



Supporting vulnerable households to achieve their housing goals: the role of impact investment

Inquiry into social impact investment for housing and homelessness outcomes

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AUTHORED BY

Richard Heaney
The University of Western Australia

Paul Flatau
The University of Western Australia

Kristy Muir
The University of New South Wales

Gill North
Deakin University

Libby Ward-Christie
Social Traders

Eileen Webb
Curtin University

Kaylene Zaretsky
*The University of Western
Australia*

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Authors	Richard Heaney		The University of Western Australia		
	Paul Flatau		The University of Western Australia		
	Kristy Muir		The University of New South Wales		
	Gill North		Deakin University		
	Libby Ward-Christie		Social Traders		
	Eileen Webb		Curtin University		
	Kaylene Zaretsky		The University of Western Australia		
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Acronyms and abbreviations used in this report

ABS	Australian Bureau of Statistics
ACHA	Aged Care and Housing for the Aged
AHURI	Australian Housing and Urban Research Institute Limited
ATO	Australian Taxation Office
AUM	Assets under management
CDC	Consumer Directed Care
CDFI	Community Development Financial Institutions
CFFR	Council on Federal Financial Relations
CHP	Community Housing Provider
CHSP	Commonwealth Home Support Program
CRA	Commonwealth Rent Assistance
CSHA	Commonwealth State Housing Agreement
DFI	Diversified Financial Institutions
DV	Domestic Violence
EAX	Expert Advice Exchange
ETF	Exchange Traded Fund
GDP	Gross Domestic Product
HGREA	HomeGround Real Estate Agency
HSC	Hutt St. Centre
ICH	Indigenous Community Housing
IRR	Internal Rate of Return
NAHA	National Affordable Housing Agreement
NDIS	National Disability Insurance Scheme
NGO	Non-Government Organisation
NHFIC	National Housing Finance and Investment Corporation
NRAS	National Rental Affordability Scheme
NSW	New South Wales
REIT	Real Estate Investment Trust
Rf	Risk free rate

RREIT	Residential Real Estate Investment Trust
SA	South Australia
SAAP	Supported Accommodation Assistance Scheme
Sd	Standard deviation
SDA	Specialist Disability Accommodation
SHI	Social Housing Initiative
SHS	Specialist Homelessness Service
SIB	Social Impact Bond
SII	Social Impact Investing
SMSF	Self-Managed Superannuation Fund
SVA	Social Ventures Australia
UK	United Kingdom
US	United States (of America)
UWA	University of Western Australia

Glossary

CoreLogic: The supplier of the postcode level data used in the analysis of property returns at the postcode level in the present study¹. These data include rolling 12 month total value of property sales, total number of sales and median sale price over the period 2001 to 2014. Rolling 12 month advertised weekly rent is also supplied over the period 2005 to 2014. Financial years are used in analysis.

Development Financial Institutions: Specialised development banks or subsidiaries set up to support private sector development in developing countries. They are usually majority-owned by national governments and source their capital from national or international development funds or benefit from government guarantees².

Financial year: Each 12 month period starts in July in one year and finishes in June of the following year. For example, the 2014 financial year spans the period from July 2013 through to June 2014.

Loan at subsidised rates: A loan at subsidised rates is one where the lender is prepared to accept lower than market interest rates.

Mutual fund: An accumulation of assets generally held in a trust for the benefit of unit holders and managed by directors of a trustee company charged with managing the asset for the benefit of the unit holders. Investors buy units in the trust (unit holders) and these funds are then used in accordance with the objectives of the trust to acquire assets. The units that the investor acquires can then be bought or sold if required. Where the fund is a listed fund, the units can be bought or sold on an organised exchange such as the Australian Securities Exchange. Where the fund is unlisted, then units are bought and sold privately, generally via an intermediary such as a bank. The trustee directors are responsible for the management of the assets and distributions that are made to the unit holders.

Patient loan: A patient loan is one where the lender is prepared to grant the borrower the right to delay payment of either interest or principal.

Private equity investments: Investment made by a small group of investors (limited partners) in assets acquired by a private equity firm. The assets are managed by general partners in the private equity firm for a period generally not exceeding 10 years. The first five years of this period is used to identify suitable investments and the later period is devoted to generating returns. Income and capital gains are distributed among the partners according to the partnership agreement.

Social enterprise: Organisations or organisation node(s) that (i) are led by an economic, social, cultural, or environmental mission consistent with a public or community benefit; and (ii) trade to fulfil their mission and derive a substantial portion of their income from trade; and, (iii) reinvest the majority of their profit/surplus in the fulfilment of their objectives (Barraket, Collyer et al. 2010). For example, a coffee shop operated by a homelessness service (possibly employing clients) generates revenue from the coffee shop and this is used by the service to provide homelessness supports.

Social benefit bonds (or Social impact bonds): A financial instrument that pays a return based on the achievement of agreed social outcomes where private investors provide the

¹ See <https://www.corelogic.com.au/products/rp-professional>. A description of the data provided by this supplier is at <https://www.sirca.org.au/2015/06/sirca-corelogic-rp-data-white-paper/>.

² See <http://www.oecd.org/dac/stats/development-finance-institutions-private-sector-development.htm>.

capital to deliver a program or service, and the savings generated from achieving better outcomes enables the government to repay the upfront investment and provide a return (NSW Government 2015b).

Social impact investors: Individuals or organisations that place capital and capabilities to fund projects, and organisations that deliver financial as well as social or environmental returns (Muir, Moran et al. 2017; Mudaliar, Schiff et al 2016; Saltuk and El Idrissi 2014, 2015).

A list of definitions for terms commonly used by AHURI is available on the AHURI website www.ahuri.edu.au/research/glossary.

Executive summary

This report is part of an AHURI Inquiry into social impact investment for housing and homelessness outcomes and addresses the question: What are the actual, potential and perceived opportunities and risks of social impact investment (SII) for housing and homelessness policy in Australia? It examines different SII finance options and uses financial modelling and case studies to address this question with a focus on access to housing and support for vulnerable households.

- The most vulnerable groups requiring housing include: People primarily citing financial stress and/or housing crisis; those experiencing homelessness; people experiencing domestic and family violence (DV); those leaving home due to family and domestic violence and housing crises; people with complex needs such as mental health and/or alcohol and drug issues; people with a disability; the aged who have low incomes and have insecure housing.
 - The key SII options considered in the study are: the bond aggregator model for funding for affordable housing; Social Impact Bonds (SIBs), private capital impact investment firms; Impact Investment Mutual funds; and Social Impact Loans.
 - In terms of the role of impact investing to finance low-cost affordable housing, our empirical findings suggest that social impact financial models that rely solely on rental streams could provide a steady annuity stream to investors in the current low interest rate environment. Capital gains returns add to the financial benefit of an impact investing option. To supplement a bricks-and-mortar SII approach and support vulnerable populations to enter and maintain housing, the SIB instrument appears the most viable SII option.
 - There is much promise with various SII financial instruments and models, but numerous barriers need to be overcome. A viable SII market would require assistance by government to help close or minimise return gaps, especially because of a) the low incomes of very vulnerable tenants; b) the finance gaps faced by Community Housing Providers (CHPs); and c) the limited number of impact first investors.
 - The study finds a limited existing use of SII in the case of social enterprises. Low levels of SII do not simply reflect a case of building understanding and capability among social enterprises and not-for-profits. Nevertheless, the study presents social enterprise case studies which demonstrate that SII can work when there is alignment of purpose and an understanding of the social impact of the investment, and there is an acceptance of a lower than market financial return and some level of risk presented by the enterprise.
-

This report is the second of three projects to be released as part of the Australian Housing and Urban Research Institute (AHURI) Evidence-Based Policy Inquiry, *Inquiry into social impact investment for housing and homelessness outcomes* (see Muir, Moran et al. 2017 for the first report of this Inquiry). The Inquiry sets out to answer:

- 1 What is social impact investing and how can it be applied to housing and homelessness policy in Australia?
- 2 What are the actual, potential and perceived opportunities and risks of social impact investing for housing and homelessness policy in Australia?
- 3 How can social impact investment be operationalised to housing policy in the Australian context?

This report primarily answers the second research question for the Inquiry. It takes a specific look at finance models and options regarding how this might work in practice. What different finance instruments and models could be used to enact SII in Australia to address housing affordability and homelessness issues? Who might be helped? Will there be winners and might certain groups be left behind? This project has examined different finance options and used financial modelling and case studies to better understand the potential, opportunities and risks of SII in Australia to address these issues.

Key findings

SII is being considered as a (relatively) new solution to a previously intractable social problem—affordable housing and housing for vulnerable people in the housing market. Internationally, affordable housing is a target for approximately half of impact investors, but it is the largest investment area (accounting for 22% of total assets under management). SII presents an important opportunity in Australia, but we need to better understand the finance instruments and models that might be feasible and which groups can most benefit from SII in the housing space.

This research has found that the most vulnerable groups requiring housing who are experiencing homelessness or at direct risk of homelessness include:

- **People primarily citing financial stress and/or housing crisis:** This group generally presents without other contributing issues, and are less likely to have a history of homelessness (AIHW 2014).
- **Indigenous people** are experiencing a growing over representation in the homelessness population. In 2015–16 Indigenous people were 9.1 times more likely to use Specialist Homelessness Services (SHSs) than non-Indigenous people (AIHW 2017).
- **People experiencing domestic and family violence (DV):** There were 38 per cent of people seeking SHS assistance who cited DV as a reason. Most of this group are women (63%) and children (29%) (AIHW 2017). Over half (61%) were at risk of homelessness (AIHW 2017).
- **Young people:** Including those leaving home due to family and domestic violence (15%) and housing crises (24%), one in four young people presenting were Indigenous in 2015–16 (AIHW 2017).
- **People with complex needs such as mental health and/or alcohol and drug issues.** Clients with a current mental health issue are the fastest growing client group within the SHS population, growing at an average rate of 13 per cent per year since 2011–12 (AIHW 2017). They are more likely than other homelessness populations to require support to successfully access and/or maintain a tenancy.

- **People with a disability.** People with a disability on low incomes are constrained both in public housing and the private rental market (Productivity Commission 2011) and have more complex needs than the average homelessness client (AIHW 2017). In 2015–16 there was a 12 per cent increase in the number of clients; with an estimated 10,000, people with disability who sought assistance from SHSs. Twice as many people with a disability seeking assistance were over 55, when compared with the general SHS population (AIHW 2017).
- **The aged who have low incomes and have insecure housing or are homeless.** Often these people have been renting and rental in their area has become unaffordable. People aged 55 and over comprised 8 per cent of all people accessing SHSs in 2015–16. SHS use by this group is growing at over twice the rate of the general SHS population, with an average annual growth rate of 9.5 per cent each year since 2011–12. The growth for Indigenous older clients has been even higher at 16.8 per cent each year. Older clients are also requiring longer support periods and are having greater difficulty in finding suitable housing. (AIHW 2017).

It is important to understand these different vulnerable groups to determine the type of housing and tenancy support services that will assist them to achieve safe, stable and affordable tenancies and then to consider appropriate funding sources.

SII has become an increasing federal and state/territory government focus as a financing solution to complex social problems, like housing security and affordability for low income earners and addressing homelessness. Interestingly, while the Council on Federal Financial Relations Affordable Housing Working Group³ concluded that SII was not a preferred model for affordable housing (because of its inability to attract institutional investors at scale), this research found a range of finance instruments that could be further explored because of the benefit of an asset base in housing. These include financial instruments that are already being considered and implemented:

- The bond aggregator model for funding for affordable housing. This includes social impact loans for housing at subsidised rates. Government payments to individuals could be passed on to the lender to meet interest and principal costs.
- Social Impact Bonds (SIBs), which are based on a return payment for savings (typically by government) if specified social outcomes (such as housing access or tenancy sustainability targets, or provision of accommodation at specified cost) are achieved. Typically, SIBs work with smaller funding amounts than other types of impact investment models and will need to be scaled up to fund larger scale tenancy support initiatives.

However, this project found three additional options that should also be considered:

- Private capital impact investment firms which invest in affordable housing projects and work closely with project managers. The holding period would be approximately ten years, with assets then on-sold to other market participants. Projects could be relatively small (\$20 million to \$30 million). Given price movements over the past decade and assumptions set out in later sections, private equity partners investing in residential houses (units) could have earned a return of 5.9 (7.2%) per cent per annum, with positive risk adjusted return (Sharpe ratio).
- Impact Investment Mutual funds (listed or unlisted) have the ability to mobilise a large amount of capital, the flexibility to be tailored for SII and provide liquidity to enable capital

³ For background on the Australian governments' Council on Federal Financial Relations Affordable Housing Working Group see <https://treasury.gov.au/consultation/council-on-federal-financial-relations-affordable-housing-working-group-innovative-financing-models/>.

gains to be realised without the need to sell the underlying affordable housing assets. A trustee could oversee the fund and a Community Housing Provider (CHP) provide tenancy management. This could be supplemented by government-funded tenancy and/or social supports. The mutual fund could be listed on a stock exchange or set up as an unlisted retail or wholesale fund. Fund units could be sold to individual investors or institutions, including superannuation funds. Financial modelling of an SII mutual fund given price movements over the past decade and assumptions set out in later sections, superannuation products would have, on average, generated a positive return for beneficiaries on residential houses (units) of 6.4 (7.7%) per cent per annum, with positive risk adjusted return (Sharpe ratio).

- Social Impact Loans form the third alternative. In this case government payments are made to individuals (or the lender) to cover part of the interest and/or principal payments due on a loan covering the purchase of property. These loans may also accept delayed repayment.

While there is much promise with various SII financial instruments and models, there are numerous barriers that need to be overcome. A viable SII market would require assistance by government to help close or minimise return gaps, especially because of i) the low incomes of very vulnerable tenants; ii) the finance gaps faced by CHPs; and iii) the limited number of impact first investors.

