAS) in 2008 (AHWG 2016, Rowley *et al* 2016).

A key achievement of NRAS was the leveraging of private investment in the supply of affordable rental housing thereby facilitating a new housing asset class that relied on a mixed market approach and responsive to wider market changes (such as rents) (Rowley *et al* 2016). Affordable rental thus provides an intermediary housing entry point for low and moderate-income households or an affordable rental option for tenants existing public and community housing. Moreover, NRAS worked well with other subsidies and policies to generate mixed tenure developments (Randolph *et al* 2018); and, despite its flat rate structure, did deliver some diversity in housing outcomes (Rowley *et al* 2016).

Notwithstanding important achievements associated with the introduction of NRAS the policy was also criticised for not providing longer-term incentives for maintaining the affordable rental asset class (Milligan and Pinnegar 2010). Below-market access was, under the scheme, locked-in for 10 years, with the property owner thereafter free to let the property at prevailing market rates. The first NRAS properties reverting to market rent will take place in 2019. There were also concerns about the effectiveness of providing supply for low and moderate income working households as opposed to (growing) student populations, especially overseas students (ANAO 2015); and the effectiveness of its administration, e.g. risk management, planning and governance (Rowley *et al* 2016, ANAO 2015). Finally, the flat-rate subsidy structure (and level) was poorly suited to deal with variation in land and development costs, resulting in weaker incentives for developers to deliver housing where land costs are highest (Ge and Susilawati 2013); the reliance on additional planning measures and financial incentives thus also varied geographically.

For the supply of affordable rental properties, below-market price means lower rents and consequently lower net operating income. Without additional financial or regulatory incentives lower operating income mean lower return on investment and, in many cases, difficulties meeting prudential lending standards. Moreover, below-market rent increases investor risk by limiting the extent to which rent increases (rental income) can compensate for variation in other factors (capital gains) determining rates of return. This is an important point to bear in mind with respect to the house price cycle in a number of Australian capital cities – a decline in property prices, and thus capital gains expectations, puts additional pressure on rents to balance the investment profile of new supply. Moreover, rents too vary over time and in different localities. Accordingly, without additional incentives that address the funding gap and investment risk a developer has little incentive to build affordable housing, in the presence of more attractive investment options (AHWG 2016).

The funding gap can, broadly, be addressed in two ways. Firstly by reducing the borrowing requirements of developments and thus ensure that development projects are financially viable and attractive to investors even with the reduced rental income often accompanying affordability criteria. This approach would typically involve some form of upfront equity injection to reduce the required borrowing amount. Upfront injections can be through direct public grant provision or indirectly through a combination of tax incentives and institutional investment. Secondly, by topping up the income stream associated with letting properties to low/moderate income households in the form an operational support or improving after tax profitability through a system of annual tax credits.

Throughout this report the focus is on reducing borrowing requirements through a combination of tax credits and institutional investment. It is, however, acknowledged that a direct capital grant provision, while politically less expedient, can economically be more efficient. Moreover, policies such as housing vouchers (United States of America, USA), housing benefits (UK) and Commonwealth Rent Assistance (CRA) are important means of addressing affordability issues and, under some conditions, incentivise new supply of affordable housing. However, recent AHURI research also argues that where funding for affordable housing *otherwise is dependent on market based debt funding*, operational subsidies may prove lower value for public money. The higher debt servicing cost associated with these models increases the required operating subsidies and/or income supplements such as CRA or social security payments to finance affordable housing (Lawson *et al* 2018:7).

A number of developed countries experience similar challenges and in looking to provide a blueprint for a new public policy initiative, it is therefore instructive to outline the approach taken in the USA, where a tax credit system is in place, and Germany, where an Accelerated Deprecation Allowance is in place. The remainder of this report is divided into 3 sections.

Section 1: Provides a brief overview and context of the now closed NRAS scheme as well as a number of contextual changes since the introduction of NRAS.

Section 2: Provides an overview of public policy measures that address the funding gap and provision of affordable rental in the United States of America and Germany.

Section 3: Draws on lessons from NRAS and international experience to set up a blueprint for an Affordable Housing Infrastructure Booster to incentivise the supply of new affordable private rental.

Section 1 Affordable housing policy context

The introduction of NRAS in 2008 was the first initiative in Australia that specifically focused on increasing the supply of affordable private rental accommodation. NRAS was described as a 'new asset class' (Plibersek 2008, in Rowley *et al* 2016) intended to bring private investment and, a longer-held aspirations by Australian governments more broadly, institutional investment into provision of residential property.

NRAS was established in context of growing affordability concerns and evidence that despite a concentration of new rental supply in the mid-market range this housing was in the majority cases taken up by higher income groups, resulting in a mismatch of income and rental cost quintiles (e.g. Yates *et al* 2004). Reporting in 2009 the National Housing Supply Council's State of Supply report estimated a requirement for an additional 250,000 affordable rental dwellings for lower income households in Australia (Australian Government 2009:98). A more recent analysis estimates that some 727,000 new social housing dwellings is required by 2036 to address the current and emerging shortfall (Lawson *et al* 2018:4). This estimate includes income quintile 1 households currently paying more than 30% of income on rent, but not moderate-income households in income quintile 2.

However, the introduction of NRAS also coincided with a wider economic stimuli package intended by the Rudd government to boost demand for labour, goods and services in the economy in response to a changing macroeconomic environment following the Global Financial Crisis (GFC). One of the complementing pillars of this stimuli package was the Social Housing Initiative aimed at expanding the stock of social housing as well.

Under NRAS private investment in affordable rental accommodation was incentivised through a flat-rate 10-year recurrent tax credit, or cash payment (for charitable institutions), intended to reduce the financing gap in provision of affordable rental accommodation to low and moderate income households. Rents were capped at 80% of market value and eligibility was means tested (income) to ensure properties were let to low and moderate income households. Key strengths of NRAS was the predictability of recurrent subsidy over a 10 year period provided eligibility and rent ceiling criteria were adhered to. This enabled investors to service debt and/or improve after tax returns. Moreover, the scheme played an important role in signalling public policy commitment and private sector opportunities for investment in affordable rental housing (Lawson *et al* 2009).

Discontinuation

The scheme was discontinued in 2014 by the Abbot government after delivering 36,721 dwellings. The Budget Review 2014-15 identified a lower than anticipated supply of new dwellings, non-participation by institutional investors, a series of administrative issues, including controversy around NRAS properties being let to overseas students (Thomas 2014, ANAO 2015). Moreover, by 2014 Australia's net debt had gone from a surplus in the years immediately preceding the GFC (and low by international standards in the early 2000s) to ca 13.9% of GDP in 2014-15; similarly the budget cash balance reversed from a surplus in the years preceding the GFC to a deficit of 1.8% of GDP in 2014-15 (Dolamore 2014). Net debt is not expected to return to pre-GFC levels until the end of the 2020s.

The Abbot government's reasoning points to a number of issues that will be relevant in ensuring bipartisan support for an affordable rental scheme: incentivising institutional investors; and governance (including eligibility) of a scheme. Additional critique of the scheme relate to the flat-rate nature of NRAS and its ability to address the funding gap across different localities (Lawson *et al* 2009, Ge and Susilawati 2013).

Absence of institutional investment

NRAS provided a flat-rate subsidy for 10 years. This flat-rate subsidy made it possible for not-for-profit organisations to augment their cash flow and improved the after-tax cash surplus for small-scale investors (e.g. family trusts, self-managed superannuation funds). However, in the absence of additional financial or planning instruments to close the funding gap NRAS business models relied on capital growth (Lawson *et al* 2009) and/or negative gearing to generate returns on investment. For instance, the disposal of properties over time or after the end of the subsidy period was instrumental in bringing down the cost of capital and pay off debt. For small scale or individuals purchasing NRAS properties the tax free subsidy combined with tax deductible interest payments, property expenses and depreciation allowance (Section 43) enabled additional subsidy through negative gearing (Questus n.d.)

While this is a business model that is familiar to many Australian private rental sector investors, it is not a business model that is conducive to institutional investors, such as pension or superannuation funds, looking to service ongoing liabilities from an ongoing source of income. For an institutional investor with ongoing liabilities investment in residential property needs to generate an ongoing cash flow return. Notwithstanding interview evidence suggesting growing institutional interest in NRAS and affordable rental investment (Milligan *et al* 2013) the longer-standing aim of involving large institutional investors (such as superannuation funds, pension funds, banks and unit trusts) was not achieved. According to Milligan *et al* (2015), no institutional finance was actually secured. Take up of the scheme was primarily by not-for-profit organisations as well as small-scale investors such as family trust and self-managed super funds.

Traditionally financing of below market price accommodation has been the domain of the public and charitable/NfP sector. NRAS stimulated partnerships and mutual learning/knowledge across the NfP, for profit, development and financial sectors, but this was a process that was expected to take time to bed in and require sector-led innovation (ERC 2015). Crucially, scale of operations as well as ongoing political and institutional stability were identified as co-determinants of sectoral innovation and collaboration coming to fruition (Milligan *et al* 2013, ERC 2015). The absence of certainty and longevity of the scheme as soon as the height of the GFC had passed significantly increased the risk for institutional investors in entering the affordable rental-housing segment.

Financing gap across localities

From a financial perspective, the flat rate subsidy provides a higher return where land values and construction costs are lower (Ge and Susilawati 2013). Across Australian cities this tends to be the case further away from the CBDs and employment centres. As such, NRAS attracted criticism for not incentivising affordable housing in the most unaffordable areas and/or that a 20% discount on rents in high demand areas did not itself constitute an affordable rent (ERC

2015). Notwithstanding this critique the outcomes of the scheme were actually more nuanced. For instance, AHURI found that while the majority of NRAS dwellings are small and medium sized properties, some 17% being studio apartments, the scheme did succeed in providing a diversity of housing outcomes (Rowley *et al* 2016). Moreover, NRAS properties were typically located in areas with mid-range socio-economic characteristics, but also tight rental markets (Rowley *et al* 2016). The latter is indicative of NRAS properties being located also in higher demand areas and that suggesting that location was also influenced by ability to let or sell beyond the NRAS incentive period. In other words the time limited subsidy, and therefore investors making decisions also on the basis of the value of their investment post-NRAS, may have contributed to properties being provided in higher demand areas than otherwise would have been the case. This provides an argument for avoiding excessive affordability tie-in periods.

At the time of its introduction NRAS was the only financial incentive to assist provision of affordable private rental. Thus while NRAS in practice could operate in conjunction with other means of supporting below market rental, the subsidy by itself was insufficient to address the financing gap and enable a positively geared business model that would match the liability profile of institutional investors. Research by Australian academics suggests that, depending on the size of the financing gap, a package of subsidy and support mechanisms are required to facilitate a positively geared business model including planning measures, access to lower costs loans, land and capital grants (Lawson *et al* 2009, Milligan *et al* 2013, Rowley *et al* 2016).

Governance

Several submissions to the Senate's Inquiry into affordable housing identified governance issues relating to management of the application process, eligibility, trading of incentives and delays to delivery (ERC 2015). The ANAO's audit of the Administration of the National Rental Affordability Scheme similarly identified a range of implementation and design aspects resulting in implementation delays, lack of implementation capability and management of risk (ANAO 2015).

However, several of these design and implementation issues were addressed as they came to the fore and good-practice examples, such as Queensland's administration of NRAS, provided viable solutions to several of the identified criticism.

What has changed?

In thinking about developing a replacement for NRAS it is worthwhile to briefly reflect on some of the changes to the context of affordable private rental provision since 2008.

National Housing Finance and Investment Corporation and Affordable Housing Bond Aggregator

In 2018 the Australian government established the National Housing Finance and Investment Corporation (NHFIC) to manage the Affordable Housing Bond Aggregator (hereafter Bond Aggregator). The Bond Aggregator is a fund raising platform and loan provider for the community housing sector with an initial government underwritten funding of \$1 billion (NHFIC 2018).

NHFIC was established to:

- Strengthen efforts to increase the supply of housing;
- Encourage investment in housing, particularly in the social and affordable housing sector;
- Provide finance, grants and investment that complements, leverage or support Commonwealth, State and Territory activities that relate to housing; and,
- Contribute to the development of scale, efficiency and effectiveness of the community housing sector in Australia.

By pooling the loan (credit) requirements of several community housing providers the Bond Aggregator seeks to diversify risk and provide scale for investors in order to reduce the cost of borrowing. Lower cost of borrowing is then passed on to community housing providers in the form of loans from NHFIC. The advantage for community housing providers is access to lower cost funding over a longer timeframe than otherwise obtainable through bank debt funding. Assessment criteria of projects and loans will be on par with bank and commercial lending more generally.

Funds from the Bond Aggregator can be used in conjunction with other forms of support (financial, land or planning related) to bring down the cost of borrowing for new affordable dwellings and so support lower rental contributions by tenants.

A Bond Aggregator by itself is, however, insufficient in many cases to address the financing gap for social and affordable housing (although lower financing costs will improve the cash flow associated with new affordable rental properties). Access to NHFIC funding will typically be capped at a loan-to-value ratio of approximately 50% and a minimum interest coverage ratio of 1.25. While potentially reducing the cost of finance, and so increase the amount of debt that can be serviced by a rental stream, additional planning and financing instruments will typically be required to address the funding gap in the provision of affordable rental housing. Moreover, to gain acceptance as a trusted paper in the bond market NHFIC will need to generate scale and ongoing issuance. This will require a pipeline of CHP projects and so additional means of addressing the funding gap.

National Regulatory System for Community Housing

The National Regulatory System for Community Housing (NRSCH) was established in 2014. Its vision is to ensure that the community housing sector better meets the housing needs of tenants, but is also open to for-profit providers. In addition, standardisation and common regulatory framework is intended to provide assurance to governments and reduce investor risk by monitoring financial viability and asset management. NRSCH aims to achieve this by (NRSCH 2014):

- Providing a consistent regulatory environment to support the growth and development of the community housing sector;
- Paving the way for future housing product development; and,
- Reducing the regulatory burden on housing providers working across jurisdiction, and creating a level playing field for providers seeking to enter new jurisdictions.

The establishment of NRSCH begins to address one of the risk factors for institutional investment in affordable housing identified by investors (Milligan *et al* 2013). In particular, by standardising the regulatory framework and monitoring financial viability the transaction costs (monitoring, compliance and understanding) for institutional investors to engage and invest in and with community housing providers is reduced. Reduced transaction costs lowers the risk of investment and consequently the risk premium (additional interest rate) required by investors. A standardised regulatory framework was instrumental in leveraging private finance for large-scale voluntary stock transfer in the UK (Gibb and Nygaard 2006, Nygaard *et al* 2007).

However, NRSCH is not yet implemented consistently across the states with definitions of what constitutes assets in each jurisdiction defined in separate national laws. As a result, the treatment and identification of affordable housing varies between and even within states. Victoria and Western Australia are yet to join NRSCH. While providing greater consistency and professionalization of the CHP sector the full potential of a national regulatory system is not yet achieved. Moreover, NRSCH is a framework for regulating Community Housing Providers that deliver, and are monitored, on a range of additional activities that are not applicable to all affordable rental provision. A review of the NRSCH is not expected to complete before end 2019, at the earliest.

State level social and affordable housing initiatives

Following the introduction and demise of NRAS a number of state initiatives have emerged that seek to incentivise the provision of affordable (rental) dwellings. A selection of initiatives in New South Wales and Victoria are presented below as examples of policies that exists to address the funding gap in affordable housing and that the here proposed Affordable Housing Infrastructure Booster should seek to complement.

New South Wales

Social and Affordable Housing Fund (SAHF): The SAHF was established in 2016 to provide a long-term operating subsidy to bridge the funding gap between rental payments received from tenants and government subsidies and the revenue required to provide accommodation, asset and tenancy management, coordination of specialised support services for tenants with additional needs and performance and data monitoring. The SAHF was established in legislation thus signalling permanency and set up with a \$1.1 billion seed capital of which the investment returns will be used to fund ongoing commitments. Investment of the funds are manage by the NSW Government's investment arm Treasury Corporation and expected to provide an annual return of some \$44 million (4%) over a 25 year period. Earnings from the funds are ring fenced for social and affordable housing and support provision.

SAHF is expected, in Phase 1 and 2, to deliver 3,400 dwellings. Dwellings can be delivered via new construction, refurbishment or repurposing of existing dwellings or long-term lease arrangement. The net supply of new dwellings (across the housing market) may thus be less than the targeted number of social and affordable dwellings. Under the scheme developments need to incorporate a minimum of 70% social housing with the remainder being affordable rental.

Community Housing Providers and NfPs can bid to enter into a 25-year service agreement to deliver accommodation and support/coordination services. Funds from SAHF will provide an

operation subsidy over this period. The fund thus incorporates elements of innovation from social impact finance by being structured as a payment by outcome arrangement and explicitly recognises the additional cost that low-income housing providers face in terms of tenancy, asset management and additional tenant support.

State Environmental Planning Policy (Affordable Rental Housing) (AHSEPP): The affordable rental housing scheme under AHSEPP was introduced in 2009 as a means to incentivise the development and supply of new affordable housing. Under AHSEPP a density bonus is available to developers in return for affordable housing. The additional properties have to be let at 20% below market rate for 10 years; affordable housing elements are required to be managed by a registered community housing provider (SEPP 2009). Under the revised State Environmental Planning Policy no. 70 specific council are allowed to set affordable housing contributions for certain precincts or areas within their government area. Unlike the SAHF, there is no additional financial or revenue stream incentive beyond the density bonus, and developers are entitled, as under NRAS, to charge market rents at the end of the 10-year tie-in period.

Victoria

Victorian Social Housing Growth Fund (SHGF): The SHGF was established in 2018 as a dedicated source of finance for new social and affordable housing development. The SHGF is intended to incentivise partnerships between the Victorian government, community housing sector, private sector, not for profit sector and local governments. The investment returns from a dedicated \$1 billion fund is expected to fund the delivery of some 2,200 newly constructed or leased dwellings over 5 years. At a rate of return of 4% (after accounting for inflation and management of the funds) this could provide investment funds in the order of \$200 million over 5 years. The SHFG will fund two programs: a Build and Operate Program (BOP) and a New Rentals Development Program (NRDP).

BOP will provide funding for the construction of new social and affordable housing dwellings on non-Victorian Government land. Developments may include private housing (mixed developments) or other development proposals brought forward by developers. NRDP will provide recurrent funding to lease new dwellings from the private sector.

The SHGF will be administered jointly by the Treasurer and the Minister for Housing, Disability and Aging. Commissioning, procurement and performance management will be undertaken by the Department for Health and Human Services (DHHS) in order to align priorities and outcomes with wider social housing policy objectives. The SHGF is thus primarily a social policy initiative that also requires Community Housing Providers to sign up to the Victorian Housing Register (VHR). Participation in the VHR requires that 75% of social housing vacancies be allocated to priority access category on the VHR. Allocation of tenancies for any new social housing developed with funding from the SHFG will be coordinated through the VHR. For a number of CHPs and NfPs the allocation of social housing vacancies to the priority access category will have significant implications for the cash flow of existing projects.

Building Financial Capacity of Housing Agencies (hereafter Financial Capacity Program): was established in 2016/17 to assist Community Housing Providers and select Housing Providers to reduce the cost of borrowing for new housing investment. The financial capacity program will in the first instance operate for 6 years and consist of a \$550 loan facility to provide long-term subordinate loans to eligible housing organisations and a \$550 million loan guarantee to reduce the market rate of borrowing.

The Financial Capacity Program is administered by the Department for Health and Human Services.

Public finance

Compared to the situation when NRAS initially was developed (2007/08) Australia's public finance situation has significantly changed. Having declined through the 1990s and early 2000s Australia's government debt to GDP rose from 11.7% in 2008 to 41.9% of GDP in 2017. Similarly, the government's budget deficit has been negative since 2009.¹

The major political parties are all concerned with reversing the current public finance deficit with the implications that a public policy that adds directly to public expenditure will have greater difficulty in attracting the broad political support that is required for private finance and institutional investors to renew their interest and trust in affordable private rental as viable business plans. NRAS to date has been dominated by NfPs and individuals that in many cases will have had access to NRAS subsidy in the form of cash (as endorsed charitable organisations) rather than a tax offset.