- Our empirical findings suggest that social impact financial models that rely solely on rental streams may be possible and could provide a steady annuity stream to investors in the current low interest rate environment. However, we do not pursue this possibility further in this study as social impact investors would generally focus on both capital gains and rental returns in considering the performance of their investment.
- CHPs face high operational and asset management costs as well as often facing costs to support the tenancies of vulnerable people. It is challenging for CHPs to generate a financial return because they are unlikely to readily sell dwellings for this reason because they aim to provide tenants with security of tenure. Further, CHPs face reduced rental income and capital gains (and thus returns). This is particularly true if a property is to be made available at a social rent rate (30% of income, and the only income source is a social security payment, which is the case for many vulnerable households. Finally, CHPs are limited in their ability to scale while they are 'leasing' rather than owning government properties because they cannot leverage these properties against borrowed funds to increase stock at a reasonable interest rate. We do not explore this possibility in this study though this is an important area for future research.

Applicability of SII in the context of housing vulnerable populations

The research findings suggest that the finance options explored, with the exception of SIBs, are most suited to large investments in housing assets, which make them more suitable for scalable affordable housing initiatives, rather than as scalable options to support people vulnerable to homelessness to enter housing. Questions need to be raised as to the extent that homelessness interventions and affordable housing for vulnerable households with welfare as their only income source, might achieve viable financial returns, and the investment environment required to support these investments.

The SIB structure appears to be most suitable to support vulnerable populations to enter and maintain housing. While there is a growing body of evidence that homelessness support is associated with a reduction in the use of non-homelessness services; including health (e.g. days in hospital and mental health care) and justice services. Thus far, there has been little evidence in any change in employment or in the cost of welfare payments (Conroy, Bower et al. 2014; Johnson, Kuehne et al. 2014; Zaretzky, Flatau et al. 2013). Studies typically conclude that cost-savings from reduced use of non-homelessness services at least in part offset the cost of providing homelessness support. However, in only limited cases has the conclusion been

drawn that the cost offsets clearly completely offset the cost of support (Wood, Flatau et al. 2016). As SIB payments are typically triggered only if the value of the economic impact of the program is greater than the cost of delivering the program, this suggests that only a limited number of homelessness support programs would be suitable for financing using a SIB. It remains to be demonstrated whether the Aspire SIB achieves its financial returns.

The few Australian examples where SII has played a role in affordable accommodation and support for vulnerable households relate to financing of social enterprises which operate in this space, either providing employment opportunities for vulnerable populations or affordable accommodation. The Big Issue, STREAT and Launch Housing's HomeGround Real Estate are three of the most well-known and established.

The limited use of SII is not simply a case of building understanding and capability among social enterprises and not-for-profits. The findings from the Aspire, HomeGround Real Estate and STREAT case studies provide insight into particular challenges in using SII as a funding source when both housing and support services are required.

Needs and market expectations do not align because:

- *Social enterprises and Not-For-Profits (NFPs) usually exist as a response to market failure*, which means that they exist when the market is not able to provide people with what they need and, critically important in the SII space, it also means that significant profit generation is highly unlikely because market failure responses can result in low margin solutions.
- The majority of impact investors expect a market return, rather than a lower than market return (Impact Investing Australia's 2016 survey of current and potential social impact investors found 58% expected competitive market rates of returns). This is challenging in Australia where we have a smaller pool of investors than in other countries where SII is more developed.

The two social enterprise case studies, STREAT and HomeGround Real Estate, demonstrate that SII can work when:

- There is alignment of purpose and an understanding of the social impact of the investment.
- There is an acceptance of a lower than market financial return.
- There is an acceptance of some level of risk presented by the enterprise.
- There is confidence that the returns generated from the SII would only be used for purposes that aligned with the values and purpose of the organisation.
- Transaction costs are accounted for and covered.
- There is an appetite for low liquidity—that is, there is limited ability to exit.
- Organisations are using a mix of funding types (SII plus grants, philanthropy and donations): the right capital needs to be available in the right format at the right time.
- Taxation (or other direct government subsidies) is assisting to support the financial viability of the enterprises.
- There are income sources that generate profit (STREAT has the Social Roasting Company; 78% of HomeGround Real Estate's 267 properties do not have subsidised rent).

In the case of the Aspire SIB, some key findings can be gleaned despite the early stage of this SII:

- It relies on measurable outcomes that have fixed dollar values against the change in service utilisation: improvement in health (hospital bed days), justice (convictions) and short-term or

emergency accommodation homelessness service utilisation relative to a fixed historical basis.

- The returns rely on the availability of high quality linked data across different government portfolios to measure outcomes and define the counterfactual.
- Government is underwriting the risk to some extent (2% pa fixed coupon over 4.5 years).
- While the Aspire SIB was oversubscribed within a four-week period, with approximately 65 investors taking part, showing an appetite in the market for Impact Investing opportunities, it is important to recognise that this was in part attributed to being South Australia's first SIB and a gap of three or four years since the last Australian SIB capital raising exercise.
- It is too early to determine if this SIB will generate the returns expected.
- Lack of rigorous and publically available government service use and cost data required to define the economic model which informs outcome payments under the SIB arrangement is seen as major challenge to SIB development.
- The intensity of the procurement process and high fixed transaction costs limits applicability to larger scale programs (these types of costs are likely to fall over time).

Policy development options

The findings of this research have a number of policy implications:

- Australia lacks pooled investments in the property market as an asset class. There are currently few listed or unlisted investment options that provide investors with exposure to the residential property market on a pooled basis, which raises challenges for the development of social impact property funds to provide affordable housing or housing for the most vulnerable. The four vehicles outlined in this report should be explored as options by government.
- While there is much promise with various SII financial instruments and models, there are numerous barriers that need to be overcome. A viable SII market would require government assistance to help close or minimise return gaps for investors and CHPs.
- Our research found that most of the returns on residential property investment during the study period arose from capital gains. This suggests that social impact investors will seek portfolios that create exposure to both capital gains and rental returns.
- The findings of this report reinforce the need for government to revisit the National Rental Affordability Scheme (NRAS). Research suggests that one of the limitations of institutional investors in NRAS was a lack of trust in the government's ongoing commitment. This has implications for not just a future form of NRAS, but also implies the need for stable longer term government commitment in other areas that will help boost trust and, in turn, investment in SII and housing projects.
- NRAS also demonstrated that private-sector investors seek investments with exposure to both the potential for capital growth and rental returns (Rowley, James et al. 2016). This suggests that at least for private investors, there is some need for market structures which provide for liquidity, allowing exposure to capital gains as well as rental income.
- Government policy and regulatory changes could assist to increase opportunity for superannuation funds to invest in SII initiatives in affordable housing.
- Given SII relies on understanding the social return on investment, it is critical that high quality outcome data collection, reporting and evaluation forms a core part of developing the SII landscape in Australia.

- 2017 Commonwealth Government budget proposals for a bond aggregator and managed investment trusts to support investment in affordable housing are important initial steps in development of market infrastructure to support pooled investments and liquidity.

It is important to acknowledge that this study was undertaken at a time of more than two decades worth of Gross Domestic Product (GDP) growth and sustained growth in property prices in Australia and rising rents. However, it was also a time of limited wage growth (no real growth for people on social security payments) and increases in social inequality. This has created ideal market conditions for investors and increased the housing stress of many and the demand for more affordable housing. This environment also increases future risk in investing in the housing market because the residential property market may not generate the same levels of capital growth in the next decade. It is clear that housing portfolios could be evaluated over a longer time horizon, but data is not available at present. The residential property returns analysed in this study provide valuable insight into the residential property market in Australia over the last decade. Postcode level data used in this study have not been available for analysis until quite recently and the use of this data marks a key contribution of this study.

There are two further general observations about the return data used in the present research study. First, capital gains are an important component of residential property total return, consistent with a wide range of financial and real assets. Second, in contrast to capital gains, rental yields are relatively stable over the study period. Similar levels of stability are also observed for coupons attached to bonds, dividends paid on shares, and rental yields earned on commercial property.

The finance vehicles are only useful if they can be matched to the needs of either housing or housing service providers and/or people in need of housing support. Findings from the three case studies illustrate a number of issues that require policy attention if the potential of SII is to be realised. Key policy implications include:

- The need for capital requirements to match legal form—STREAT was able to leverage the benefits of their charitable status and issue equity in the Social Roasting Company assets that were important to doubling their scale early in their history. NFPs are unable to take on equity capital because of their company structure. Like STREAT, if they wished to do this, it would require a subsidiary for-profit company.
- The importance of blended and appropriate capital with a focus on financial viability and optimal social impact.
- The needs of the social enterprise must be married with the needs of impact investors, and this union is time consuming and expensive to orchestrate. There are high transaction costs that organisations will need assistance with either via a pro bono arrangement or direct funding.
- There is a need to support increased access to a breadth of financial/funding categories—grant, sub-market 'soft loans' and SII—if social enterprises addressing entrenched social problems such as homelessness are to thrive.
- Housing-based social enterprise models struggle to support people with higher needs. They usually cannot afford even the discounted rents of affordable housing properties; and the costs of tenancy support is high. Separate block grant funding may be required to sustain this support for the tenant and to decrease the risk for landlords.
- Establishment, infrastructure and operational costs require seed or core funding separate to SII.
- Ongoing capacity building is critical across the SII market.
- Growth of market size is required to assist it to meet its potential.

- The reduction of fixed transaction costs (or the provision of funding or pro bono support for transactions, such as through NFP intermediaries) is critically important to SII's market development. If not addressed, smaller to medium-sized NFPs will not be able to compete in the market for SII funding.
- Government has an important role to play in ensuring required outcome data are collected, data management methods are robust and efficient, data linkage protocols are established (and the process becomes less costly), and infrastructure is provided to support interrogation and analysis of data. Investing in analysis of linked government administrative data is particularly important to develop evidence around the longevity of positive outcomes for program participants, and thus the period over which economic savings are expected to be generated.
- Commonwealth Government involvement in the SIB market is important with the potential to increase the size of the SIB market through Commonwealth Government issue of SIBs, further development of market infrastructure and through improved data availability.
- There is a need to further grow the investor base for SIBs and social impact investing generally, and grow the amount of capital willing to accept a mixture of financial and social return.

In regard to specific groups of vulnerable people, further consideration and future research is needed about whether SII is appropriate and whether sufficient return on investments would flow. For example, in aged care, while a SIB may be appropriate, aged care is currently funded by the Commonwealth Government while most cost savings are likely to come from state and territory government health portfolios. Further monitoring is also required for people with disabilities as the National Disability Insurance Scheme (NDIS) is implemented.

The study

The research was conducted to inform and progress housing policy by developing an understanding of the actual, potential and perceived opportunities and risks for SII to improve housing and homelessness outcomes in Australia. This project aims to:

- Determine the most vulnerable population groups requiring affordable housing and/or who are homeless.
- Examine different finance instruments and models for SII in residential property and the return and risk generated.
- Provide case study evidence of SII in housing and employment options that aim to support key vulnerable population groups (including seniors, those with disabilities, the homeless and social enterprises providing opportunities for the homeless).
- Inform housing and SII finance policies.

Key data collection methods:

- A targeted literature review was undertaken examining government policy and financial mechanisms through which affordable housing and support for vulnerable households is provided in Australia and the potential forms of impact investment vehicles; characteristics of vulnerable household populations; and four vehicles for gathering funds into a pool to facilitate impact: private equity, mutual funds, SIBs and social impact loans.
- Three case studies were conducted, including on the Aspire SIB (SA); HomeGround Real Estate (Victoria); and STREAT.

- Issues around SII to fund housing and support for the elderly and people with disabilities were explored via stakeholder interviews with representatives of Foundation Housing, Capital Asset Developments, Grace Mutual, the Centre for Public Impact, BlueChip CHP, Impact Investing Australia, ShelterSA and Homeground.
- Financial analysis of capital gains and rental return data to provide information on the level and distribution of returns generated by residential property portfolios. Data was based on 65,724 properties (36,935 houses and 28,789 units) per year from the Suburb ScoreCard, Core Logic RP data supplied to the University of Western Australia (UWA) by SIRCA; Australian Taxation Office taxable income data; and location data from the Australian Bureau of Statistics.

1 Introduction

Vulnerable populations in the housing market include low-income households in rented accommodation who are aged or experiencing long-term physical and mental health issues and permanent disabilities together with those who are homeless or at risk of homelessness. Such households require low-cost, affordable housing options and support to access and maintain that housing and may have little chance of accessing employment.

Social impact investing (SII) represents a fledgling funding source to supplement other sources in meeting the housing and employment needs of vulnerable households.

This report: (i) presents a quantitative financial modelling of return and risk in the low-cost end of the housing market to provide direct market evidence for implementing impact investing options in the housing market for vulnerable households; (ii) discusses potential market structures to facilitate investment in affordable residential property portfolios; and (iii) provides case-study evidence of fledgling impact investment in Australia around both housing and employment options.

- Government is fostering SII market infrastructure and state governments are trialling SII Social Impact Bond projects.
 - Affordable housing challenges are greater for vulnerable households where welfare payments are the primary income source, so affordable rent is at a substantial discount to market, and tenancy support is also often required.
 - Previous analysis of property portfolio returns have relied on commercially traded property trust data, which is unlikely to reflect the return/risk profile of a SII in residential property for vulnerable households. We provide new evidence on the return/risk profile of various residential property portfolios with separate analysis of the impact of discounting the level of rent charged on these properties. This analysis is based on property returns from the past decade.
 - Four models for pooling affordable housing investments are discussed, providing insight into how these models may work in practice. These return/risk profiles from the financial analysis are then modelled in the context of the SII mutual fund model for a superannuation fund as well as for a private equity firm investment. Both assume long-term investment in residential property, whether it be houses or units.
 - Stakeholder interviews and case studies further examine opportunities and barriers to SII in the context of vulnerable households, including funding for tenancy support and of social enterprise aimed at assisting vulnerable populations.
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1.1 Why this research was conducted

The decline in availability of affordable housing in Australia forces many onto waiting lists for social housing with the prospect of homelessness if they are not able to obtain suitable accommodation. Vulnerable populations include those under significant housing stress but otherwise capable of maintaining a tenancy in a more affordable setting, together with populations such as low-income households experiencing long-term physical and mental health issues and permanent disabilities together with those who are homeless or at risk of homelessness.

Housing insecurity and homelessness for older people is increasing (Travia and Webb 2015). If these, often vulnerable, seniors cannot find accommodation in public housing, they must navigate the private rental market (often simply unaffordable on a pension or fixed income) or resort to more marginal forms of accommodation such as boarding houses or 'couch-surfing' in friends or relatives homes. Likewise, there has been concern with relatively young people with disabilities living in nursing homes. In terms of homelessness, the provision of housing through Housing First (Groton 2013; Busch-Geertsema 2013; Sillanpaa 2013; Van Leerdam 2013; Pleace 2015) and related programs to expand housing options for homeless people have proved successful in achieving better than expected tenancy sustainability rates. Such programs have been shown to reduce government health costs and thereby provide a financial investible return (Salit, Kuhn et al. 1998; Kushel, Perry et al. 2002; Culhane, Metraux et al 2002; Corporation for Supportive Housing 2004; Perlman and Parvensky 2006; Social Policy Research Centre 2007; Flatau, Zaretsky et al. 2008; Hwang, Weaver et al. 2011; Flatau, Conroy et al. 2012; Zaretsky, Flatau et al. 2013; Zaretsky and Flatau 2013; Conroy, Bower et al. 2014, Fuehrlein, Cowell et al. 2015; Wood, Flatau et al. 2016; Parsell, Petersen et al 2016).

For these vulnerable populations, the availability of affordable housing alone is often not sufficient to mitigate the risk of homelessness and support is required to access and/or maintain that accommodation. Access to employment opportunities is also an important aspect of mitigating risk of homelessness. Any policy relating to affordable housing for populations vulnerable to homelessness must consider each of these aspects.

Social Impact Investing (SII) represents a potential funding mechanism for capital investment in affordable housing and provision of tenancy support for vulnerable households and has been used to finance social enterprises with a focus on employment opportunities for vulnerable populations. Use of SII in these domains in Australia and overseas is in its infancy, but examples do exist.

This report examines how impact investment may be used to:

- Create affordable, sustainable housing options and tenancy support for those currently in a vulnerable housing situation, including seniors, people with disabilities and homeless people or those at risk of homelessness.
- Provide employment and social opportunities which supplement housing for vulnerable seniors, those with disabilities and homeless people through social enterprises.

Valuable new evidence is provided on the risk and return of investing in affordable housing based on original financial modelling, which is essential for potential impact investors to assess viability of investment in this asset class. There is little research published concerning residential property returns at the postcode level and the analysis reported below provides an important contribution to the literature. It also provides insights around market structure, regulation and policy via examination of SII case studies and the literature, and interviews with stakeholders in the homelessness and housing space. These aspects are combined to make policy recommendations supporting facilitation of SII financing of both affordable housing and support for vulnerable households with more complex needs to maintain tenancies.

1.2 The policy context

Governments are looking for an affordable housing system that maximises tenant outcomes. This includes improving housing options available to tenants as well as providing housing options that also contribute towards improvements in other tenant outcomes, such as health and employment, through important wrap-around services (CFFR 2016).

Housing affordability has three key dimensions: house purchase affordability, mortgage repayment affordability and rental affordability (Australian Government 2014). When considering vulnerable households, rental affordability is the most immediate dimension, but this in turn is a product of the other two. Availability of affordable housing is affected by a range of government policies including those relating to social housing, taxation, aged care, disability and indigenous affairs, zoning and planning issues (Australian Government 2014). At the Commonwealth level, the tax system strongly drives residential mortgage investment in private dwellings through capital gains tax exemptions and negative gearing. Revenue foregone through these measures greatly surpasses direct assistance to low-income households in rental housing (Lawson, Legacy et al. 2016). In Australia there has been a recent shift back towards policies to increase the supply of affordable housing, and private investment in affordable housing through SII is viewed as having potential to contribute to increased supply. SII has also been seen as a means of funding wrap-around support services required to support vulnerable households in a tenancy.

Traditionally in Australia affordable housing available outside the private sector has been provided by government and administered by the Housing Authority in each of the state and territory jurisdictions. Nearly all public housing tenants rely on receipt of a Commonwealth social security payment for income (Australian Government 2014). Funding for public housing was primarily provided through the Commonwealth State Housing Agreement (CSHA) until 2009 and subsequent to this through the National Affordable Housing Agreement (NAHA) and various Partnership Agreements for social housing. Since 2009 these agreements also provided funding for programs designed to support homeless populations and those at risk of homelessness. Previous to this, homelessness assistance was provided through the Supported Accommodation Assistance Scheme (SAAP). From the 1980s, the Commonwealth also began to place greater emphasis on demand-side housing assistance, such as Commonwealth Rent Assistance (CRA) for those in the private rental market who receive a Centrelink benefit, and grants to first home owners. However, as rental costs have been increasing faster than the Consumer Price Index against which CRA is indexed, CRA payments are losing real value for individuals over time (Australian Government 2014), further reducing affordability in the private rental market. States and territories also provide financial support to renters through private rental assistance and to buyers through home purchase assistance (SCRGSP 2017). At the same time, investment in public housing (supply-side) declined, resulting in a reduction in public housing stock as a proportion of all housing (from 5.6% in 1971 to 4.0% in 2011) (Australian Government 2014). The situation is very different for Indigenous households. The 2011 Census showed that, nationally, about 26 per cent of Indigenous households were renting from public or community housing providers. Many remote indigenous communities are totally dependent on public housing and there are regulatory barriers to individual land ownership (Australian Government 2014).

The 2008–09 changes to government housing and homelessness policy also saw government again becoming involved in the supply-side to support housing affordability through policies such as the National Rental Affordability Scheme (NRAS), and the Social Housing Initiative (SHI) (2009 to 2012). These schemes were designed to increase private sector investment in affordable housing (Australian Government 2014). The NRAS scheme offered financial incentives to persons or entities to build (generally for development of 100 or more dwellings) and rent dwellings to low and moderate-income households for at least 20 per cent below

market rates for 10 years. Applicants could include financial institutions, large-scale private investors, not-for-profits and Community Housing Providers (CHPs). However, the final application round in 2013 was cancelled because the scheme had only managed to attract small-scale, rather than institutional, investment, had been slow in delivering affordable homes and had failed to achieve its delivery targets (DSS n.d.; CFFR 2016). The SHI delivered around 19,700 new social housing dwellings (Australian Government 2014), and (as at October 2016) the NRAS had delivered around 30,000 homes, with a further 8,000 under development (CFFR 2016). However, the ten-year life of incentives under the NRAS means that large numbers of these properties will revert to market rent during 2018 (CFFR 2016).

There are also non-mainstream programs to facilitate access to housing, which cater to specific needs. For example, from 1 July 2016, Specialist Disability Accommodation (SDA) provides funding assistance in the form of payments to top up the rent of National Disability Insurance Scheme (NDIS) participants who have an extreme functional impairment or very high support needs and require specialist housing solutions. SDA forms part of a person's NDIS funding package and relates to provision of a dwelling of required design, type and location to meet the person's needs (CFFR 2016; Australian Department of Human Services n.d.). The SDA rental guarantee gives owners of suitable SDA accommodation a secure and commercial income stream which can also be borrowed against to develop purpose-built accommodation. For example, in NSW the non-profit foundation, Summer Housing, has purchased 10 apartments in a 110 unit building and modified them during construction for clients with disabilities (Summer Housing Foundation n.d.).

An increase in supply of affordable accommodation for the disabled will also have a flow-on affect for aged care, allowing some disabled people who currently reside in aged care accommodation because there is no other alternative to move into their own residence.

Housing assistance for older people who are homeless or at risk of homelessness is delivered under Assistance with Care and Housing for the Aged (ACHA), which forms part of the Commonwealth Home Support Program (CHSP). The ACHA provides basic support with finding suitable accommodation, advice on how to fill out housing application forms, and assistance with financial and legal work such as rent relief, bond assistance, tenancy advice and legal services filling out forms (Australian Government n.d.).

Coordination of housing policy across jurisdictions has been negatively impacted since 2013, when cross-jurisdictional housing-related forums were largely eliminated. Subsequently, coordination has become more centralised but less transparent, as housing policy has moved more closely towards Treasuries under the Council on Federal Financial Relations (CFFR) (Lawson, Legacy et al. 2016). Most recently, policy leadership has come from Commonwealth Treasury's Social Policy Division which formed an Affordable Housing Working Group to identify and assess potential financing and structural reform models that increase the provision of affordable housing (social housing and housing in the private rental market) for those on low incomes, and to outline the best method to progress further any models that are identified as potentially viable.

The Working Group Issues paper focuses on four financial models—housing loan/bond aggregators, housing trusts and housing cooperatives, and impact investment models including social impact bonds. It recommends the bond aggregator model as the most likely model (see Chapter 2 for further discussion). It also concludes that the success of financing models that rely upon the engagement of private institutional investment will likely require take-up on a multi-jurisdictional basis in order to provide the necessary scale (for both threshold investor engagement and for financing efficiency). Returns and liquidity were also seen as key barriers to overcome (CFFR 2016). More recently, the Commonwealth Treasury put forward a Consultation Paper in relation to the establishment of the National Housing Finance and Investment Corporation (NHFIC) as part of the Government's 'Comprehensive housing

affordability plan for all Australians' announced in the 2017–18 Budget. The Consultation Paper recommends the establishment of the affordable housing bond aggregator to act as an intermediary between Community Housing Providers (CHPs) on the one hand and wholesale bond markets on the other. CHPs are not-for-profit and non-government organisations providing social and affordable housing to renters. The aim of the bond aggregator is to raise funds from super funds, wholesale investors, governments and banks for CHPs at lower cost and over a longer term than traditional sources of finance so reducing borrowing costs.

Community Housing Providers (CHPs) are the other primary providers of affordable housing. These not-for-profit organisations are managed by community organisations that lease properties from government or receive a capital or recurrent subsidy from government. Since 2009 there has been a move by state and territory governments to transfer 'up to 35 per cent' of public housing stock to the community sector. This has been motivated by cost pressures, with rental income from public housing stock not increasing at a rate to cover increasing maintenance and management cost, as well as a desire to explore alternative ways of providing affordable housing. Community organisations are often better placed to offer 'wrap-around' support services (of which housing is only one part) and respond holistically to clients' needs, particularly those with complex needs (Australian Government 2014). This transfer of properties to the CHP sector, plus investment in the sector through the SHI resulted in community housing increasing by more than 50 per cent between 2007–08 and 2011–12. However, nationally there has been a decline in social housing per capita (Australian Government 2014). Also, as the vast majority of property transfers to CHPs have been management transfers under short-term leases, CHPs have not been able to leverage their properties under management to increase stock as had been hoped (CFFR 2016). Unlike public housing tenants, tenants in community housing properties are eligible for CRA. Like public housing, community housing rents are discounted, and tenancy is more secure than in the private market. While rents charged are usually higher than public housing rents, they are often calculated to maximise the amount of CRA that tenants receive, which offsets additional costs for the tenant. As a result, tenants are generally no worse off than if they were in public housing, but CRA outlays increase (Australian Government 2014).

In 2016, Australia's social housing sector comprised around 425,000 dwellings, around 320,000 (75%) were mainstream public housing stock and provided by State Housing Authorities, around 80,000 (19%) dwellings were under mainstream community management and the remainder were indigenous-specific housing, either through Indigenous Community Housing (ICH) (3.7%) providers or were state-owned and managed (2.3%) (SCRGSP 2017).

One current move to increase affordable housing is better use of existing affordable housing stock, which is currently underutilised as a result of the changing demographics of social housing tenants towards single person households. For example, NSW has committed to increase the redevelopment of its current public housing stock through increased partnerships between the private sector and the Land and Housing Corporation (NSW Government 2015a). South Australia is taking similar steps through Renewal SA and its 'Renewing our Streets and Suburbs' program (RenewalSA n.d.).

Australian governments are displaying growing interest in SII as a means to finance a range of social programs and SII was one of the models examined by the Affordable Housing Working Group (CFFR 2016). The working group concluded that although all investment in affordable housing in essence represented impact investing, SII as such was not a preferred model for affordable housing as it was not considered adequately scalable to attract institutional investors on a large scale. However, the working party did see SII as a suitable vehicle to finance improving client outcomes through ancillary services, particularly where specific client groups are targeted.

To date government policy has been largely around exploring the possibilities for SII and development of market infrastructure to support it, and has not directly targeted SII in affordable housing. State governments have been most actively involved in investigating and promoting SII. The NSW Government has established an Office of Social Impact Investment. Actions aimed at building capacity in the sector include release of their Social Impact Investment Policy, development of the Expert Advice Exchange (EAX) to connect Non-Government Organisations (NGOs) with pro bono expert advice from leading legal, professional services, and financial firms, and development of the online Social Impact Investment Knowledge Hub (NSW Government OSII 2016). The aim is to release two new social impact transactions to the market each year. Prevention or reduction of homelessness among young people was one of the areas that the NSW Government investigated in 2015 as suitable for social impact investment (NSW Government OSII 2015), but no proposal was accepted. Other state governments have since undertaken a range of capacity building initiatives with NGOs and other market participants, including setting up offices to promote social impact investment—for example, Social Impact Investing, Queensland. The first government-initiated application of SII to a program for homelessness prevention support was the 2017 issue of the Aspire Social Impact Bond (SIB) in South Australia. Victoria is currently exploring two SIB initiatives which focus on homelessness. One (The Anglicare Consortium) focuses on young people leaving out of home care, and the second (Sacred Heart Mission) on rapid housing and intensive support for Victorians experiencing chronic homelessness and harmful alcohol and other drug use (Victorian Government 2017).

The Commonwealth Government issued its first discussion paper on impact investing in 2017 to explore both ways to enable the SII market and where it is appropriate for the Commonwealth Government to either fund (or co-fund with state and territory governments) SII (Australian Government 2017). The Commonwealth Government has recently reaffirmed its commitment to social impact investing and this is reflected in a series of initiatives. The 2017–18 Budget includes funding to work with state and territory governments to trial SII projects and to build the capacity of organisations to grow the SII market⁴. The government is prioritising investment in programs that help the most vulnerable Australians. For example, specific funding has been allocated to support the states in developing projects that accommodate young people at risk of homelessness⁵. The focus of these budget measures is well directed, but the outcomes derived will be limited by the low level of total funding (\$30 million).