¹ Debt statistics are from www.tradingeconomics.com

Section 2 – international models

This section reviews two international fiscal models for providing affordable rental property. The rationale for their inclusion is that they exemplify specific fiscal incentives in place for subsidising private investment in affordable housing. However, these incentives are structure and implemented differently, allowing focus on three aspects of particular relevance in developing an Affordable Housing Infrastructure Booster:

- Incentivising private capital.
- Length of affordability period.
- Location of properties in high land value/demand urban areas.

Unites State of America

The Low-Income Housing Tax Credit (LIHTC) was created by the Tax Reform Act (1986) as key mechanism for delivering affordable rental housing in the United States of America (USA).² Since 1987 LIHTC has provided over 3 million dwellings with an average annual addition of approximately 109,000 affordable properties. Allocation of tax credits is on a per capita basis, where states receive allocation rights proportional to their population. Affordability requirements remain in place for at least 30 years. To qualify for tax credits developments need to meet an affordability criteria, i.e. a property is deemed affordable where rents are less than 30% of imputed income based on the median local area rent;³ and developments reserve at least 40% of dwellings for households earning less than 60% of the local area's median income, or 20% of dwellings for households earning less than 50% of the local area's median income.

The 2018 Consolidated Appropriations Act added a third alternative whereby income is averaged across tenants. The 'income test' is thus met if at least 40% of dwellings are occupied by tenants with an average income that is equal to or less than 60% of the local area's median income (Keightley 2018). Tax credits are only awarded for the affordable properties in any given development. Affordability criteria are set at federal level, but states can impose additional criteria or amend the criteria incentivise a greater supply of affordable dwellings.

LIHTC was also the structural blueprint for Australia's NRAS in 2007-08. Discussion of and lessons from LIHTC for the Australian context has been reported in a series of AHURI reports (Lawson *et al* 2010, Milligan *et al* 2013, Rowley *et al* 2016).

Incentivising private capital: Participation of institutional investors and private equity in the provision of low-income affordable housing in the USA is premised on both a supply and demand side initiative. The latter is often not emphasised strongly in Australian analysis of LIHTC.

LIHTC provides an annual supply of tax credit to investors for 10 years. Tax credits are primarily based on the eligible construction cost of new development. The eligible basis includes hard costs, e.g. construction costs, and most depreciable soft costs. Land, commercial space and

² The Tax Reform Act (1986) substantially altered the previous structure of accelerated depreciation allowances and investment tax credits to incentivise capital formation and, in particular, the accelerated cost recovery affecting real estate investment (Yorio 1987). The LIHTC was introduced as a result of the 1986 reform removing other incentives for investment in affordable rental housing (Cummings and DiPasquale 1999).

³ Rent imputation takes into consideration number of bedrooms and number of people per bedroom (OCC 2014).

professional fees exceeding state determined limits are excluded. When designed the incentive was intended to subsidise 70% and 30% of eligible costs of newly constructed or rehabilitated affordable rental properties, respectively.⁴ Since tax credits are claimed over a 10-year period the US Treasury calculates the applicable annual credit rates as a discounted flow of future revenues equal to either 70% or 30% of the present value of eligible costs. By convention these are referred to as 9% and 4% tax credits, respectively. However, the actual annual tax credit awarded was, until recently, variable and depended on market interest rates at the point in time when the property was taken into service.

Present value calculations are based on US Treasury determined discount rate (linked to market rates) rather than investor's own discount rate. The discount rate is based on the rate applicable when the property was taken into service, not when the project was developed or LIHTC status awarded. Both variations in the discount rate generated investor uncertainty.

In practice the method of calculating the present value of future tax credits results in a lower applicable annual LIHTC percentage when interest rates are low. Between 1988 and 2008 the applicable LIHTC rate therefore declined from approximately 9% to 7.9%, reducing the amount of equity raised for affordable housing investment. In 2008 a temporary 9% floor was set for the 70% subsidy. The 9% floor became permanent as part of the Protecting Americans from Tax Hikes Act in 2015 (Keightley 2018, Scally *et al* 2018). In a low interest environment, such as is currently the case, the effective subsidy rate therefore becomes variable.

For instance, the construction of an affordable housing project that is subject to the 70% tax credit and with an eligible cost base of \$1,000,000 produces a stream of tax credits equal to \$900,000 over 10 years ($10 \times 9\% \times \$1,000,000$). In a low interest rate environment, say 2.3%, the present value of this stream of credits is approximately 81% of the eligible cost basis. In the absence of a floor, the annual tax credit would be approximately 7.74% or \$774,000 in equity investment. Development of an existing building that is subject to the 30% subsidy with the same eligible cost base would, on the other hand, produce a stream of tax credits equal to \$331,000 ($10 \times 3.31\% \times \$1,000,000$).⁵

US Not-for-Profit (NfP) developers, like many Australia NfPs, benefit from a series of tax concessions and therefore sell the credits to investors to raise equity for affordable housing developments. For-Profit developers can either reduce their own tax liability or sell the credits to raise additional equity.

While the LIHTC scheme has been instrumental in channelling private sector equity into affordable rental housing in the USA its attractiveness, and so its ability to raise equity per \$1 of tax credit, rests on a number of additional factors.

- Tax credits are attractive for organisations and firms that seek to reduce their tax liability. Variations in macroeconomic conditions, such as the great financial crisis, that reduce the profitability of firms and organisations also reduce the attractiveness of purchasing tax credits. During the GFC the price paid in exchange for each \$1 tax credit was \$0.60 (Scally *et al* 2018). The price subsequently recovered. In a longer perspective, the price per credit typically fluctuated between \$0.80-0.90, although it increased to

⁴ The 30% subsidy is also available to new construction that additionally source funding from tax-exempt bonds.

⁵ 3.31% is the IRS published applicable LIHTC rate for under the 30% PV rate.

\$1.05 in 2016.⁶ From a public policy perspective: under conditions of macroeconomic volatility, when investment in affordable housing may be considered an additional policy lever to maintain demand for goods and services, a tax credit intended to raise equity finance becomes a weaker public policy instrument.

- The value of tax credits are also dependent on general taxation levels and changes. For instance, the introduction of the Tax Cuts and Jobs Act (TCJA) in 2017 was followed by a decline in the price of LIHTC tax credits from \$1.05 in mid-2016 to \$0.91-0.93 between Feb 2017 and Sept 2018.⁷ The TCJA reduced federal corporate income tax from 35% to 21%. A lower price paid for tax credits translates into a less equity for affordable housing investment. When making a decision to purchase LIHTCs investors consider their tax liabilities over the period of the project (OCC 2015). Recent research suggests that a means of making LIHTC more attractive for investors in light of current tax changes would be to either shorten or amend the rules for claiming tax credits, or facilitate trade, to better match the, uncertain, future tax liabilities of investors (Eriksen and Lang 2018).
- When incorporating the time value of money the ability to raise equity finance through tax credits varies with market interest rates. When interest rates decline total equity capital raised also declines. Alternatively, and as has been the result in the USA, if the tax credit is fixed the total level of subsidy varies with the market interest rate. In a low interest environment this means the effective level of subsidy increases.
- Investors' motivation for purchasing LIHTC are related to tax minimisation, the rate of return generated by investments and, importantly additional institutional drivers (Keightley 2018). In the USA the after-tax yield on LIHTCs typically exceed the after-tax yield on 10-year Treasury bonds (OCC 2015).
- Some 85% of corporate investors in LIHTCs are banks (Scally *et al* 2018). A key incentive for banks is the eligibility of LIHTC projects for Community Reinvestment Act (CRA) consideration. The CRA was enacted in 1977 and provides incentives for banks to meet the credit requirements of the communities they serve. A bank's CRA record subsequently co-determines the assessment of banks' applications for mergers and acquisitions, additional branch openings and/or deposit facilities. The CRA thus provides a corporate social responsibility incentive that produces additional benefits beyond the financial consideration of individual affordable rental investment opportunities.

Length of affordability period: While tax credits are claimable for 10 years LIHTC properties need to remain affordable for 30 years. The 30 year period is divided into a 15-year compliance period where the Internal Revenue Service (IRS) can recapture some or all of the credits if projects are found not to meet the rent and income tests; and an additional extended use period for 15 years where properties need to remain affordable, but definitions of affordability may change and are the result of negotiations with the states. Individual states may, however, negotiate or require extended use periods that exceed 15 years. Compliance, in the first 15 years, is enhanced through the ownership structure of LIHTC projects.⁸

⁶ Novogradac & Company: <https://www.novoco.com>

⁷ Novogradac & Company: <https://www.novoco.com>

⁸ LIHTC investment can be made directly or via partnership in an investment fund organised by a syndicator. Tax benefits are distributed according to ownership interest. Therefore, in either version the NfP or fP project developer holds a nominal ownership interest (0.01%) in the affordable housing project with the LIHTC investor or investment fund holding the balance (99.99%). As general or managing partner the NfP or fP developer is responsible to managing tenancies and properties. Tax credits and other taxation implications (e.g. depreciation allowances) are passed through to the limited

Investors can exit partnerships during the affordability period. Typically, this happens after the initial 15-year compliance period as the project has ceased to produce tax credits and non-compliance no longer is associated with the threat of recapture. Terms of investor exit are established in the partnership agreements and need to reflect the requirement for projects to remain affordable and economically viable also after the investor's exit (OCC 2015). Investors existing after 15 years request the state's Housing Finance Authority (HFA) to identify buyers that will continue to operate the property as affordable rental, in many cases this will be the managing partner or project developer (OCC 2015). Where a buyer cannot be found the developer is, in some states, released from the affordability requirement.⁹

As was the case for NRAS, there is no requirement for LIHTC properties to remain affordable in perpetuity. Little is known about the affordability status of properties beyond their 30-year affordability period (Sally *et al* 2018). Over time the net contribution of new LIHTC issuances to the affordable rental stock will, potentially, be substantially reduced by properties existing their extended use period.¹⁰

Location of properties in high land value/demand areas and value for money: Tax credits under LIHTC are issued for construction costs, this does not include the cost of land. However, where projects located in a difficult development area (DDA) or qualified census tract (QCT) the subsidy may be increased by 30%. For instance if the above example was located in a DDA or QCT the stream of credits would be equal to \$1,170,000 (10x (9%x130%) x\$1,000,000). The available subsidy could thus exceed the affordable rental projects eligible cost basis in both nominal and real terms.