The Commonwealth Government has provided a further \$63 million over four years for the establishment of a National Housing Finance and Investment Corporation (NHFIC). The NHFIC will operate an affordable housing bond aggregator to provide long-term, low-cost finance for social and affordable housing⁶. This measure should stimulate and expand the social bond markets and is a welcome step that fits with our financial model analysis.

In addition, the Commonwealth Government has introduced tax measures to address housing affordability, again with an emphasis on assistance for the most vulnerable. It has released an exposure draft of a bill that would give investors in residential premises that provide affordable housing a 10 per cent capital gains discount in addition to the existing 50 per cent capital gains

⁴ Commonwealth Treasury, 'Developing Australia's Social Impact Investing Market' (Joint media release with The Hon Christian Porter MP, Minister for Social Services, 8 August 2017).

⁵ Commonwealth Treasury, 'Developing Australia's Social Impact Investing Market' (Joint media release with The Hon Christian Porter MP, Minister for Social Services, 8 August 2017).

⁶ Commonwealth, Establishing the National Housing Finance and Investment Corporation (*Budget 2017 Fact Sheet 1.8*).

discount when assets are held for more than a year⁷. This additional concession would apply to an ownership interest held by an individual in affordable housing directly or through certain trusts (including managed investment trusts and collective investment vehicles, but excluding investments made through public unit trusts and superannuation funds). To qualify for the additional tax concession, the underlying assets must be managed exclusively by an eligible community housing provider and the affordable housing must be used for at least three years. This draft reform aligns with our proposed financial model to develop a specialist asset class around affordable housing for the vulnerable. The focus on residential housing managed by community housing providers is sound. The key question that arises is whether the additional 10 per cent discount will be sufficient to encourage individuals to invest in a potentially riskier asset class than direct investment in a residential property for leasing purposes (buy-to-let). The proposed additional tax concession would only apply if, and when, a profit is made, limiting the application and attractiveness of the incentive provided.

1.3 The affordable housing and impact investing environment

Housing is considered to be affordable when not more than 30 per cent of gross household income is spent on rent or mortgage payments (SCRGSP 2017). People who are not able to maintain affordable tenure in the private market are usually not able to access social housing until their circumstances become critical (Australian Government 2014). Nationally, the proportion of low-income renter households in rental stress (paying greater than 30% of their income in rent) has increased from 35.4 per cent in 2007–08 to 42.5 per cent in 2013–14 (SCRGSP 2017). Availability of private rental properties at a discounted market rent is currently a significantly under-developed segment of Australia's housing market and is viewed by some as the missing section of the housing continuum, with the potential to decrease demand for social housing by those on low to moderate incomes (CFFR 2016). For the vast majority of people vulnerable to homelessness with issues beyond housing stress, their only source of income comes from Centrelink payments, and even discounted market rent is typically not considered affordable. For this group, social housing provided through public or community housing providers, where rent is capped to a maximum percentage of their income, is considered affordable (Australian Government 2014).

The financing gap that exists between the low rates of return available on affordable housing investments compared to market returns available on alternative investments with similar risk profiles is seen as a major impediment to investment in affordable housing. Affordable housing providers are unlikely to readily sell a dwelling as they aim to provide tenants with security of tenure. As such, the reduced rental income (and thus returns) available from investing in affordable housing does reduce total returns available to the social impact investor. This is particularly true if a property is to be made available at a social rent rate (30%) of income, and the only income source is a Centrelink payment, which is the case for many vulnerable households. There are also significant ongoing asset management and operating costs associated with affordable housing, which can be greater where a person has complex needs and wrap-around services are not provided affectively (CFFR 2016). The Affordable Housing Working Group concluded that a successful innovative financing model would need to lower the operational and capital costs associated with the provision of affordable housing. However, it would be unable to close the financing gap entirely. Closing the remainder of the gap will require one or more of the following elements: either some form of government assistance (CFFR 2016) and lower borrowing costs than otherwise through the affordable housing bond

⁷ Treasury Laws Amendment (Reducing Pressure on Housing Affordability No 2) Bill 2017: Income Tax (Managed Investment Trust Withholding) Amendment Bill 2017 Exposure Draft Explanatory Memorandum.

aggregator and/or involvement of social impact investors in the affordable housing space, introducing a source of capital which is prepared to accept the reduced returns associated with below market rental payments. Development of infrastructure to support pooled investment in residential property would also allow investors to take a more diversified portfolio approach to residential property investment. Affordable housing investments can be combined with residential property investments offering market rental yields, creating a blended return to meet an investor's individual appetite for financial and social impact return.

In addition to the financing gap, inadequate market and government structures to support growth of the CHP sector are impeding an increase in affordable housing supply. The comparatively small scale of CHPs results in less economies of scale for providers and a perception of increased credit risk from institutional investors (Peacock 2016). The current government policy of growing the CHP sector through property leasing arrangements and transfer of property management, rather than transfer of property ownership, restricts the ability of CHPs to leverage off their housing under management and borrow funds to increase their affordable housing stock at a reasonable interest rate (CFFR 2016). Policy initiatives announced in the 2017 Commonwealth Government budget (discussed above) provide first steps in targeting these issues. The affordable housing bond aggregator and the proposed taxation incentives for investment in managed investment trusts which invest in 'build to rent' affordable housing both aim to support market infrastructure, diversify and thus decrease total risk of investing in affordable housing properties and reduce borrowing costs faced by CHPS. These structures will also facilitate market liquidity, allowing individual investors to liquidate their investment in affordable housing, and thus realise the capital component of return, without the need to sell the physical underlying asset.

Lack of national regulation of CHPs and inconsistent government policy relating to CHPs and affordable housing are also seen as barriers to CHPs being able to ensure an adequate pipeline of future affordable housing projects and attract significant private sector institutional investment for affordable housing (CFFP 2016; Rowley, James et al. 2016).

Strong governance arrangements are seen as vital to reducing uncertainty for investors, particularly in scenarios where CHPs may experience financial distress (CFFP 2016). Although the government discontinued NRAS, in part due to the lack of large-scale institutional support, research has suggested long-term commitment to NRAS would have generated large-scale institutional investment. Lack of certainty regarding government commitment to NRAS, however, undermined institutional confidence in the scheme. The scheme was found to be successful in increasing the number of suburbs accessible to income eligible households (Rowley, James et al. 2016).

One example of affordable housing development that partners the CHP sector and SII is the ShelterSA Capital Asset project. A unit trust model will be used with an aim to redevelop land and under-utilised buildings owned by not-for-profit landowners and unlock value, achieving both social outcomes and market rates of return (ShelterSA 2017). The first project will include accommodation for older people and people transitioning from homelessness, although there will not be a focus on any particular group. Some units will be sold to assist finance for new projects (interview with ShelterWA).

Superannuation fund involvement in social investment is currently non-existent. They may be restricted by the need to manage funds solely for the benefit of fund member's retirements (Black 2016). This responsibility does not preclude social impact investment, particularly where investors gain access to new investment asset classes like long-term investment in residential property. The proposed infrastructure developments of a bond aggregator for CHPs and managed investment trusts which operate in the affordable housing space both have the potential to improve access of superannuation funds to affordable housing investment. HESTA (superannuation fund) has recently moved into the SII space by setting up a \$30 million Social

Impact Investment trust, of which \$6.7 million is allocated to partner with Horizon Housing (Queensland) to finance the purchase of management rights for 995 existing affordable housing properties and the future development of up to 60 new social and affordable homes. HESTA also indicated that they were looking to expand their presence in this space, with the belief that they can create both social and financial returns (SVA 2016).

The relative newness of sub-market rental housing means investor understanding of it as an asset class is not widespread. Currently investors compare it with equity-like returns on investing in residential housing (CFFR 2016). Consistent with this, characteristics of developments built under NRAS found that to maximise the impact of the incentive, private-sector investors sought areas with potential for capital growth combined with a rent that was low enough to benefit from the incentive itself (Rowley, James et al. 2016). However, some stakeholders in the sub-rental housing sector suggest it should be seen as a debt-like investment as it provides a steady, government-backed and ongoing stream of income. Debt investments tend to require lower rates of return than equity investments because they rank ahead of equity investments on final wind up of a project. Equity can be made to look like debt (preferred shares) and debt can be made to look like equity (equity linked bonds). Regardless of the securities chosen to finance the project, there is a need for market structures which provide liquidity and allow capital gains or losses to be realised when required. While this is important, it should also be remembered that private equity investors commonly invest in illiquid assets, with a view to sale of the project assets at the end of the agreed investment period.

Large organisations are playing an increasing role in the provision of financing for philanthropic purposes. These organisations recognise that individuals are prepared to trade-off return on investment for social impact. Indeed, the literature has noted the existence of a 'warm glow' aspect to consumer giving, with more recent work showing that individuals gain utility just from the act of giving (Andreoni 1989; Crumpler and Grossman 2008; Korenok, Millner et al. 2013). Financial institutions have recognised this and taken the opportunity to broaden the range of products they offer investors. Thus, there are large organisations that make social impact investments as well as wealthy individuals and charitable institutions, where these investors accept a lower return on their investment as long as the investment generates a social benefit. In effect, these institutions rely on the idea that investment returns and social impacts are substitutes, at least for part of the investor population.

There is growing interest from financial organisations, like superannuation funds, in products that provide social impact. For example, some superannuation funds provide investment options to their investors that include social impact investments and investors have chosen to place their money with these options, regardless of the return on their investment. It seems the warm glow arising from the act of creating social impact is sufficient to compensate these investors for lower returns⁸. Financial institutions can also be involved in establishment of funds to support development of the SII market. The 'Impact Investment Ready' grants established by National Australia Bank in conjunction with Impact Investing Australia provide grants for development of Australia's SII market⁹. The proposed Impact Capital Australia envisages that a substantial portion of the \$300 million required to establish the body will be obtained from financial institutions. This body is designed to assist the market to grow in scale, providing a wholesale focus and acting as a market champion (Addis, McCutchan et al. 2015). Although these

⁸ The impact of a 'warm glow' effect has been little explored in the finance literature, though the literature addresses the impact on mutual fund performance of ethical investments, socially responsible firm investments and sustainable investments (see Bauer, Koedijk and Otten 2005; El Ghouli, Guedhami et al. 2011; Goss and Roberts 2011; Renneboog, Ter Horst and Zhang 2008).

⁹ NAB Impact Investment Readiness Fund [ONLINE] accessed 30 Oct 2017, <https://www.nab.com.au/about-us/corporate-responsibility/shareholders/impact-investment>

measures do not focus specifically on affordable housing, they do support general development of SII market infrastructure.

1.4 Research methods

This study employs (i) a targeted literature review; (ii) case study and interview methods to examine social impact investment in affordable housing and support for vulnerable households, including seniors, those with disabilities, and the homeless together with an examination of social enterprises providing opportunities for the homeless; and (iii) a financial analysis.

The literature review examines government policy and financial mechanisms through which affordable housing and support for vulnerable households is provided in Australia, and potential forms of impact investment vehicles. Characteristics of vulnerable household populations and their needs around both affordable housing and support are identified. Four vehicles for gathering funds into a pool to facilitate impact in this space are described: private equity, mutual funds, Social Impact Bonds (SIBs) and social impact loans.

1.4.1 Case studies and qualitative evidence

Case studies, semi-structured interviews and a review of grey literature were used to obtain perspectives from relevant stakeholders around impact investing in affordable housing, support for vulnerable households and social enterprise. These examine features of existing arrangements, opportunities and barriers to further SII.

Three case studies are supported by stakeholder interviews that explore SII initiatives associated with homelessness support, affordable housing and social enterprise:

- **Aspire SIB (SA).** The SIB is being used to fund a 'housing first' intensive support program for the chronically homeless. Interviews were conducted with representatives of the organisations delivering the program (Hutt St. Centre and Housing Choices SA), Social Ventures Australia, and relevant SA government departments.
- **HomeGround Real Estate (Victoria).** A not-for-profit real estate company operated by Launch Housing, which acts as an intermediary for micro-impact investors to provide affordable rental accommodation.
- **STREAT.** A social enterprise that provides employment opportunities for the disadvantaged, including the homeless and which has utilised SII funding.

Issues around SII to fund housing and support for the elderly and people with disabilities were explored via stakeholder interviews in conjunction with a literature review. Interviews were conducted with representatives of Foundation Housing, Capital Asset Developments, Grace Mutual, Centre for Public Impact, BlueChip CHP, Impact Investing Australia, ShelterSA and Homeground.

1.4.2 Modelling of financial return and risk

Financial analysis of capital gains and rental return data provides important new information on the level and distribution of returns that residential property portfolios have generated over the last decade. This includes the impact on total return and risk of setting below market rents. The literature points to a portfolio approach being most appropriate for analysis of risk and return associated with the pools of affordable housing assets which would underlie the securities examined, and this is the approach taken for the financial analysis.

Data is drawn primarily from a new dataset, the Suburb ScoreCard, Core Logic RP data supplied to the University of Western Australia by SIRCA. This is supplemented with taxable income data obtained from the Australian Taxation Office (ATO) and location data obtained

from the Australian Bureau of Statistics (ABS). Careful modelling of total housing returns at the postcode level has not been attempted in the Australian literature, but this modelling is critical to understanding the risk and return that particular bundles of residential properties can generate.

The Core Logic data contains postcode level rolling annual data for the period 2001 to 2014, including property sales plus advertised rental data. Property sales data provide an initial sample of 65,724 annual return postcode/year observations (36,935 for houses and 28,789 for units) over the 14 year period. The mean sales price was calculated for each of these financial years and used to calculate annual capital gains, and for the initial estimation of the mean capital gains return and return risk over this period.