DDAs are areas where construction cost, land costs and utility costs are high relative to the local areas' median gross income; QCTs are areas with high poverty rates (at least 25%) or areas where 50% of households have incomes below 60% of the local areas' median income (OCC 2015). Since 2008 specific buildings outside DDAs and QCTs may also be awarded the increased subsidy (OCC 2015). Nevertheless, while these rules do compensate investors for some of the additional land and location related costs, there remains an incentive to minimise their contribution to overall project costs. This has resulted in the LIHTC predominantly delivering multi-family housing with a propensity to be located in lower income areas (QCTs are poverty defined areas). Moreover, while providing affordable rental properties there is virtually no correlation between housing affordability or market tightness measures and LIHTC construction since 1993 (Erikson 2017:79).

One implication of the high level of subsidy is a concern around value for money. A number of studies suggests that relative to the objective of the tax credit – to ease the affordability stress of lower income households – the tax credit is an expensive means of doing so. The argument is that rather than building brand new dwellings for people experiencing housing stress, more households could be assisted with the same cost to the public by topping up households' income to meet their rental expenditure (Olsen 2017). However, the efficacy of alternative approaches is often stressed to be a function of local housing market characteristics or target groups. For

partner(s) (investor or investment fund) according to their ownership share. Investment funds offer investment opportunities in affordable housing projects that are below the equity requirements of individual development projects and so a means of facilitating investment by high-worth individuals.

⁹ <https://www.propertymetrics.com/blog/2017/06/13/a-complete-guide-to-the-low-income-housing-tax-credit-program>

¹⁰ The minimum affordability period for LIHTC properties was increased from 15 to 30 years in 1990 (Eriksen and Lang 2018).

instance, a supply side tax credit is likely to be more effective in areas where the supply of new stock is inelastic and/or vacancy rates are low; or where the objective is to ensure that low-income households gain access to particular (higher cost or lower poverty) locations (Eriksen 2017). However, the evidence also suggests that in such areas a tax subsidy leads to a degree of crowding out of private investment (Jackson 2007). That is, while target specific properties are being supplied the overall supply of dwellings is not necessarily increased.

Following some instances of fraud and collusion, there have also been concerns around incentives to avoid cost escalations. A recent Government Accountability Office (GAO 2018) report found that the *median* per-unit cost across states ranged from \$126,000 to \$326,000, but minimum and maximum allocations ranged from \$104,000 to \$606,000. In some cases the unit subsidy cost exceeded the local price of a median family home (Eriksen and Lang 2018: 4). While the variations are partly explained by variations in tenant characteristics and additional funding sources. One of the GAO's conclusions, nevertheless, was to enhance the collection, verification and standardisation of cost data (GAO 2018: 66).

Finally, claiming tax credits over a 10-year period increases the time-cost of money for both Treasury and investor. Amendments to the claim structure could thus in principle enable more dwelling delivery for the same amount of public spending (Eriksen and Lang 2018).

Insights for the design of an Australian incentive for affordable rental development

- LIHTC has been instrumental incentivising private equity for the development of affordable rental properties. Its structure as a tax credit and administration by the Internal Revenue Service means that it is not subject to annual budget expenditure decisions.
- Investors receive a tax benefit for 10 years, but properties have to remain affordable for at least 30 years.
- Tax credits are typically exchanged for upfront equity injections that reduce the overall borrowing requirement of affordable housing projects.
- There are both supply and demand side incentives for investors to get involved in affordable rental project developments.
- Additional subsidy is available in high cost/difficult to develop areas that partially also compensate the investor for differences in the cost of land.
- Per capita allocations rules, rather than housing market characteristics allocation rules weakens the ability to direct the subsidy to high cost/demand areas.
- Limited cost oversight and standardisation has led to concerns about value for taxpayers' money.
- The subsidy is considered to be more program-effective in areas with inelastic housing supply or low vacancy rates, but also leads to some crowding out in these areas.

Germany

For much of the post-war era Germany has had in place federal financial incentive schemes to support the construction of new dwellings across its social, private rental and owner-occupied sectors (Eichener 2012). Throughout the 2000s these initiatives were gradually dismantled and/or transferred to the states. In 2018 a federal incentive scheme was revived to promote the construction of affordable private rental properties. A similar scheme was (unsuccessfully)

proposed in 2016 to address the impact of high rates of international migration on the availability and affordability of rental dwellings. Before examining the incentive for private investment a brief digression into Germany's social housing sector follows as it involves both private finance and, ultimately, contributes to the stock of private rental.

Compared to many developed countries Germany has a large private rental sector. Security of tenure and general societal acceptance of private rental as a desirable form of tenure are important cultural determinants of this outcome (Kirchner 2007). However, Germany's time-limited social housing stock and, at least historically, favourable tax incentives for investment in private rental housing also contributed to growth and maintenance of the private rental sector.¹¹

Unlike the tradition in many other countries, the German approach to social housing has always been of a time-limited nature. Historically landlords could access bricks and mortar subsidies for up to 80% for site preparation and construction costs (Kirchner 2007), although these have subsequently declined (Haffner, in Clark and Oxley 2017). In return for subsidies landlords were committed to house only eligible tenants (eligible tenants obtained an authorisation certificate); set maximum monthly rent equal to the operational expenditure; and remain at cost-rent for a period defined by negotiation, 45-50 years historically, but now declined to 10-25 years (Kirchner 2007, Haffner in Clark and Oxley 2017). However, once the commitment period expired properties became private rental properties, irrespective whether owned by a public or private entity. While, the transition of time-limited social housing into private rental housing has contributed to the size of the private rental sector in Germany, Kirchner (2007:96) observes that the share of private rental sector would be large also without the transfers that have taken place historically.

Incentivising private capital: the corner stone of the Germany's incentive for incentivising private investment in private rental, not necessarily affordable private rental, was a choice between a degressive depreciation allowance system and a straight-line depreciation structure.

Depreciation allowance serve both economic and public policy purposes. The economic rationale for a depreciation allowance is to accurately determine the income of assets. Costs associated with aging, wear and tear reduce the income generated by assets and can so be deducted from revenue to reduce the resulting tax liability. Straight-line depreciation provides a fixed annual deduction. In Germany this rate is 2% of depreciable construction costs per annum for real estate, the equivalent is 2.5% per annum in Australia.¹² Many countries, including Australia and Germany, use schedules of useful or economic lives to determine what the appropriate rate of deduction is per annum. With technological change in the building and construction industries, for instance the use of pre-fabricated units, modular construction etc, what is considered the useful or economic life of an asset is prone to change. The implied economic life of real estate in Germany and Australia, based on the above straight-line depreciation allowances, are 50 and 40 years respectively.

A degressive depreciation allowance recognises that costs and value related impact of wear and tear and interest payments is likely to be greater in the first years following completion of a new

¹¹ The German definition of social and private housing differs from that in Australia in that all housing in receipt of bricks and mortar subsidies are considered social housing irrespective of ownership of these properties. For instance, properties owned by a municipal company is social as long as it receives a subsidy, but becomes private when the subsidy expires.

¹² Depreciable construction costs exclude, for instance, land costs.

building; similarly, the revenue generating capacity of an investment in rental property increases over time as a function of increases in rents. For instance, in Germany (in 2004) depreciation allowances allowed investors to deduct 4% of costs per annum for the first 10 years, 2.5% per annum for the next 8 years and 1.25% per annum until the end of the assets useful life (50 years) (Haffner *et al* 2009).

The changes in the depreciation rates broadly conform to estimates of life-cycle profitability of investment in rental housing in Germany (Eichener 2012). The lower (than the straight-line) depreciation rate in later years (when the profitability of the investment has increased) also has the effect of increasing tax receipts in later years. Thus, in part, the degressive system is one of postponing the tax liability of investment to more appropriately reflect the profitability profile of investments. From 1996 to 2006 a series of tax reforms gradually flattened Germany's degressive depreciation structure.¹³ From 2006 onwards investors have only had recourse to the straight-line depreciation structure (Eichener 2012).

In addition to its economic role depreciation allowances are a means of incentivising capital formation. The economic rationale for a depreciation allowances is centred on the accurate estimation of income, it thus (aims to be) neutral with respect to what kind of investment takes place. However, given its impact on income accounting and firm's tax liability, changes in the depreciation allowance also has the effect of favouring one type of investment over another. Thus from a public policy perspective increasing the depreciation allowance of one type of real estate relative to another has the potential effect of making one type of real estate investment more attractive than another.

Changes to depreciation allowances are thus across a number of countries used as a substitute and/or complement to tax credits to favour investment in 'socially desirable' forms of capital formation (such as real estate). The effectiveness of a depreciation allowance is, however, premised on how responsive the tax liability of a firm is to changes in this allowance. For instance, the favourable tax treatment of charities and NfPs in Australia and the USA reduce the financial benefit of this type of incentive. In both of these countries the depreciation allowance associated with investment in affordable housing is passed on to equity partners through limited partnerships, limited liability companies or special purpose vehicles (SPV).

In October 2018 the German government revived elements of the degressive depreciation system to incentivise affordable private rental. This was part of a suite of housing policy announcements to address a housing shortage and increasing rents (DB 2018). The objective of the policy is to incentivise 1.5 million new rental and owner occupied dwellings. Unlike the previous degressive system, the current act specifically seeks to incentivise affordable private rental.

- Investors can claim an accelerated depreciation allowance (ADA) of 5% per annum for four years, in addition to the standard straight-line depreciation allowance. Thus over the first 4 years of the project investors can claim depreciation costs equivalent to 28% of construction costs.
- To incentivise timely implementation the ADA is only available to projects seeking building permission between September 2018 and end 2021. To ensure that new build is then delivered by 2023 investors will no longer be able to claim the ADA after 2026. More

¹³ From 7% to 5% in 1996 and from 5% to 4% in 2004 (Eichener 2012).

generally, the time-limited nature of the incentive is in line with German market intervention principles where state intervention is intended to correct, rather than permanently substitute, for the functioning of the market (Haffner *et al* 2009).

- To incentivise affordable rental properties the claimable ADA is capped at €2,000 per m² (construction and acquisition costs, excluding land), provided total construction and acquisition costs do not exceed €3,000 per square meter. Properties must have a minimum living space of 23 square meter, and be suitable for independent living (own kitchen, bathroom and toilet). There is no rent ceiling or threshold, the incentive thus envisages that a supply effect will limit developer price setting.¹⁴
- The ADA is claimable for new build and conversion of existing buildings into affordable rental properties.

Length of affordability period: Subsidised properties have to be rented for a period of 10 years to avoid clawback of the tax alleviation. There is, however, no rent ceiling or explicit definition of what constitutes affordable. The inclusion of a rent ceiling was discussed and rejected. There is in principle little to stop developers charging an unaffordable rent for newly developed properties. Although the legislation envisages that the claimable and total construction and acquisition costs ceilings will result in properties of moderate standard, there are parts of Germany where properties of moderate standards also remain unaffordable to low and moderate-income households. Instead, the incentives envisages that a supply effect will limit developer price setting (DB 2018).

Location of properties in high land value/demand areas and value for money: The exclusion of land cost from the accelerated depreciation allowance reduces the incentive for new build in high land value/ demand areas. Land values and acquisition costs in inner city locations are, as is typical in Australia, often higher and there is considerable variation in construction costs across Germany, from approximately €1,300 (Niedersachsen) to €2,000 (Bavaria). A critique of the ADA is therefore that it is likely to be less effective in areas experiencing demand growth and, potentially, incentivise higher value properties in low demand areas (Michelsen 2018).

The key provision in the legislation to cater for additional affordable rental properties in higher demand areas is the applicability of the ADA for conversion of existing property into affordable rental (DB 2018).

Provisions are also made for the evaluation of the incentive. The legislation is clear about the (rather simplistic) objective – incentivise the construction of an additional 1.5 million rental and owner occupied dwellings (DB 2018). It is suggested that the comparison of ADA case numbers in relation to historic building activity at regional level will provide evidence of any additional

¹⁴ Using a direct grant system, rather than tax credits or preferential depreciation allowances, Norway too has design regulations in place to limit the market value of supported properties. Grants are available for new construction, purchase of existing properties and rehabilitation/ redevelopment of properties for affordable renting (Husbanken 2018). Grants are provided on per square meter primary living basis, where primary refers to specific elements of dwellings such a bedrooms, hallways etc. Maximum size (80 square meter) and grant regulations are in place to incentivise affordability. Grant regulations further vary by geography. For instance, the 2018 grant level per square meter in Oslo is Norwegian Kroner (NOK) 17,200, NOK 10,500 in Bergen and NOK 6,000 in non-urban or smaller urban areas (Husbanken 2018). Variations in grant levels reflect variation in housing market conditions. Properties receiving grants are subject to a service agreement between the owner and the local authority or a public health authority. The public agency obtains the exclusive nomination rights for 30 years. Grants are written off at a rate of 3.3% per annum. Grants are clawed back at the same rate where properties are found not to conform to affordability criteria, stipulations in the service agreement or Norwegian law. For instance, if the property is sold or rented at commercial rates after 10 years the owner is liable for the return of 66% of the grant.

building activity (DB 2018). A concern is, however, that it is land restrictions in inner city locations that hinder increases in building activity in some high demand/land value areas, rather than the availability of finance or willing investors (Michelsen 2018).

Insights for the design of an Australian incentive for affordable rental development include:

- Depreciation allowances fulfil both economic (measurement of income) and public policy objectives (preferential treatment for desired outcomes). The historic growth of Germany's private rental sector was, in part, a function of attractive tax treatment.
- A degressive depreciation allowance can be aligned with the profitability trajectory of real estate investment and so increase the investment attractiveness for investors, but also offset foregone tax revenues by shifting the tax profile.
- Compared to a tax credit system a depreciation allowance does not provide the same dollar-for-dollar incentive to investors. The value of the incentive is thus partly a function of a business' own expenditure profile and economies of scale.
- Restrictions on claim periods can reduce implementation and delivery time.
- A time-limited affordability period (or use) can provide an incentive for investors to reduce potential quality gaps between affordable products and market products. Restrictions on qualifying construction and acquisition cost levels can provide additional insurance against gold plating.
- Flat-rate upper thresholds and subsidy levels provide less incentive for investors to develop affordable rental properties in high demand/land value areas.

Section 3 – Blueprint for Affordable Housing Infrastructure Booster

NRAS provided an important innovation in the Australian affordable housing policy space. It provided a vehicle for leveraging private investment and capital into the provision of affordable rental housing and initiated considerable learning and capacity evolution amongst investors, not for profit and for profit housing providers. This provides an important platform from which to develop the Affordable Housing Infrastructure Booster. A key lesson from NRAS, and international experience, is that any policy of this type will require ongoing, ideally permanent, political support and leadership (Rowley et al 2016).

Affordable housing is increasingly recognised as part of the infrastructure that underpin urban productivity and liveability and the ability to meet future population growth and social justice objectives (Maclennan *et al* 2015, IA 2016). However, the levers – financial and policy – to support an affordable housing infrastructure plan are fragmented and small scale. Moreover, housing policy development is a multi-stakeholder process that requires state and local government involvement, as well as housing developers and operators and finance.

AHIB is explicitly based on a recognition that the Commonwealth also is a partner in this process. AHIB is thus not intended as a substitute for state and local government policy, but a compliment – a booster – to enhance and unlock the provision of affordable rental housing. Existing Commonwealth initiatives, such as NHFIC's Affordable Housing Bond Aggregator, National Housing Infrastructure Fund or the Commonwealth Rent Assistance, and State level policies, e.g. SAFH and SHGF, should work in conjunction with AHIB. Similarly, AHIB should complement and enable planning policies and reforms, such as inclusionary zoning and density bonuses. A strength of NRAS was the ability to combine with subsidies and support from multiple sources (Rowley *et al* 2016, Randolph *et al* 2018).

Principle 1: AHIB should complement existing and emerging initiatives in order to reflect the joint interests that levels of government, private/NfP sectors and investors may have in promoting affordable rental housing. For this reason, it does not seek to address the entire (gross) funding gap in affordable housing provision in isolation.

AHIB also recognises that housing markets economically and financially are complex and that any Commonwealth, State or Local government policy intended to address affordable rental provision suffers from inadequate access to information about precisely what incentive is required to overcome the financing gap in affordable (and social) housing in order to unlock new supply. For instance, while the AHWG (2016:14) identifies a general financing gap of 35% for the provision of affordable rental housing, this gap will vary across housing typology, land costs and local rental levels. It also varies by access to additional forms of support and the cost of finance.

Table 1 illustrate the impact of variations in land and construction costs as well as rental levels on the financing gap, subsidy requirements and profitability. The modelling is based on a build-to-rent model where the gross financing gap is the residual of project costs that are not financed from expected rental income and applicable NHFIC prudential standards and the net financing gap is the remainder after additional equity injections and impact of other policy instruments are accounted for.

As a starting point the illustrations in Table 1 apply the AHIB methodology to the *gross* financing gap. In practice, and in keeping with Principle 1, the actual boost provided would be based on

the *net* financing gap. That is, the financing gap that remains after other equity investment (including land) and policy initiatives are accounted for. Variation in the assumptions are discussed below and illustrated in Appendix 1.

Borrowing requirements are financed via NHFIC's bond aggregator and topped up with mezzanine loans where necessary. In Table 1 housing output is fixed with financing gap, subsidy requirement, disposals and profitability adjusting to variation in area specific land and rental values. Land and rental values are based on representative Melbourne and Sydney low, medium and high values. Construction cost varies by housing typology.

Table 1 Adjustable annual booster: variations across low-high land and rent areas over 20 years

	Low land/ low rent	Medium land/ medium rent	High land/ high rent
Project cost	\$32.4mIn	\$38.1mIn	\$48.4mIn
Gross financing gap	49%	39%	35%
Project boost (where credits traded for equity)	\$15.7mIn	\$15.0mIn	\$16.9mIn
Average annual tax credit	\$19,800	\$18,900	\$21,300
Tax credit as a share of rent rebate, total per dwelling	173%	130%	116%
Annual boost as % of project cost (100 properties)	6.1%	5.0%	4.4%
Stock remaining after debt settlement	77%	74%	73%
NPV Operating cash flow	17%	13%	10%
Meets NHCIF ICR requirement	Yes	Yes	Yes

Assumptions: Development of 60 1-bdr, 30 2-bdr and 10 3-bdr dwellings in a low-rise style. Construction costs assumed the same in each locality. Drawing on NHFIC funding for loan-to-value ratios below 50% and with an interest coverage ratio of at least 1.25. Financing cost at 3.99% NHFIC and 7% for any mezzanine/additional borrowing requirements. Land values and construction costs are Melbourne and Sydney averages. Rental levels are based on 74.99% of median rents in Melbourne (June) and Sydney (September). **No assumption is made that discounted median rent levels are affordable to low and moderate income households at conventional (30%) standards.** Subsidy structured as a 10-year tax credit discounted (5%) to the present value of the financing gap. Rent inflation assumed at 2.5% per annum, CPI at 2% per annum, annual property value increase 2.2% and discount rate for NPV 5%. Disposal value in medium and high rent areas assumed to be 10% and 20% higher than in low rent areas.

Source: Land values and construction costs are sourced from Lawson *et al* (2018). Melbourne and Sydney rents are sourced from DHHS (2018) and FACS (2018), respectively.