There is no rent data for 2000 to 2003, and it is limited for 2004. Subsequent analysis of rental and total return focuses on the period 2005 to 2014. Over 2005–14 advertised rental data are only available for 73 per cent of the year-postcode selling price observations for houses and 87 per cent of selling price observations for units. Two methods are used to obtain median weekly rent for calculation of rental return and total return. In the first method, analysis is limited to those postcode areas where both median weekly rent and selling price are available. In the second method, median weekly rent is averaged at the broad geographical location level (defined below). Rent yield is then calculated at the broad geographical location level and allocated back to all postcodes that fall within the location class. Regardless of the method used to identify rents, rental yield is calculated by multiplying the median weekly rent for the year ended June by 52, which is then divided by the mean selling price for the previous year.

Twelve month returns are aggregated to report mean capital gains, rental and total return and risk characteristics by geographical location: Capital city, Major regional city, and other (rural areas and small towns). The underlying assumption is that a pool of assets in a particular postcode location would reflect the pool of properties for sale in that area. The postcode level residential property data are matched with per capita taxable income classifications at postcode level to model risk return combinations achievable for different (equal-sized) socio-economic groups: highest, middle and lowest taxable income tertiles. Return and risk characteristics are also reported by property type; house or unit.

Risk is measured as total volatility of returns via the return standard deviation (sd). The Sharpe ratio presents a measure of risk adjusted return: representing the average return earned in excess of a risk-free rate per unit of volatility (sd) or total risk. The Sharpe ratio is used because of the limited time series data available and its relevance when investors are poorly diversified or are sensitive to total risk. While high net wealth philanthropists might be well diversified, it is less clear that individual, private company shareholder or self-managed super fund impact investors are well diversified.

The baseline analysis is then adjusted to reflect the impact of discounts to rental yields, ranging from 100 per cent to zero, and for the effect of transaction costs and taxes. This analysis draws upon the work of the Department of Human Services (2010) and unpublished work by researchers at RMIT (see Appendix B) in identifying average taxes and costs incurred by Australian resident taxed investors investing in the Melbourne residential property market. It is assumed that the costs reported for Melbourne provide a reasonable approximation of the costs more generally across Australia, given the tendency for least cost investment pressure to remove extreme differences in transaction costs that occur from time-to-time across Australian cities.

Two models are used. First, properties are assumed to be held indefinitely and the 12-month return reflects only those costs incurred in managing the property. Second, the residential property is purchased at the start of the 12-month return period and sold at the end, so annual return also includes purchase and selling costs. Scenarios are examined for four groups of Australian residential property investors, all of whom face transaction costs: (i) philanthropists

who are not taxed, (ii) individuals with an income tax rate of 47 per cent, (iii) corporations with an income tax rate of 30 per cent, and (iv) superannuation funds with an income tax rate of 15 per cent. See Section 3.2 for further detail of the method used to model return and risk.

The return, risk profiles estimated through this financial modelling are then discussed in the context of the mutual fund that provides superannuation products and a private equity firm investing in residential property, allowing for a range of rental discount and transaction cost scenarios.

2 Impact investment, housing and vulnerable households

Although internationally affordable housing is identified as a target by only half of impact investors, it is the largest investment area, accounting for 22 per cent of total assets under management.

A range of market vehicles is required to facilitate SII for vulnerable households. The government is currently assessing a bond aggregator model to access funding for affordable housing. We examine four other market vehicles with potential to raise SII funding to meet the unique needs of vulnerable populations:

- Private capital impact investment entities that invest in affordable housing projects and work closely with project managers. The holding period would be approximately ten years, with assets then on-sold to other market participants including mutual funds. Projects could be relatively small (\$20 million to \$30 million).
 - Impact Investment Mutual funds (listed or unlisted) have the ability to mobilise a large amount of capital. The mutual fund could be listed on a stock exchange or set up as a retail or wholesale fund. Fund units could be sold to individual investors or institutions, including superannuation funds.
 - Social Impact Bonds (SIBs), with payment of a return based on savings (typically by government) if specified social outcomes (e.g. tenancy sustainability targets, or provision of accommodation at specified cost) are achieved. SIBs can also be used to fund social enterprises. Typically for smaller funding amounts.
 - Social impact loans for housing at subsidised rates. Government payments to individuals, or through schemes such as the NDIS, could be passed onto the lender to meet interest and principal costs.
-

2.1 Institutional impact investment

2.1.1 Across the world

Most impact investing literature is located on the web (grey literature), with little reported in refereed journals. The grey literature suggests that social impact investing is an important source of funds for philanthropic ventures and one of the more important areas for investment is the provision of housing. While the Annual Impact Investor Survey showed that a smaller number of impact investors invest in housing than other areas such as health care (housing was ranked fourth, 84 of 205 respondents), it represented the largest proportion of assets under management (22%) (Mudaliar, Schiff et al. 2017).

The Annual Impact Investor Survey (Mudaliar, Schiff et al. 2017) shows considerable growth in impact investing, with survey respondents reporting USD 114 billion in impact investment assets in 2016. There were 7,951 impact investment transactions in 2016 across the 205 survey respondents with mean (median) deal size of USD 111 million (USD 12 million). While 67 per cent of respondent institutions were fund managers (accounting for 54% of assets under management (AUM)), foundations are the next most numerous, accounting for 14 per cent of

the sample but only 4 per cent of AUM, followed by banks and Diversified Financial Institutions (DFI) (7% of the sample, 20% AUM). Pension funds accounted for a minor segment of survey respondents (3%), but 19 per cent of AUM (Mudaliar, Schiff et al. 2017).

Investment objectives of surveyed organisations vary considerably. Fund managers, private debt investors and private equity investors usually require a risk adjusted market rate of return. However, 16 per cent of survey respondents were looking to earn impact investment returns that just preserved capital and 18 per cent were prepared to accept returns that were lower than risk adjusted market returns.

Recent international developments in the impact investing environment with potential relevance for affordable housing are the advent of Community Development Financial Institutions (CDFIs) in the US. These organisations are required to direct at least 60 per cent of their financial products and services to qualifying end-users, including low-income or minority households. CDFIs can be non-profit loan funds, regulated banks, credit unions, or venture capital funds. The 13 CDFIs, which participated in the Annual Impact Investor Survey, reported USD 5.4 billion under management, of which 34 per cent was invested in housing. They largely invested through private debt (63% of AUM) and generally didn't participate in the public debt or equity markets (Mudaliar, Schiff et al. 2017).

Blended capital structures are being used to pool capital into 'stacked' structures offering different risk-return options, such as junior tranches, senior tranches, and first-loss capital. This type of structure has potential for affordable housing for vulnerable households, as it would allow more risk-averse investors to participate in this space, along with those who are more willing to take on risk or accept lower returns. One example of the use of blended capital is the Living Cities Blended Catalyst Fund, a USD 31 million debt fund which blends commercial and philanthropic capital and provides loans, lines of credit, and equity investments at below-market rates to organisations and local governments addressing social issues in urban communities (Living Cities 2016).

2.1.2 In Australia

The opportunities for impact investment in Australia are considerable. In 2013 about AUD 2 billion was invested in Australian impact investment, which is expected to grow to AUD 10 billion by 2018, possibly rising to AUD 32 billion in the 2020s (Kurdian, Clark and Zancanaro 2016). A recent innovation in the development of affordable housing in Australia is the NSW Government creation of an AUD 1.1 billion fund to foster private/public partnerships to supply affordable housing. As discussed in Chapter 1, state governments are putting in place structures (e.g. the NSW Office of Impact Investment) to facilitate social impact investment activities, and a small number of SIBs have been issued, including the Aspire SIB to fund a tenancy support program for the chronically homeless. The Australian Government has also announced a number of initiatives to develop the SII market generally, as well as SII into affordable housing.

The recent 2016 Investor Report (Dembek, Madhavan et al. 2016), covers investors responsible for managing more than AUD 333 billion of Australian funds under management. Although not a primary theme, some investment is devoted to addressing issues to do with housing and homelessness. Most active investors prefer investment in real assets though there is also evidence of investment in social impact bonds (pay for performance) and private equity including venture capital. While most funds expressed an interest in earning market rates of return, there were some considering below market rates of return. Perhaps one of the key findings in the survey is the existence of a disconnect between what Australian investors appear to require and what impact investment projects can provide. As was pointed out in a recent Senate report, there is need for education on both sides of impact investing; investors and recipients (Senate 2011).

There are many difficulties with the creation of impact investment in the Australian setting. Some organisations expect government to convert non-commercial returns attributable to impact investment into a commercial return, through various government support mechanisms, including provision of guarantees and access to assets at little or no cost (Lawson, Berry et al. 2014; Purves 2016). Other organisations appear more interested in finding ways to provide investors with access to impact investments while providing at least some return on their investment, even if this return is not fully commensurate with the risk involved (SVA 2015). Indeed, the introduction of government support such as government guarantees could result in a situation where the social impact investment is no longer attractive to social impact investors. Social impact investors do not require government intermediaries or guarantees to attract their investment. Further, given recent government reticence to commit to housing the homeless and the vulnerable, a bond scheme like that set up in Europe for affordable housing, which has ongoing government support (Lawson, Milligan et al. 2012) may not be appropriate in Australia unless government is prepared to make a long-term commitment in this area. Impact investing will not suit all investors in Australia and there is some way to go in educating Australian investors interested in impact investing (Senate 2011). Nevertheless, there are organisations in Australia willing to act in this space without complex and costly government intervention and this project speaks to these organisations in particular.

2.1.3 Impact investment instruments

While a wealthy individual might be able to fully fund a small project, it is generally necessary to accumulate sufficient cash from a range of sources in order to finance larger projects. This is generally achieved through the sale of financial instruments like debt or equity to interested parties. The 2017 Annual Impact Investor Survey (Mudaliar, Schiff et al. 2017) provides some detail on the sorts of financial instruments used for social impact investments (see Table 1 below).

Table 1: Use of social impact investment instruments

Instrument	Per cent of assets under management (USD 113.7 billion in total)	Number of respondents using each instrument (maximum of 209 respondents)
Private debt	34%	113
Real assets	22%	33
Private equity	19%	159
Public equity	14%	27
Equity-like debt	2%	55
Public debt	5%	21
Deposits and cash	3%	34
Pay for performance (social impact bonds)	0.2%	16
Other	2%	18

Source: Mudaliar, Schiff et al. 2017.

Note: almost half of the investment in real assets, accounting for 25 per cent of the assets under management, is driven by one very large direct investment by one institution.

Private debt and equity are both important classes of investment. They could be purchased by large institutions or wealthy investors directly or by the likes of private equity firms; partnerships that are used to gather funds together for the purpose of investment in private projects. While private equity might be used in the start-up, venture or growth stages of impact investing, private debt is generally used to finance the growth stage of a project or to finance more mature private companies (Mudaliar, Schiff et al. 2016). The survey also shows that while private debt is used for micro-finance type projects in emerging economies, private equity is more likely to finance other financial services or housing in developed economies.

Impact investment generally applied to the purchase of real assets and the majority of the capital invested was for housing, private and commercial real estate and property. This suggests the potential for this type of investment to be directed at affordable housing. It is possible that the choice to invest directly in real assets rather than rely on interposed legal entities arises because it is simpler to manage real asset acquisitions. Perhaps, direct investment best suits property because of the need for both scale and flexibility.

Investment via public traded equity or debt is fairly limited though it also is important to note that the respondents to this survey were not much involved in social impact bonds, which have only been in place in their present form since 2010 (Gustafsson-Wright and Gardiner 2015; Gustafsson-Wright, Gardner et al. 2015). Of the 31 social impact bonds in place by March 2015, the capital committed ranged from USD 148,000 for a Portuguese bond through to USD 24.5 million for a bond in the US. Very few have reached completion by the date of this report, though some have failed to achieve agreed outcomes resulting in impact investors failing to earn a return on their invested capital. The fairly small number of social impact bonds is

perhaps not surprising given the nature of these agreements. The investor in a social impact bond may be required to put forward money for the provision of a service, though there may be no return unless previously agreed social impact objectives are achieved (Gustafsson-Wright, Gardner et al. 2015). Traditional Australian investors may find this choice unpalatable (Senate 2011). We explore social impact bonds a little more in the following section.

2.2 Impact investment models

2.2.1 Private capital in the form of private equity investment in a social business

Given the importance of private capital, particularly private equity, in housing-related impact investment activity (Section 2.1.3), there is potential for this to be directed into affordable housing for vulnerable households including the homeless. These entities would identify, sponsor and invest in targeted housing projects and can work closely with the project managers and financiers to ensure project success.

Private capital is generally supplied by private equity funds set up as limited partnerships. While private equity firms take on the role of general partners, large institutions and wealthy individuals agree to supply capital as limited partners. The partnership agreement generally covers a period of around ten years with an initial investment period of five years when suitable investments are identified. Limited partners supply the necessary funds for acquisition and the general partners acquire the assets. A further period of five years (harvesting period) occurs, during which the general partners manage the investments, return income from the investments and liquidate the investment at the end of the period. Liquidation occurs either through asset sale, listing via an initial public offer or sale to other private equity investors as a secondary buyout.

There are two broad classifications of private equity providers—buyouts and venture capital. In financial markets, buyout firms usually acquire 100 per cent of the equity of established firms that are performing poorly with investments of \$100 million or more and they often borrow in order to complete their acquisitions. Venture capital firms acquire 50 per cent or less of the equity of new firms with growth potential with investments of \$10 million or less. Borrowing is rare with these investments.

In the case of private equity investment in residential property, the properties would be acquired during the investment phase of the project and returns would be earned over the harvest period. These projects could be relatively small (\$20 to \$30 million) in nature. The returns would be made up of both rental returns and capital gains on sale of the residential properties. In an impact investing sense, private equity investment might take the form of 100 per cent ownership of the residential properties acquired for the project. A portfolio of properties would be identified and acquired by the general partners in the firm over the first five years of the project. Over the following five years rent would be collected and distributed to partners. At the end of the project (generally ten years), the properties could be sold individually or pooled together and sold as a portfolio. The funds generated on liquidation of the portfolio are returned to the partners according to the limited partnership agreement.

At the end of the project the residential properties could be sold to:

- individuals, including those who may have lived in the houses over the period of the private equity project
- real estate investment trusts (mutual funds) or companies financed by the public, or the private sale, of units or shares depending on whether the properties are held as assets in a trust or company

or

- other private equity funds in the form of a secondary buyout.

2.2.2 Mutual funds with explicit social impact targets

Impact Investment Mutual funds (listed or unlisted) are set up specifically to acquire specialist housing that offers accommodation to homeless or vulnerable households. Such housing could be managed by community housing providers with linked tenancy support and social support partnerships financed by government.

Units in the fund would be sold to social impact investors (those seeking both social impact and financial return), the general public, and to institutional investors (both with explicit social purpose goals and those without). There is the potential for a mutual fund to have a blended capital structure, with different classes of units having different risk/return trade-offs. The key characteristic of mutual funds is their ability to mobilise large amounts of money for investment purposes.

These funds might take the form of private retail funds operating within a trust structure with units in the trust sold by financial institutions to individual investors. These investors might want to diversify their investment portfolios through investment in mutual funds investing in projects that have a social impact. The mutual fund could be listed on a stock exchange as an exchange traded fund (ETF) or it could be set up as a retail or wholesale fund.

In the case of an ETF, individuals could then buy and sell units on the stock exchange at little cost. Larger impact investors, like superannuation funds, will seek out investments in the wholesale mutual fund market. These investment vehicles tend not to be listed on stock exchanges, are considerably larger than ETFs or retail funds, and are managed by financial institutions or by professional management companies.

The cash generated from the issue of units in the trust would be used to acquire/build special purpose accommodation for the homeless and the vulnerable. Rental income paid by those living in the accommodation would cover costs and provide a return to unit holders with the possibility of a government or philanthropic rental top up if required to ensure rental payments meet social impact investor needs.

Mutual funds are generally set up as trusts whose assets are managed by trustee company directors for the benefit of the beneficiaries (the unit holders). While mutual funds might build up their own residential property portfolios, it is also possible for these funds to acquire portfolios created by private equity investors when these firms liquidate their investment at the end of their harvest period.

2.2.3 Social impact bonds

Social Impact Bonds (SIBs) provide a pay-for-success structure where investors receive a return if the project being financed achieves specified social outcomes. While clearly representative of literature, we draw on the NSW Department of Premier and Cabinet's definition of a social impact bond to identify its key elements.

'A social benefit bond (also known as a social impact bond) is a financial instrument that pays a return based on achieving agreed social outcomes. It is a special type of payment-by-results contract, where private investors provide working capital to a service provider to deliver an intervention. If the provider achieves the agreed social outcomes, this can result in savings to the government in the form of future avoided costs. Part of these savings is then used to repay the upfront investment plus a financial return.'¹⁰

¹⁰ <http://www.osii.nsw.gov.au/initiatives/social-benefit-bonds/>.

In relation to vulnerable households, SIBs could be used to acquire or build affordable housing, deliver a tenancy support program, or provide funding for a social enterprise, which supports vulnerable households. Potential outcomes include tenancy sustainability targets, provision of required accommodation at specified cost, improved health and justice outcomes or increased employment opportunities. SIBs to date have typically been used to fund delivery of support programs. The return is based on the savings to government achieved through the project. The participants in this type of security include the bond issuer who issues bonds to private investors and passes the funds raised from the issue onto the service provider who acquires or builds the required housing, or delivers the tenancy support program. The government makes performance-based payments to the investors. The Aspire SIB in South Australia (see Chapter 5) is an Australian example of an SIB used to fund a tenancy support program for the chronically homeless. SIBs issued to fund social enterprise are likely to have a different structure and return trigger.

Governments around the world are interested in social impact bonds. The United States (US) Federal Government is endeavouring to remove legislative restrictions on social impact bonds¹¹. There is also evidence of individual states in the US easing the way for the introduction of pay-for-success (social impact bonds), particularly in states like New Jersey (Arieta, Cervantes et al. 2013). As discussed in Chapter 1, there is also considerable work evident in Australia at the state government level, and more recently the Commonwealth Government level. For example, the NSW Government has put considerable effort into the development of social impact bonds and it is now possible to download sample standard form documents for the development and implementation of social impact bond agreements¹². Other state governments have also put considerable effort into capacity building in government, not-for-profit and finance sectors. These developments are critical to the more general take up of social impact bonds as access to standardised well-drafted documentation has proven to be a key element in the development of financial markets.

Social impact bonds (or pay-for-success financing in the US or social benefit bonds in other countries) account for a considerable literature on the web, although the actual investment in these contracts is fairly limited (Gustafsson-Wright and Gardiner 2015). A recent review of social impact bonds identifies 31 (51) social impact bonds issued over the period from March 2010 to March 2015 (to October 2015) (Gustafsson-Wright and Gardiner 2015; Gustafsson-Wright, Gardiner and Putcha 2015). The US Chronic Individual Homeless Pay for Success Initiative (starting in 2014) and the UK Fair Chance Fund (starting 2014) both deal with homelessness. Nevertheless, social impact bond investment is growing.

It is important to note that the equity-like pay off structure described in the definition above is not so evident in the US where pay-for-success bonds may look more like traditional bonds with regular coupons rather than the all or nothing payoff that accompanies social impact bonds in the UK (Gustafsson-Wright and Gardiner 2015; Gustafsson-Wright, Gardiner et al. 2015). Regardless, social impact bonds are designed to encourage private financiers to supply funds to efficient service providers who then generate a service that has a positive social impact. This allows government to pass complex or difficult social interventions over to those better able to manage them.

¹¹ <https://www.whitehouse.gov/omb/factsheet/paying-for-success>.

¹² <http://www.osii.nsw.gov.au/news/2015/07/01/sample-documents-for-social-benefit-bonds-now-available/>.

There are both benefits and challenges attached to social impact bonds and a recent Senate Economics References Committee report provides some insight into these issues (Senate 2011). For example, some of the benefits attributed to social impact bonds include:

- Focusing on incentives required to manage difficult social problems (outputs) rather than focusing on inputs.
- Encouraging development of new interventions in managing social problems or an application of existing interventions to new problems.
- Attracting new sources of funds.
- Promoting evidence-based action leading to a better understanding of the issue to be solved.
- Allocating resources to where they can achieve the greatest impact.
- Sharing risk between government and the community, in particular, impact investors.
- Some of the challenges for social impact bonds include:
 - Avoiding the tendency to do too much.
 - Eliminating bias in the measures of performance that are relied upon to identify impact.
 - Needing a clear statement of what is a saving for the government when attempting to identify impact.
 - Avoiding unintended consequences, such as crowding out already successful though less costly alternatives.

2.3 Measurement of social outcomes and financial return

Impact investment vehicles, including pay-for-results structures such as SIBs, require robust data on the cost of the program under consideration, measurable program outcomes, and potential costs and savings associated with program outcomes. Availability of such data is imperative for growth of the SII market. Although there is a growing body of Australian evidence around these issues in the homelessness space, development of robust measures is still in its infancy and the lack of publically available robust data, and the cost of developing it, is noted by many market participants, both internationally (Mudaliar, Schiff et al. 2017) and in Australia (CFFP 2016 and see discussion Chapter 5), as a major barrier to market development.

This issue is of particular importance when considering SII to fund programs designed to support vulnerable households to access and maintain accommodation, where a pay-for-results type structure is most likely. Payments to investors are typically based on program outcomes and the associated savings to government, which need to be defined and measured. Although government and service providers have recently placed greater emphasis on evaluation of homelessness program outcomes, such evaluation is sporadic and often not specifically funded (Adams, Flatau et al. 2015). Outcome measurement is also complicated by the requirement to determine a counterfactual—what would have happened if this support were not provided—by the need to assess outcomes post the program support period, and the lack of publicly available unit cost data to assess the economic impact of outcome changes.

In spite of these difficulties, there is a growing body of evidence which suggests that homelessness support is associated with a reduction in the use of non-homelessness services; including health and justice services. In particular, large cost offsets are typically associated with reduced use of high cost institutional health services such as days spent in hospital and days spent in psychiatric care. There is little evidence in change in employment and the cost of welfare payments (Conroy, Bower et al. 2014; Johnson, Kuehnle et al. 2014; Zaretzky, Flatau et al. 2013). The value of cost offsets reported in these studies is program dependent. For the

majority of programs studied it is possible to conclude that cost-savings from reduced use of non-homelessness services at least in part offsets the cost of providing homelessness support. However, in only limited cases has the conclusion been drawn that the cost offsets clearly completely offset the cost of support (Wood, Flatau et al. 2016). As SIB payments are typically triggered only if the value of the economic impact of the program is greater than the cost of delivering it, the evidence suggests that only a limited number of homelessness support programs would be suitable to finance using a SIB and the government will continue to have an important role to play in providing these programs.

Until recently, in Australia primary data on homelessness program outcomes were only available through administration of a survey, which had significant limitations. The recent advent of the use of linked administrative data in the domains of health, justice and Specialist Homelessness Services promises to make this data significantly more accessible, providing access to a larger sample population over a longer time period, and more robust data (Wood, Flatau et al. 2016). Linked administrative data were used to support the expected pay-off structure of the Aspire SIB, and stakeholders in the SIB cited development of the infrastructure to obtain this outcome data as a major benefit of the SIB process (see Chapter 5).

2.3.1 Social impact loans

Social impact loans could be in the form of patient loans that do not impose a particular deadline on the repayment and/or loans with subsidised rates offering home buyers low cost access to housing. These loans could also be in the form of bonds that are able to be traded on the market. This final form of impact investing could be useful for the provision of housing where government payments to individuals are passed onto the lender to meet the interest and principal costs of the loan over the life of the project. Alternatively, the loan could be structured so that repayment is expected at maturity. Some form of subsidy or guarantee may be needed to make these bonds attractive for social impact investors. The Commonwealth Government has already considered this form of finance for funding affordable housing, following a model set up in the UK.

2.4 Who are the vulnerable housing populations?

Vulnerable housing populations are heterogeneous. Where housing affordability is the major issue, impact investing can play a role in increasing the stock of affordable accommodation options. However, evidence suggests that homelessness not simply a matter of 'homelessness', but is also strongly associated with mental health and alcohol and drug issues and disability, leaving institutional environments, and family breakdown including domestic violence (AIHW 2014). Affordable housing for vulnerable people with high needs is likely to have different risk/return characteristics to that of the wider vulnerable housing population and the risk/return will be subject to availability of tenancy support programs.

Not all people who are affected by these vulnerabilities will face the prospect of homelessness. Many people will have the financial resources that provide them with other options, while others may be able to rely on their family or community for support. SHSs provide support for those who do not have such resources. Of those approaching SHSs in 2015–16, just under half (44%) were homeless. Housing affordability was cited by 11 per cent of all clients as the primary reason for seeking assistance, and by 24 per cent as a reason for seeking assistance. The top three primary reasons for seeking assistance were domestic and family violence (26%), housing crisis (23%) and financial stress (12%) (AIHW 2017). Overall, of the 34.3 per cent who identified as requiring long-term housing, only 5.3 per cent were given it.

Populations identified as vulnerable in this study are:

- **People primarily citing financial stress and/or housing crisis.** This group generally presents without other contributing issues, and are less likely to have a history of homelessness (AIHW 2014).
- **Indigenous people.** This group are over represented in the homelessness population and the rate of overrepresentation continues to grow. In 2015–16 Indigenous people were 9.1 times more likely to use SHSs than non-Indigenous people (AIHW 2017). Overcrowding due to kinship-related issues is a contributing factor to Indigenous homelessness. Affordable housing for this population should recognise the reality of kinship obligations and the associated tenancy management issues (Birdsall-Jones, Corunna et al. 2010).
- **People experiencing domestic and family violence (DV).** Of this group, 38 per cent of those seeking SHS assistance cited DV as a reason. This group consists mostly of women (63%) and children (29%) (AIHW 2017) with DV being a major cause of homelessness among women (AIHW 2014). Over half (61%) were at risk of homelessness and most of these (42%) were in private rental accommodation at the start of support (AIHW 2017).
- **Young people, including those leaving home due to family and domestic violence.** While the overall rate of young people presenting alone has been decreasing, the rate of Indigenous young people presenting alone has been increasing, from one in five (21%) in 2011–12 to one in four (25%) in 2015–16. The most common reasons for seeking SHS assistance in 2015–16 were domestic and family violence (15%) or housing crisis (24%) (AIHW 2017).
- **People with complex needs such as mental health and/or alcohol and drug issues.** This group often has a long history of being in and out of homelessness (AIHW 2014). Clients with a current mental health issue are the fastest growing client group within the SHS population, growing at an average rate of 13 per cent per year since 2011–12 (AIHW 2017). They are more likely than other homelessness populations to require support to successfully access and/or maintain a tenancy.
- **People with a disability.** People with a disability on low incomes are constrained both in public housing and the private rental market (Productivity Commission 2011) and have more complex needs than the average homelessness client (AIHW 2017). The AIHW defines people with a disability as those who identified that they have a limitation in core activities (self-care, mobility and/or communication) and who also reported that they always or sometimes needed assistance with one or more of these core activities. In 2015–16 there was a 12 per cent increase in the number of clients; an estimated 10,000 people with disability sought assistance from SHSs. Housing crisis was the most commonly cited reason for seeking assistance (22%). Twice as many people with a disability seeking assistance were over 55 compared with the general SHS population (AIHW 2017).
- **The aged who have low incomes and have insecure housing or are homeless.** Often these people have been renting and rental in the area they have been living becomes unaffordable. People aged 55 and over comprised 8 per cent of all people accessing SHSs in 2015–16, SHS use by this group is growing at over twice the rate of the general SHS population, with an average annual growth rate of 9.5 per cent each year since 2011–12. Since 2011–12, the number of Indigenous older clients has grown at an average annual rate of 16.8 per cent each year. Older clients are also requiring longer support periods, suggesting that they are presenting with potentially more complex issues taking longer to resolve and are having greater difficulty in finding suitable housing. The main reasons for seeking assistance were housing crisis (21%), domestic and family violence (18%) and financial difficulties (17%), with 33 per cent requiring long-term housing and 32 per cent requiring assistance to maintain a tenancy (AIHW 2017).