Table 1 highlights a number of important lessons for developing AHIB. Firstly, the financing gap is sensitive to variation in rental levels. Lower local rents reduces the ability to service borrowing costs. Moreover, lower rents are associated with a higher ratio of tax credits to obtained rent rebates for low and moderate-income households Secondly, higher annual tax credit boosts do not necessarily imply deeper proportional support or higher levels of profitability/cash generation. Requirements to address the funding gap and boost project viability will vary from project to project. Thirdly, rules around disposal of properties can reduce the financing gap further, but is contingent on local housing market characteristics.

Profitability for investors and the cost to the public sector thus varies across space. The scenarios in Table 1 likely exacerbate this variability (for instance, they are based on a 20% discount of representative median rents rather than rents affordable to low and/or moderate income households), but nevertheless serve to illustrate that, precisely what incentive is required

to unlock each project is not straight forward and requires significant project specific inputs. Managing such a process may be time consuming and informationally sensitive.

Variation 1 – additional equity injection: In keeping with Principle 1 AHIB intends to compliment other public and private sector mechanisms of delivering affordable housing. It provides a boost to ensure financial viability. In practice, therefore, the level of tax credits provided would be lower than those illustrated in Table 1. Table A1 (Appendix 1) illustrate the impact on the tax credit level where land is leased from the public sector at a nominal cost of \$1 reducing the land acquisition and site preparation costs by 75%. The average annual tax credit (cost to public sector) declines substantially, particularly in areas with higher land cost and rent levels (note caveat to Table 1 about affordability assumptions). In the medium land cost/medium rent scenario the average annual tax credit to the investor declines from \$18,900 to \$10,000. The results in Table A1 are produced to replicate the financial outcomes in Table 1 (which differ across the scenarios); as with Table 1 the required boost is highly sensitive to variation in rental levels and land costs. In Table A2 the low and high land/rent scenarios are further adjusted to replicate the medium land/rent scenarios projects' cash flow value after 20 years. This reduces the tax credits (and boost) provided to the low land/rent scenario and increases the tax credit to the high land/rent scenario.

Importantly, operating AHIB on a net financing gap basis also has the potential to reduce the total foregone public revenue (tax credits) below the total rent rebate achieved for low and moderate-income households. This is illustrated in the medium and high land/rent scenarios. In the low land/rent scenario the ratio of tax credits to rent rebate is substantially reduced to 1.26:1.

The key point illustrated by the scenarios in Table A1 and A2 is that a public policy intended to incentivise institutional and private sectors investment (in affordable housing) across a range of housing market and state/local government contexts needs to adapt to project specific inputs and financial outcomes. This is best achieved by asking developers/investors to tender for the required boost, rather than a priori determining levels of support.

Variation 2 – flat rate incentive: A flat rate form of incentive eases the informational requirements and could, in principle, allow the remaining actors to adjust to given levels. However, a flat rate incentive makes it more difficult to address variation in land costs, rental levels, and project specific inputs/financial outcomes. Table A3 illustrates the outcomes of a fixed annual tax credit (\$15,000) for 10 years, provided as an upfront equity investment. As in the other scenarios, the tax credit received by investors is adjusted for the time value of money over 10 years. Under this policy the low and medium land/rent scenarios meet prudential lending standards, but the high land/rent scenario does not. Conversely, if the policy is a fixed proportion (35%) of project costs then the low land/rent scenario no longer meets prudential lending standards, whereas the medium and high land/rent scenarios do – but with varying financial outcomes (Table A4).

If applying the fixed rate \$15,000 annual tax credit for 10 years as an operational subsidy the borrowing requirements of the affordable housing project increases substantially. Without any other form of equity injection the financing requirement increases to some 95-100%, depending somewhat on type of housing provider. On a like for like basis (with the here modelled scenarios) such an approach would no longer meet prudential lending standards associated with NHFIC for any of the land/rent scenarios. This is consistent with Lawson et al's (2018) work showing that upfront capital contributions generate better outcomes than operational subsidies.

The key point illustrated by the scenarios in Table A3 and A4 is that flat rate incentives struggle to equalise variation in investment attractiveness generated by differences in local housing market and policy contexts. Because of differences in financial outcomes, the reliance on additional forms of project support (including public policy, additional equity, and stock sale) will differ across the projects.

Principle 2: AHIB should aim to boost the development viability of affordable housing projects that would otherwise not take place. Since what is required for each project to be viable is a function of multiple factors (including land, local rents, finance, additional support and the internal economies of firms and partnerships), the boost provided should be responsive to how these factors affect project bottom lines. AHIB is therefore geared to boost the project specific financial characteristics against prudential lending and return standards for each affordable housing project, but also setting thresholds, related to the net financing gap, for assessing tax credit tenders.

A key issue for public policy to consider is the targeting (or identification) of projects to be boosted. The scenarios illustrated above – both the adjustable and fixed rate approached – display variation in project outcomes. Moreover, one of the lessons from LITHC is that even complicated (flat-rate approaches) such as the 30% and 70% subsidies levels can incentivise questionable (rent seeking) outcome that reduces the efficacy of the policy in terms of boosting the supply of affordable housing.

This is illustrated in Figure 1, which shows a market for affordable housing capital and resulting housing (quantity) output. The demand curve for affordable housing capital slopes downward (the higher the price of affordable housing capital, the lower the demand) and is the marginal product of capital, i.e. in this case the additional income generated by an increase in affordable housing. The supply curve is the marginal cost of capital, or the user cost of capital. Where the cost of capital (supply) is greater than the marginal product of capital (demand) the income produced would be insufficient to pay the interest (cost of capital) for the additional stock (this is the financing gap). The intersection of marginal cost of capital and marginal product also determine the rental levels required to service the cost of developing an affordable rental housing project. A subsidy, or equity injection, reduces the cost of capital by reducing the borrowing requirement. The efficacy of the policy, however, depends on how well it is targeted (Jackson 2007).

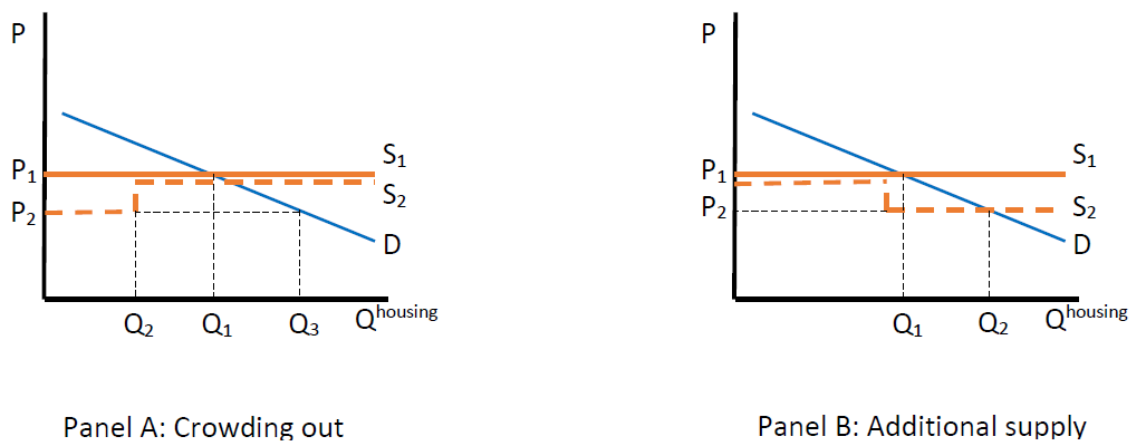
Panel A illustrates that inappropriately designed or targeted public incentives have limited longer-term affordability impacts. In Panel A, the public subsidy is allocated to projects that likely would be delivered anyway, a crowding out effect takes place. The resulting dwellings can be made available to lower income households for the prescribed period, but the new supply has little impact on the affordability levels in the longer term. There is no additional supply and developers can revert to market pricing.

In Panel B the incentive is allocated to marginal projects – that is projects that without the availability of a booster would not be supplied on terms that are attractive to investors (they would have other more attractive investment alternatives). The practical issue in Panel B is how

to design a policy that aims to avoid a Panel A outcome and incentivise (more of a) Panel B outcome?

As illustrated in Table 1, project profitability outcomes differ spatially. One option is to provide a flat rate incentive – this will in some cases sufficiently address the funding and so allow developments to go ahead. In other cases the flat rate will be too low or too generous, resulting in no construction (or need for additional incentives) or rent seeking. Differentiated rates, say by geography, will address broad variations in these outcomes, but not locality or project specific variations in these outcomes.

Figure 1 Impact of public policy on provision (quantity) of affordable rental housing



Note: Figure 1 illustrates the market for affordable housing capital and resulting housing (quantity) output. The demand curve is the marginal product of capital; the supply curve is the marginal cost of capital. A subsidy reduces the marginal cost of capital. In Panel A a fixed subsidy is allocated to new developments in the inframarginal range. Q2 properties are affordable for a period, but no longer-term or overall market effect. To achieve an increase in supply to Q3 the subsidy would need to be allocated to all new developments, including rent seeking development. In Panel B the subsidy is allocated to marginal new developments – where the cost of capital without a subsidy makes the project financially non-viable. Here Q2-Q1 additional properties become financially viable.

Source: Jackson (2007).

To mitigate these effects AHIB employs a number of measures. Firstly, to identify the required boost to achieve project viability AHIB works by inviting developers (or development partnerships) to tender for the necessary tax credits to achieve viability and acceptable rates of returns for investors. One objective of AHIB is thus to increase the supply of affordable housing by boosting the developmental viability of marginal projects.¹⁵ Secondly, tax credit tenders are assessed against the net financing gap. This is intended to incentivise collaborative approaches to project development and mitigate crowding out of state initiatives or private sector innovation. Thirdly, tax credit tenders are assessed against marginality thresholds, the upper levels of support beyond which a project would no longer be considered marginal to development. Additional work is required to establish the relevant thresholds (which are likely to vary across states and housing market contexts). This task could be carried out by an independent body, a national public body or the state level administrative body for AHIB.

¹⁵ It is acknowledged that allocation of support to marginal projects is not only related to identification of project specific information, but (perhaps just as much) also to implementation and administrator's perception of likelihood of success.

Principle 3: Competition for tax credits is necessary to ensure value for public money, incentivise multi-stakeholder cooperation and enable refinement of public policy over time.

It is envisaged that AHIB will take a number of years to embed itself; developers and investors will need time to establish partnerships, identify potential sites and engage with the different levels of government. The size of AHIB should therefore increase incrementally. For instance, Table 1 and AHWG suggests that the funding gap for affordable housing ranges from 30-50% in many cases. Taking these estimates as a starting point the total sum of tax credits that developers can tender for can be derived by specifying affordable housing supply targets.

Importantly, while initial marginality thresholds will be based on available housing and finance inputs, future thresholds can be derived from accumulated information through the tendering process. That is, AHIB will enable the collection of locality specific cost and development information over time. These in turn can assist the identification of the responsiveness of affordable housing supply to levels of support in different localities and so assist in ensuring value for public money. To achieve this a degree of competition is necessary. AHIB should therefore commence conservatively and be scaled up over time. If the initial supply targets (credit pool) is too ambitious and the number of tenderers is low then the competitive processes that enable identification of marginality thresholds will be weakened. The sum of tax credits might therefore be adjusted/confirmed after an expression of interest round and tailored to induce competition. At the same time an anticipated growth trajectory can be established.

Box 1 in the executive summary converts the 3 principles into a step-by-step summary of how the AHIB process works.

Note on direct and indirect forms of capital (equity) injections

AHIB is based on a tax credit system that seeks to incentivise institutional and private sector investment in affordable housing. Like the LIHTC in the USA it provides an indirect vehicle for channelling upfront equity injections into affordable housing.

A tax credit means that there is no direct public expenditure (capital grant) associated with AHIB and no direct competition between expenditure on affordable housing and other forms of public expenditure. In the current Commonwealth public finance environment there is also no (direct) additional borrowing associated with AHIB.

However, AHIB does, as was the case with NRAS and is the case with LIHTC, introduce a 'middle man' in the provision of affordable housing. Lawyers, accountants, consultants etc engaged in the process of converting tax credits into equity generate an additional cost layer that, potentially, increases the cost to the public purse relative to a system of direct capital grant. As proposed AHIB accounts for some of these costs through the time value adjustment of tax credits over time, but it cannot be guaranteed that costs are fully offset. If not fully offset the result may be a reduction in the equity injection obtained by developers.

Incentivising institutional investment in affordable housing (and housing more generally) is, however, a longer-term ambition in Australian public policy that may generate additional benefits in terms of scale, assets and risk management.

Eligibility

The focus of AHIB is on housing outcomes rather than mode of ownership or governance and should therefore be accessible to not-for-profits and for profits alike. Additional criteria around disposal of properties can provide additional return on public investment.

Properties must be let to low and moderate income household at rents that are at least 20% below local rents, for a minimum period of 20 years. As an alternative, a period equivalent to the longer of the tax credit period and any other preferential loan arrangements (such as NHFIC's AHBA) could be used to determine the affordability tie in period.

- To avoid some of the controversy around NRAS tenant eligibility criteria beyond income levels may be advisable. For instance, the Senate's Economics Reference Committee (ECR 2015: xxxi) recommended Queensland's NRAS policy as a model for additional control over access, including residency status. Additional eligibility criteria, however, are, in many cases, a matter of political expediency rather than fundamental housing market considerations.
- Thresholds for what constitutes low and moderate income households should vary by states and capital city/balance of state and could follow standards such as those already applied in some states: equivalised low income (50-80% of median income); equivalised moderate income (80-120% of median income).
- There should be no compulsion for tenants to leave AHIB properties if their income begins to exceed eligibility criteria. AHIB is intended as a vehicle to boost affordable housing infrastructure, not individual households. Therefore, the project itself is required to meet income eligibility criteria over time, rather than the individuals within them. To meet project income-eligibility criteria, income is calculated as an average across all tenants. The average income profile of tenants must thus meet the low and moderate income requirement. This may also lead to a greater mix of tenants over time, with higher income tenants making way for low, potentially very low, income tenants.
- Tenant incomes may be the product of earnings, or benefits + commonwealth rent assistance.
 - Rents upon occupancy must be set at least 20% below local reference rents.
 - Annual rent reviews should take place to adjust for general changes in wages and income.

Development projects need to conform to (local) marginal-development thresholds (see below).

- To facilitate scale and reduce administrative costs a minimum number of dwellings per project should be imposed. Investors identified scale of operations as a co-determinant of ongoing innovation (Milligan *et al* 2013).

It is advisable that the state level administering body maintains an affordable housing register to facilitate access to AHIB properties, potentially other affordable housing options, and maintain transparency of access.

Financial structure

AHIB provides a flexible 10-year tax credit that should work in conjunction with other measures, such as NHFIC, state planning and land use policies, and the National Housing and Homelessness Agreement.

Tax credit/cash payment is set as a function of the project specific net financing gap and marginality criteria. The tax credit should be adjusted for the Treasury-set time-value of money to incentivise funding for equity investment and mitigate shrinking of project equity injections.

- The 10-year tax credit could be made claimable over 15 years in order to allow investors to maximise value of credit against expected future tax liabilities. Credit could also be claimable over less than 10 years at investors' request. This would generate a saving to the public. Credits claimed over more than 10 years should, however, come at no additional time-value adjustment.
 - Additional flexibility can be ensured through direct and syndicated forms of investor participation.
 - To reduce investor risk premiums further AHIB should be tradeable. Trade in tax credits must, however, to be appropriately monitored to ensure continued compliance with AHIB objectives and enable clawback of credits where conditions are found not to be met.
- A flexible claim period can also be used as a means of incentivising timely deliver. Under the German ADA system there is a final year that the depreciation allowance can be claimed. A similar approach under AHIB would mean that successful tenderers would be given a final year for claiming tax credits that reflect the initial intended delivery date, plus 15 years. Delays in delivery would this reduce investors' flexibility.

AHIB is responsive to variation in land values, construction costs, rental values and access to additional means of financing new affordable housing supply. By tendering for tax credits on a project basis AHIB would be responsive to variation in housing typology and so more effectively align with housing needs and housing supply requirements. ***Rather than the financial incentive conditioning the type of housing provided, the type of housing provided would condition the required affordability booster.***

- Tax credit tenders should be assessed on a net financing gap basis in order to incentivise multi-stakeholder collaboration and avoid crowding out of other public or private initiatives. Marginality thresholds (upper level at which a project is deemed supportable by the Booster) and value for money indicators should further determine evaluation of bids.
- Marginal thresholds can be calculated as the per cent of total project cost or construction costs. The latter is the approach taken in the USA and Germany. However, neither of these approaches are effective in directing investment to higher land value/rental areas as the value of tax incentives are greater in lower land cost areas. The AHIB methodology can be applied to either approach. It is, however, recommended that thresholds are related to total project costs to better address variation in land values and incentivise use of land related planning and policy tools.
- Benchmarks for what is considered a marginal development project should be set relative to prudential lending criteria and acceptable investment returns. The benchmark

can also be set relative to different localities/housing market context to incentivise development in priority areas.

- Benchmarks should be in place for maximum construction cost per unit type or square meters to ensure value for money; and for design and environmental performance. New properties will often trade at a local rent premium so that at 20% discount on a new property may still imply a higher rent than a 20% discount on an existing property. Construction costs standards, as applied in Germany and Norway, can be used to regulate the equivalent market rent of new supply and so affordability (to low and moderate income households) of new properties.
- Marginality benchmarks should be updated at regular intervals in response to market changes (monetary policy) and economies of scale/learning in the delivery of affordable housing. The tender process itself would be instrumental in providing information for this process.
- An independent body, a national public body or the state level administrative body could carry out determination of relevant marginality benchmarks for AHIB.

AHIB can also be made responsive to variation in income levels. For instance, separate marginality thresholds can be set for projects with rental levels that are more than 20% below local rents. In an establishment phase it would, however, be advisable to keep broad rules to ease the procedural and evaluation processes.

Allocation

The overall pool of tax credit for tender should be set by the Commonwealth and allocated to the states on either a current per capita basis (or a projected per capita basis) or on a current housing needs basis (or a projected needs basis). A small number of additional allocation rules could be set at Commonwealth level, such as at least 20% below market rent for 20 years, but to work in conjunction with local and state priorities additional priority rules should be set by the states.

A lesson from the literature is that supply side measures may be particularly relevant where supply elasticities and vacancy rates are low, or where the objective is to generate housing in specific higher cost areas. An additional Commonwealth requirement may therefore be that states identify priority areas/geographic zones of particular housing need, based on tight housing market indicators.

- Variability in the marginal benchmark criteria provide additional support for affordable housing supply in areas with high demand, low supply elasticity.
- To conform to its role as an infrastructure booster, areas/geographic zones could be related to travel to work areas.
- Projects proposals within priority areas/geographic zones would provide higher value for money outcome than project proposals outside.

States may set additional allocation priorities, but these should be general in nature and relate to state, metropolitan or local government specific planning policies.

- A public agency, or the outsourcing of this task to the academic/private sector, should have the responsibility for establishing affordable housing supply needs across priority areas/geographic zones in each states and Territory.

Administration

Affordable housing is increasingly recognised as an infrastructural requirement for the productivity of Australian cities and the ability to preserve/enhance social cohesion in growing cities and towns. Administration of AHIB should reflect this function. The Infrastructure Australia Act 2008 could be appropriately amended to include affordable housing as a specific priority area or a new national housing supply council could be provided a remit for (also) establishing housing market criteria and indicators; and set Commonwealth priority rules.

As the AHIB is intended as a booster for projects that, in some cases, may involve finance through NHFIC it would not be appropriate for NHFIC to be the administrative body for AHIB. NHFIC conducts due diligence in terms of issuing loans, grants and long-term finance for local governments and community housing providers, whereas AHIB should be provider neutral and focus on housing outcomes.

- A steering group of experts including representatives from finance, construction and housing management should oversee implementation of AHIB.