2.5 Housing supply models to meet the needs of vulnerable populations

The traditional approach in Australia has been for governments to fill the housing gap that existed for the vulnerable, with some not-for-profit involvement. There has been considerable activity in this space in Australia, with a move towards the use of hybrid not-for-profit organisations that appear to blend public, community and market goals and away from government ownership and management of the housing needs of the vulnerable (Milligan, Hulse et al. 2015). Yet, there are considerable difficulties for organisations working in this space mainly due to rapidly changing government regulation and policy. The difficulty that not-for-profit organisations, responsible for the provision of housing for the vulnerable, face is that they are tasked with providing a costly service for individuals who cannot afford to pay for it. Government, philanthropy and impact investing provide possible sources to finance the construction of housing for the vulnerable. This is a critical problem for the not-for-profit organisations responsible for housing the vulnerable. They have unique skills for helping them, but have had little control in the past over the supply of housing available.

Two recent reports focus on the financing of housing for the vulnerable (Lawson, Berry et al. 2014; Lawson, Milligan et al. 2012). The first recommends the issue of housing supply bonds to the financial market to finance housing for the vulnerable with the rental payments used to meet coupon payments. This is further developed in the second report which recommends the creation of an Affordable Housing Finance Corporation as an intermediary in a market for securities used for the financing of housing for the vulnerable. In this later report the importance of intermediaries and the impact of government guarantees to keep costs of financing down are specifically discussed. Both these solutions require considerable government involvement.

There has been a considerable push towards using market mechanisms to further develop the ability of these organisations to provide housing for the vulnerable. This trend is also apparent in the US, United Kingdom (UK) and the Netherlands as indicated in a recent study by Milligan, Hulse et al. (2015). This study focuses on some of the key organisations operating in the Australian sector with a view to better understanding how they behave. Their finding is that these entities are 'professional, entrepreneurial, setting their own priorities (rather than implementing government priorities) and imbued with a private sector (rather than public sector) ethos' (Milligan, Hulse et al. 2015). These characteristics are critical to dealing with a rapidly changing regulatory environment that has existed in Australia, particularly with respect to housing and rental regulation and policy. Perhaps of greatest concern is the growing shortage of affordable private rental housing noted in this recent report. While there is evidence of managers attempting to develop closer links with government to better deal with the rapidly changing regulatory environment, there is also acknowledgement of the need to grow and better manage the pool of housing available to the vulnerable in Australia at present. The pressures for change in housing providers are not just evident in Australia, with evidence of similar pressures in the US, the UK and the Netherlands (Milligan, Hulse et al. 2015), though there is some cross-country variation. An important change in attitude is found in the UK with a focus on the creation of liveable neighbourhoods, though a similar attempt to change emphasis in Netherlands appears to have failed.

One of the most recent reports in this area is that of the Council of Federal Financial Relations (2016). This focuses on the delivery of affordable housing for rental housing, as distinct from increasing the level of affordable housing ownership. This deals with four models—housing bond aggregator, housing trust, housing cooperatives and social impact investing bonds—and consequently is particularly relevant to this report. Its recommendations include the creation of a financial intermediary to aggregate the funds required to meet the needs of affordable housing providers through the issue of bonds to the financial markets (Lawson, Berry et al. 2014; Lawson, Milligan et al. 2012). More recently, this is the model proposed by the Australian

Treasury in the National Housing Financing and Investment Corporation Consultation paper (Commonwealth of Australia 2017). In this financing model, the intermediary goes to the market and raises funds through the sale of long-term bonds. The funds are then passed onto affordable housing providers to finance the construction of suitable housing. A similar model operates in the UK and presently operates under the protection of a UK Government guarantee. It is argued that the guarantee keeps interest rates low, which ensures that rental payments generated by the properties meet regular coupon payments and eventual repayment of the bond principal on maturity of the bond. There is considerable government interest in this particular model at present (Lawson 2017), though there is also some support for the use of housing trusts. Housing cooperatives and social impact bonds are considered to lack sufficient scale to meet affordable housing needs.

While this model may be suitable for affordable housing, it is not clear that it is appropriate when attempting to provide housing for the homeless and vulnerable. While the homeless and vulnerable are a much smaller group of tenants, they have quite different and considerably more complex needs compared with those looking for affordable housing.

2.6 Policy development implications

Given internationally social impact investment in affordable housing accounts for 22 per cent of total assets under management, there may be potential to expand the SII market in affordable housing in Australia.

A number of market vehicles should be further explored by government, including determining whether and how to overcome existing barriers to these being implemented at scale in Australia to address the housing needs of vulnerable people. These include:

- Private capital impact investment entities which invest in affordable housing projects and work closely with project managers
- Impact investment mutual funds (listed or unlisted) to mobilise a large amount of capital
- Social impact bonds (SIBs), with payment of a return based on savings (typically by government)
- Social impact loans for housing at subsidised rates (such as through a bond aggregator model).

To enable these opportunities, however, government needs to consider a number of implications. Some of the key implications include:

- A viable SII market would require ongoing stable assistance by government to help close or minimise return gaps, especially because of (i) the low incomes of very vulnerable tenants; (ii) the finance gaps faced by CHPs; and (iii) the limited number of impact investors.
- Many financing options are more suited to being attached to housing assets, rather than services or supports.
- SIBs are appropriate for funding service or support. However, high quality social impact measurement must be available and current evidence shows that the outcomes from very few support programs are offsetting the full costs of property and tenancy support.

There are key vulnerable groups who need varying levels of support to achieve safe, stable and secure housing. People primarily citing financial stress and/or a housing crisis who do not have additional complex needs are likely to need minimal tenancy support and could benefit from a housing-only impact investment. However, existing research and use of specialist homelessness services demonstrates that many Indigenous people, people experiencing domestic and family violence, young people, people with complex needs such as mental health

and/or substance use disorders, people with a disability and older people are likely to require not just housing, but also tenancy support.

3 Case studies

The small number of Australian SII examples show that SII has a role to play in affordable accommodation and support for vulnerable households, and in funding social enterprises which assist with employment opportunities.

A number of different structures have been used to best suit the relevant project's needs, but funding thus far has been on a small scale.

Common themes include:

- Impact investing is predominantly viewed as part of a diverse funding mix.
 - The pool of impact investors in these examples in Australia are currently prepared to take lower returns and accept illiquidity to achieve social impacts aligned with their goals.
 - SII is currently complex with high transaction costs for small amounts of capital.
 - Not-for-profit market specialists and pro-bono services are important in this fledgling stage of the market, providing advice, learnings and helping to mitigate high transaction costs.
 - Increased availability of robust data, education, capacity building, growth of market size, and reduction of fixed costs are all seen as important to future SII market development.
 - Government has an important role in the development of market infrastructure and regulatory environment, for example, taxation policy.
 - Stable government policy is important to provide a level of certainty for organisations contemplating SII, or raising SII funding.
-

There are only a small number of Australian examples of impact investing associated with affordable housing and assisting vulnerable populations into housing. There is also evidence that unemployment represents a major barrier to securing stable and affordable housing for vulnerable populations and that impact investing represents a potential means of financing social enterprise, especially in the start-up phase.

This chapter examines three case studies where SII has been used in Australia: (i) STREAT, a social enterprise that used SII funding, (ii) HomeGround Real Estate, a not-for-profit, social enterprise real estate company where landlords who provide properties at sub-market rent are acting as micro-impact investors, and (iii) Aspire SIB, used to finance a program to provide intensive housing support services to the chronically homeless. There is also growing awareness of the potential to use impact investment to address affordable housing specifically designed for the elderly and for those with disabilities. Interviews with stakeholders in these domains provide insight into the relevant issues to be considered for these populations.

3.1 The role of social enterprise in assisting vulnerable populations

Social enterprise is rapidly gaining traction in the homelessness field both internationally and in Australia (Kernot and McNeill 2011). Social enterprises are entrepreneurial organisations that pursue innovative approaches to problem-solving social, environmental or other more complex issues. While sometimes social enterprises have looked to charities for funding, there has been an expansion of private sector investment or hybrid funding models (Bugg-Levine, Kogut et al. 2012). In Australia and internationally, there are limited examples of social enterprises operating in the housing/homelessness area that can be seen as beneficiaries of equity impact investment. The impact investment available for social enterprises in Australia is predominantly debt (Ward-Christie 2015).

Examples of social enterprises involved in homelessness in Australia include cafes that provide employment skills training (Mission Australia 2016) and Micah Projects (Inc 2015), Secondbite—a service that redistributes surplus fresh food to people in need (SVA 2012), STREAT—which provides training and support to homeless youth through work experience in cafes, catering and coffee roasting businesses¹³, and *The Big Issue* newspaper¹⁴. As Australia's longest-standing social enterprise, and part of an international brand, *The Big Issue* Australia supports and creates vendor and job opportunities for the homeless and disadvantaged through the sale of magazines and running of workshops for community groups. Internationally there are a growing number of social enterprises targeting homelessness or the prevention of factors that precipitate homelessness (Teasdale 2009, 2010). There is no one-size-fits-all model, and there is considerable variation across these social enterprises (Teasdale 2009).

While there is an emerging body of research on the effectiveness of social enterprise initiatives relating to homelessness, there are many evidence gaps, and very few studies have tracked the relative effectiveness of social enterprise approaches over other homelessness interventions, longer term outcomes for participants, or included details about the funding and longer term sustainability of such programs (Teasdale 2010). There is also evidence to suggest that social enterprise routes to employment may not work so well for homeless people with more complex social support needs (Teasdale 2010). This concern highlights the need to monitor how shifts in funding and service delivery models impact on homelessness outcomes, particularly among those who may be most vulnerable.

Two examples of social enterprises relevant to homelessness are the real estate services operated by Women's Property Real Estate¹⁵ and Home Ground Real Estate¹⁶ (operated by Launch Housing). Both are used to create a revenue stream to help support the associated not-for-profit agencies as well as better meeting housing needs of homeless clients. This is discussed further in the HomeGround Real Estate case study.

More common are enterprises such as *The Big Issue* and STREAT which do not provide explicit homelessness or housing support, but do provide opportunities through employment experience to facilitate independence and freedom from homelessness. The total Big Issue budget is based on about 50 per cent from sales and 50 per cent from donations and grants. The grants and donations have allowed *The Big Issue* to expand and diversify its operations, although the core activity of publishing could continue without grants and donations but with more restricted capacity. STREAT, in 2015 was 65 per cent self-funded through its businesses, with the

¹³ <https://www.streat.com.au/about>.

¹⁴ <http://www.thebigissue.org.au/about-the-big-issue/about/>.

¹⁵ <http://www.wpi.org.au/>.

¹⁶ <https://www.launchhousing.org.au/homeground-real-estate/>.

remainder of funding coming from grants and donations. STREAT has also used crowd funding to finance expansion projects and it is anticipated that projects will reach financial sustainability by 2018–19; however this does not cover the operational overheads.

In Australia, many social enterprises exist to support those in the community that experience housing vulnerability, either directly such as community housing providers, or indirectly through the provision of support to enable economic engagement through employment. The most recent 2016 FASES research identified that economic participation for those marginalised from the workforce was the equally most prevalent mission of the social enterprises surveyed. Social enterprises such as STREAT, Launch Housing and *The Big Issue* have risen to such prevalence that they are well known, even in mainstream society.

Despite this, there are relatively few examples of social enterprises accessing social impact investment in Australia, and even fewer examples of social impact investment in social enterprises that work to assist those in the community experiencing or at risk of homelessness.

The lack of 'housing vulnerability' social enterprises accessing social impact investment may appear as a conundrum. However, there are some very clear reasons why this is the case that tell a story of mismatched expectations and markets.

1 Social enterprises generally exist as a response to market failure

Most social enterprises exist in response to the free market not adequately serving their beneficiaries. Social enterprises that exist to provide access to employment for those marginalised from the traditional labour market do so because their beneficiaries are generally regarded as insufficiently productive and/or unskilled, yet our society is predicated on a principle of accessible employment for all. Similarly, social enterprises that provide affordable housing exist to enable housing access to people who cannot afford what the open market demands them to pay.

2 Impact investors generally expect a market rate of return

The cost of impact investment capital is, at least in part, determined by what the non-social enterprise market can afford, and standard (non-social enterprise) market expectations help set impact investors' expectations of return. In 2016, Impact Investing Australia's survey of current and potential social impact investors found that: 'There is a clear expectation for competitive market rates of return (58%) across both active impact investors and investors not active in impact investing' (Dembek, Madhavan et al. 2016: 25).

3 Market failure responses result in low margin solutions

There is a profitability implication of achievement of the community benefit purpose in instances of social enterprises responding to market failure. Social enterprises do not measure success in terms of profitability alone. Their success can be viewed as the degree of profitability to ensure sustainable operations, balanced with optimisation of the community benefit purpose. As a result, social enterprises are often not high margin or cash-rich businesses.

Low-margin, low-return responses to market failure impede a social enterprise's ability to access capital and the likely complexity of their need for capital, which frequently requires hybrid combinations of donation/grant capital and social impact investment.

When the complexity and high transaction costs of an impact investment are considered, it is little wonder that organisations would not commit resources to an impact investment capital raise, when it is highly likely they will need to resource a donation-based fundraising campaign as well. Instead, many stick to what they know and what they are good at, and aim to raise the capital they need through familiar fundraising channels. It seems likely that this would only change if: donation/grant capital is unattainable or inadequate; market failure is addressed by governments, making SII more affordable; and social enterprises develop equivalent capability

in SII capital raising to what they have developed over decades of successful, traditional fundraising campaigns.

In Australia, the law around the structuring of social enterprises is complex. When determining the appropriate legal structure, organisations must consider the sources of funding required, the tax concessions sought, the ongoing reporting and governance requirements, and the value of registration as a charity. Many tax concessions are only available to not-for-profit entities and only not-for-profits can register as a charity¹⁷.