The Commonwealth administering body would have responsibility for:

- Monitor State's allocation of funds in accordance with marginality thresholds and priority areas/geographic zones.
- Manage the scaling up process of AHIB.
- Conduct reviews and analysis of AHIB, and propose amendments to the functioning of AHIB.

It would be advisable to avoid multiple reporting/monitoring structures for individual affordable housing projects/developments.

Under NRAS states applied different priority criteria (see Rowley *et al* 2015, Table 5A) and it is suggested that AHIB follows a similar approach.

- While variation across states increases the complexity for developers and financiers, particularly those operating in multiple states, many affordable housing projects will require additional State finance, equity or planning support to reach marginality thresholds. In a federal structure where land use planning constitutionally is the responsibility of the states, and local government develop strategic plans for municipal development and administration of planning instruments, it would be appropriate to include State level priorities. In the USA Qualified Allocation Plans set out state level priorities for guiding the allocation of LIHTCs. While no similar requirement is suggested here, beyond the priority area/geographic zone, priority criteria should nevertheless be publicly available, clear and measurable.

Some states already have independent statutory infrastructure agencies. This could be replicated in other states and territories with an additional remit to administer AHIB at state level. This agency would similarly report to the Commonwealth level agency on compliance with thresholds and housing market characteristics. The primary project monitoring/reporting objective at State level should be kept simple and reflect accountability for public funds, rather than wider social and economic objectives. In particular State level monitoring should focus on:

- Cost characteristics of new supply at project level.
- Adherence with tenant eligibility criteria at project level.

Construction finance, reporting and monitoring requires specialist staff. Evaluation of bids for tax credits should include specialists from the finance and construction industries.

- Similarly, the detailed development of the Affordable Housing Infrastructure Booster should include investors as well as specialists from finance and construction to ensure that AHIB provides the appropriate incentives for large institutional investors.

Non-compliance with cost characteristics, affordable rent standards and tenant eligibility criteria (subject to variation as per Eligibility section above) should result in credit claw-back or, if relevant, risk mitigation procedures such as mergers.

- Where tax credits are generated by developers but used by investors, investors will be required to form equity partnerships with developers and join the ownership of the affordable housing project. Partnerships facilitate claw-back where projects do not meet compliance criteria. Investors are required to remain partners in the affordable housing project for the entire period over which tax credits are claimed, also where these have been sold to a third party.
- Tax credits only become claimable after the affordable housing project is built and has achieved an agreed occupancy level.

NRAS provided a number of important lessons in terms of the requirement for administrative capacity, competencies and stability (ANAO 2015). AHIB is intended as an ongoing and long-term public policy to boost the provision of affordable rental property. Sufficient time and resources to develop the administrative design, development necessary supporting legislation and human resources at Commonwealth and State level is essential. A measured build-up of the tax credit pool is important to facilitate competition. A risk-based approach to compliance and the integration of risk management into design, governance, planning and administration are important transferrable lessons from NRAS.

Regulation

Standardisation of the regulatory framework in the UK was instrumental in leveraging private finance for large scale voluntary stock transfers in the UK (Gibb and Nygaard 2006).

Standardisation and clear risk management and mitigation processes reduces the transaction costs and, where effective, can contribute to reducing the cost of finance.

In Australia, for-profit organisations are typically regulated by the Australian Securities and Investment Commission (ASIC), whereas not-for-profit organisations are regulated under the National Regulatory System for Community Housing. Incentivising large-scale institutional investment into affordable housing will, however, require a unified and appropriate regulatory framework.

- Managers of all AHIB supported properties must be registered in either NRSCH or a state based scheme.

This framework should focus on the elements that affect investors' risk premium, i.e. asset management, governance, probity, operational management and financial viability. Moreover,

clear regulation around risk mitigation strategies, for instance, regulatory imposed mergers, should be identified.

Value for money

AHIB is designed to generate competition for tax credits. For a given level of available tax credits AHIB should, over time, support a larger number of affordable properties.

By reducing the borrowing and financing cost of affordable housing supply a smaller proportion of housing disposals is required to settle remaining debt after 20 years. A value for money criteria should therefore be the proportion of stock that remains as, potentially, affordable housing at the end of the affordability period. There should not be explicit criteria for keeping properties affordable in perpetuity – housing market context and housing needs may change over time – but State level priority criteria could include stipulations for disposal strategies.

Operating AHIB on a net financing gap basis provides additional options to manage the ratio of tax credits to obtained rent rebates as a criteria for value for money.

The impact of AHIB supported housing developments on housing market characteristics should be continuously monitored and evaluated to assess the degree to which AHIB does boost the viability of marginal projects and so the increase in supply of affordable housing.

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For information on NSW AHSEPP: <https://www.planning.nsw.gov.au/affordablehousing>

For information on VIC SHGF: <https://www.dhhs.vic.gov.au/victorian-social-housing-growth-fund>

For information on VIC Building Financial Capacity of Housing Agencies: <https://www.vic.gov.au/affordablehousing/social-housing/community-housing-sector-investment.html>

For information on Australian Government Debt to GDP: <https://tradingeconomics.com/australia/government-debt-to-gdp>

For information on Australian Budget deficit: <https://tradingeconomics.com/australia/government-budget>

Appendix 1

Table A1 Additional equity injection: variations across low-high land and rent areas over 20 years

	Low land/ low rent	Medium land/ medium rent	High land/ high rent
Project cost	\$32.4mIn	\$38.1mIn	\$48.4mIn
Net financing gap	42%	27%	12%
Project boost (where credit is traded for equity)	\$11.5mIn	\$7.9mIn	\$3.9mIn
Average annual tax credit	\$14,500	\$10,000	\$4,900
Tax credit as a share of rent rebate, total per dwelling	126%	69%	27%
Average annual tax credit as % of project cost (100 properties)	5.2%	3.4%	1.5%
Stock remaining after debt settlement	77%	77%	76%
NPV Operating cash flow	17%	13%	10%
Meets NHCIF ICR requirement	Yes	Yes	Yes

Assumptions: Development of 60 1-bdr, 30 2-bdr and 10 3-bdr dwellings in a low-rise style. Construction costs assumed the same in each locality. Drawing on NHFIC funding for loan-to-value ratios below 50% and with an interest coverage ratio of at least 1.25. Financing cost at 3.99% NHFIC and 7% for any mezzanine/additional borrowing requirements. Land values and construction costs are Melbourne and Sydney averages. Rental levels are based on 74.99% of median rents in Melbourne (June) and Sydney (September). Subsidy structured as a 10-year tax credit discounted (5%) to the present value of the financing gap. Rent inflation assumed at 2.5% per annum, CPI at 2% per annum, annual property value increase 2.2% and discount rate for NPV 5%. Annual subsidy index at 5% per annum. Disposal value assumed in medium and high rent areas assumed to be 10% and 20% higher than in low rent areas.

Source: Land values and construction costs are sourced from Lawson *et al* (2018). Melbourne and Sydney rents are sourced from DHHS (2018) and FACS (2018), respectively.

Note 1: ICR outcomes in final row additionally constrained to replicate outcome in Table 1. Financing cost carried by rental income thus higher in Table 1 than in Table A1.

Note 2: The results in Table A1 are produced to replicate the financial outcomes in Table 1 (which differ across the scenarios); as with Table 1 the required boost is highly sensitive to variation in rental levels and land costs.

Table A2 Additional equity injection: variations across low-high land and rent areas over 20 years with equalised NPV cash flow outcomes

	Low land/ low rent	Medium land/ medium rent	High land/ high rent
Project cost	\$32.4mIn	\$38.1mIn	\$48.4mIn
Net financing gap	39%	27%	15%
Project boost (where credit is traded for equity)	\$10.7mIn	\$7.9mIn	\$4.8mIn
Average annual tax credit	\$13,500	\$10,000	\$6,100
Tax credit as a share of rent rebate, total per dwelling	118%	69%	32%
Average annual tax credit as % of project cost (100 properties)	4.9%	3.4%	1.9%
Stock remaining after debt settlement	76%	77%	77%
NPV Operating cash flow	13%	13%	13%
Meets NHCIF ICR requirement	Yes	Yes	Yes

Assumptions: See Table A1.

Source: See Table A1.

Note: The net financing gap adjusts when project cash flow outcomes are equalised.

Table A3 Fixed annual booster: variations across low-high land and rent areas over 20 years

	Low land/ low rent	Medium land/ medium rent	High land/ high rent
Project cost	\$32.4mln	\$38.1mln	\$48.4mln
Gross financing gap (% project cost)	49%	39%	35%
Project boost (where credit is traded for equity)	\$15mln	\$15mln	\$15mln
Fixed and indexed boost (Yr 1)	\$15,000	\$15,000	\$15,000
Average annual tax credit (10 years)	\$18,870	\$18,870	\$18,870
Tax credit as a share of rent rebate, total per dwelling	164%	130%	103%
Average annual tax credit as % of project cost (100 properties)	5.8%	4.9%	3.9%
Stock remaining after debt settlement	76%	74%	71%
NPV Operating cash flow	15%	13%	5%
Meets NHFIC's ICR requirement	Yes	Yes	No

Assumptions: As Table A1.

Source: As Table A1.

Table A4 Fixed percentage boost based on project cost: variations across low-high land and rent areas over 20 years

	Low land/ low rent	Medium land/ medium rent	High land/ high rent
Project cost	\$32.4mln	\$38.1mln	\$48.4mln
Gross financing gap (% project cost)	49%	39%	35%
Project boost (where credit is traded for equity)	\$11.3mln	\$13.3mln	\$16.9mln
Average annual tax credit	\$14,250	\$16,800	\$21,300
Tax credit as a share of rent rebate, total per dwelling	125%	115%	116%
Average annual tax credit as % of project cost (100 properties)	4.4%	4.4%	4.4%
Stock remaining after debt settlement	70%	72%	73%
NPV Operating cash flow	-0.0%	7%	10%
Meets NHFIC's ICR requirement	No	Yes	Yes

Note 1: as Table A1.

Note 2: Flat rate tax credit subsidy is provided at 35% of total project costs. In NPV terms this is equivalent to 4.4% of project cost per annum.