To register as a charity in Australia, an organisation must demonstrate that it has one or more charitable purposes¹⁸. A charity can engage in activities that may not in themselves be charitable but are necessary or appropriate to further the organisation's charitable purposes. This means that a charity can engage in or operate activities designed to raise money, provided these funds are used for its charitable purposes. Hence, a charity can operate a standalone business to fund accommodation for the vulnerable. However, many of the organisations discussed in our report operate hybrid structures that combine both for-profit and not-for-profit entities, so as to increase funding options (e.g. equity finance), reduce risks and limit exposures, and maintain separate activities and entities that are registered as charitable¹⁹. Importantly, use of hybrid legal structures by social enterprises (including community housing providers) can assist these enterprises to operate incorporated businesses that operate with clear commercial objectives, but which ultimately fund broader social purposes.

3.2 STREAT—a social enterprise accessing SII funding

About STREAT

STREAT Ltd is a not-for-profit social enterprise that works to end youth homelessness. STREAT provides homeless and marginalised young people, aged between 16 and 25 years, with vocational training, welfare and housing support, that is aimed at helping them develop a 'stable self, stable home and a stable job' in the hospitality industry. STREAT provides a suite of programs including hospitality short courses, a Certificate II program, work experience opportunities and a creative arts program together with support to secure stable housing and access to health and wellbeing services.

As a social enterprise, STREAT's business model has three defining elements²⁰:

- Its primary purpose is to provide a social/environmental public benefit—in this case, to address youth homelessness.
- The social benefit purpose is achieved through a revenue generating trading model that is the main source of income for the enterprise at maturity—in the financial year 2016–17, STREAT's hospitality businesses, which provide training opportunities and generate revenue that funds support services, generated 58 per cent of STREAT's \$3.9 million income.

¹⁷ For an outline of the legal issues, see Justice Connect, Social Enterprise Guide (July 2017) available at https://www.nfplaw.org.au/sites/default/files/media/Social_Enterprise_Guide_Cth_1.pdf. This guide highlights the limitations and benefits of presently available legal structures.

¹⁸ *Charities Act 2013* (Cth). This Act outlines twelve charitable purposes including advancing social or public welfare.

¹⁹ Justice Connect, Social Enterprise Guide (July 2017). This guide provides useful examples of hybrid legal structures for operating social enterprises.

²⁰ This definition aligns closely with that used in the UK, for example: Social Enterprise UK <http://www.socialenterprise.org.uk/about/about-social-enterprise>.

- Irrespective of the company legal structure, the majority of profits/surpluses are used to address the social purpose; the community/public benefit is superior to any ancillary private benefit—STREAT has a complex legal structure, necessitated by its capital requirements, which will be described later in this case study; all retained assets go into furthering its social impact (Barraket, Collyer et al. 2010).

STREAT's social impact investments

Since its inception as a single mobile food cart in Melbourne's CBD in 2010, STREAT has had growth ambitions driven by the direct relationship between operational scale and the number of young people it can help out of homelessness.

STREAT's rapid growth strategy necessitates access to capital beyond its own balance sheet. Initially, this was provided by philanthropy, but in 2012 STREAT looked to social impact investment (SII) to fund its growth.

The first SII

In 2012, STREAT used SII to acquire the Social Roasting Company, which included two cafes and a wholesale coffee roasting business, doubling the size of its operations. A sale price of \$250,000 was negotiated but it was determined that in the order of \$300,000 was required to operationalise the acquisition.

Guided by their advisor, Paul Steele, CEO of Donkey Wheel Foundation, STREAT decided that equity capital was the most appropriate form for this circumstance. It was determined that equity finance presented a comparatively lower risk profile than debt and could be generated at a faster rate than donation/grant capital. However, as a not-for-profit company limited by guarantee, STREAT could not issue an equity stake in its company.

The answer was for STREAT to incorporate a for-profit, subsidiary company, STREAT Enterprises Pty Ltd that would own the two cafes and coffee roasting business, and in which STREAT would issue shares to raise equity capital to purchase the Social Roasting Company.

Issuing shares presents a trade-off between the ability to raise funds and the risk of loss of control. STREAT managed this trade-off by offering 50 per cent of the shares of STREAT Enterprises Pty Ltd for \$300,000, retaining a controlling share but implying that the business under STREAT's management would have a value of \$600,000.

An examination of the qualities of the four social impact investors that purchased shares in STREAT Enterprises Pty Ltd provides an interesting lens to inform how this SII differed to traditional forms of finance as they:

- Were aligned with the purpose of STREAT and understood the intent of the social impact investment.
- Were happy to accept a lower financial return for the level of risk presented by the enterprise because of the social impact and the land-mark nature of the SII itself.
- Could satisfy STREAT Management that they would only use the return generated from the STREAT SII for purposes that aligned with its values.
- Were prepared to commit to at least \$50,000 as a means of managing the transaction costs of the deal.
- Were not concerned by the low liquidity of the SII, that is, the ability to exit.

The second SII

STREAT undertook its second SII in 2015, again to realise its growth strategy. This time, SII was used to build a flagship home for its activities. Philanthropist, Geoff Harris, bought Cromwell

Manor in Collingwood to be STREAT's home and gifted its use for 50 years at a peppercorn rent of \$5 per annum.

However, to take advantage of this opportunity, STREAT needed to raise \$3.5 million to develop the site and expand its operations to include a new café, bakery and function space. Modelling indicated that the capital required would need to be a mixture of philanthropic donation/grant capital, possible because STREAT Ltd has deductible gift recipient status and debt finance. STREAT was relatively quick to raise \$1.34 million in grant capital, due to its strong networks and track record with philanthropy. In total, eight philanthropic partners provided grant capital.

However, hindered by not having a freehold title over Cromwell, it took over a year of active sourcing before NAB and Social Ventures Australia jointly provided STREAT with debt finance, aided by Geoff Harris providing the property as security. There was also investor nervousness around the financial forecasts, which were reviewed pro bono by Crowe Horwath to provide confidence.

The special circumstances presented by the Cromwell Deal illustrate the difference between SII and traditional finance driven by the impact of the social purpose on profitability and also by a desire for investors to create social as well as financial value; the peppercorn lease, specific nature of the development and financial forecasts of the business all necessitated a greater risk appetite commensurate to forecast financial returns.

Furthermore, the SII deal has been designed so that ultimately the National Australia Bank and Social Ventures Australia (SVA) debt will be taken over by long-term, wholesale impact investors.

The result

Since its inception, STREAT has provided 52,000 hours of support and training to 520 homeless young people. They forecast that by 2018, Cromwell STREAT will enable them to support 365 youths a year by 2018 and have the goal of supporting 1,095 young people a year by 2022—a long way from a single food cart and nine young people in 2010.

Lessons

A key strategic theme in STREAT's development has been the need to scale in response to the growing need for the support they provide and the relatively marginal hospitality industry in which they operate. Various forms of externally-sourced capital, including philanthropy, SII and in-kind support have been important to STREAT's realisation of their growth objectives.

This variety in STREAT's funding mix is an important lesson; the right capital, in the right form at the right time. Because SII has been inherently part of STREAT's funding mix for the majority of its existence, it is difficult to separate the impact of SII from other forms of capital. The lesson here is the importance of blended and appropriate capital with a focus on financial viability and optimal social impact.

STREAT also demonstrates the need for capital requirements to drive legal form—STREAT was able to leverage the benefits of their charitable status and issue equity in the Social Roasting Company assets that were important to doubling their scale early in their history.

The needs of the social enterprise must be married with the needs of impact investors, and this union is time consuming and expensive to orchestrate. STREAT's SII history demonstrates the high transaction costs and the specialist nature of this work, necessitating advisors and intermediaries. In STREAT's case, this support was provided pro bono and included SVA and Paul Steele's advice, legal support from DLA Piper and accounting services from Crowe Horwath.

From a policy perspective, STREAT's development demonstrates the need to support increased access to a breadth of financial/funding categories—grant, sub-market 'soft loans' and SII—if social enterprises addressing entrenched social problems such as homelessness are to thrive.

3.3 HomeGround Real Estate—facilitating affordable housing investment by micro-impact investors

Organisation overview

HomeGround Real Estate (HGREA) is a social enterprise not-for-profit professional residential real estate agency operated by Launch Housing in Melbourne, commencing operation in 2014. Seed funding was provided from philanthropic sources and local government grants (HomeGround Real Estate 2015). A three-tier model uses income from commercial real estate activities (Tier 1) to subsidise the Affordable Housing Initiative which provides two streams of housing for people who are experiencing disadvantage: 'Affordable Housing' properties at below market rent (Tier 2) and 'Private Social Housing' properties where rent is set based on tenant income (Tier 3).

Impact

HGREA contributes to the supply of affordable housing for people priced out of the private rental market²¹ and to development of the impact investment environment. It acts as an intermediary between private landlords who receive below market rent and thus act as micro-impact investors, and people who are homeless or at risk of homelessness and not able to access affordable public or private housing.

HGREA also contributes to development of the impact investment market infrastructure. In particular, HGREA has worked with the Australian Taxation Office to have a class taxation ruling granted which effectively allows impact investor landlords to claim the difference between the market and affordable rent as a taxation deduction. The taxation ruling is further discussed below.

Although HGREA itself does not use impact investment funding, landlords who provide properties under the Affordable Housing Initiative and receive below-market rent are micro-impact investors. They chose to accept lower than market financial returns while making a positive social impact through an increased supply of affordable housing. Generally Affordable Housing Initiative tenants are low income and have low needs, but they may have characteristics that disadvantage them in sourcing a tenancy in the private rental market, such as young mothers with children and older people who have been priced out of the rental market in areas they have always lived. Some landlords stipulate how they want their property used, for example, youth, domestic violence or asylum seeker (HomeGround Real Estate 2015).

Owners who provide their property at full market rent also make an impact as the commission they pay is used to subsidise operation of the Affordable Housing Initiative. If profits are made in the future, these would go to support Launch Housing homelessness programs.

As at March 2017, HGREA had 267 properties on its books and since its launch has provided housing to more than 400 people.

²¹ HomeGround Real Estate (n.d.HomeGround real estate turns one, accessed 30 June 2016, <http://www.homeground.org.au/publication/homeground-real-estate-turns-one>

HGREA plans to extend the model into other states with additional philanthropic backing. Bridge Housing will deliver the model in Sydney, expected to commence in 2018 (Bridge Housing 2017) and discussions are occurring in two other states.

Impact investment overview, the three-tier model

HGREA operates a three-tier model, where income from Tier 1 properties are used to cross-subsidise the Affordable Housing and Private Social Housing initiatives.

Tier 1: Commercial property rental

Private rentals where market rent and management fees are charged and properties are advertised. HGREA re-invests management fees to subsidise management of affordable rental properties. HGREA also manages rooming house rooms at commercial rates, which are used by Launch Housing to house homelessness clients with supports. At March 2017, there were 92 full market rental properties plus 67 rooming house rooms under management.

Tier 2: Affordable Housing

Rent is negotiated with landlords at anywhere from 10 per cent below market to a point where it is considered a social rent. A private tax ruling effectively allows property providers to claim the difference between market rent and the discounted rent as a tax deduction (see Taxation Ruling below).

Properties are offered first to Launch Housing to fill for tenants with low needs. If no suitable tenant is identified the property is advertised. The NRAS income limits are applied to all properties in this category, including for Launch clients. There is also a preference that the rent is 30 per cent or less of the renter's income. At March 2017, there were 59 properties available at reduced rent (22% of their total properties).

Tier 3: Private Social Housing

Philanthropic landlords offer properties at a discounted rent, or for a rent free period. Rent is set at 25 to 30 per cent of income plus Commonwealth rental assistance and tenants are referred through Launch Housing or other homelessness services. Tenants are predominantly low needs and support to maintain the tenancy is provided as required through Launch Housing. At August 2016, HGREA had 49 Tier 3 properties available, 37 owned by Launch Housing.

Market development—taxation ruling

Taxation concessions represent an important aspect of the impact investment environment with the potential to supplement investment returns. The taxation class ruling granted to HGREA (which applies to HomeGround Real Estate only) requires landlords to declare rent income at market rate, but allows them to claim the gap between the market and discounted rent as a tax deductible donation. The ruling also specifies the conditions and documentation required to determine the donation amount in a robust and transparent manner (HomeGround Real Estate 2016). This creates a direct benefit for HGREA landlords who act as micro-impact investors, but also contributes to the development of infrastructure required to support the impact investment market.

The class ruling can be found at <https://www.ato.gov.au/law/view/pdf/pbr/cr2016-042.pdf>.

Challenges

Managing the ratio of full and subsidised rental properties required to sustain the model

The three-tier model provides a blended return and cross-subsidisation of services across the three tiers. To date, HGREA has not attracted the number of full rental properties required to cross-subsidise their intermediary role associated with management of subsidised rental (Tier 2 and 3) properties, and their role in market development. To manage this issue, the management

fee for Private Social Housing properties has been increased from nil or very low to closer to market rate, with property providers happy to pay this fee.

Achieving scale—minimising property management risk

Maintaining a track record of quality property management is important to attract required volume to scale the model and creates a lower risk environment for landlords. Lower risk is of particular importance to attract landlords who act as micro-impact investors or philanthropists who accept a lower or no rental return.

Selection of tenants with lower needs is an important part of property risk management as is negotiation with landlords receiving less than market rent over responsibility for maintenance.

As HGREA provides both commercial and affordable real estate options, landlords with more than one property can subsidise discounted rental returns and spread risk by renting properties under more than one tier of the model.

Funding to facilitate support for higher needs tenants

Ability to apply the micro-impact investor model to house people with higher needs faces challenges. People with higher needs are often reliant on welfare and typically cannot afford even the discounted rents of Affordable Housing properties. There is a lack of funding for tenancy support services required to assist people with higher needs to successfully sustain a tenancy, and thus manage risk for landlords. HGREA has applied for funding to extend tenancy support so that private social housing can be used to house people with higher needs (HomeGround Real Estate 2015).

Establishing the infrastructure to support the model

The innovative nature of the model means that supporting market structures must be developed. This requires additional expertise and funding, often from philanthropic sources. For example, REA Group (realestate.com) provided \$1 million in funding over three years (2014–17) to roll out a rapid rehousing program for women and children fleeing family violence²².

3.4 The Aspire Social Impact Bond

Program overview

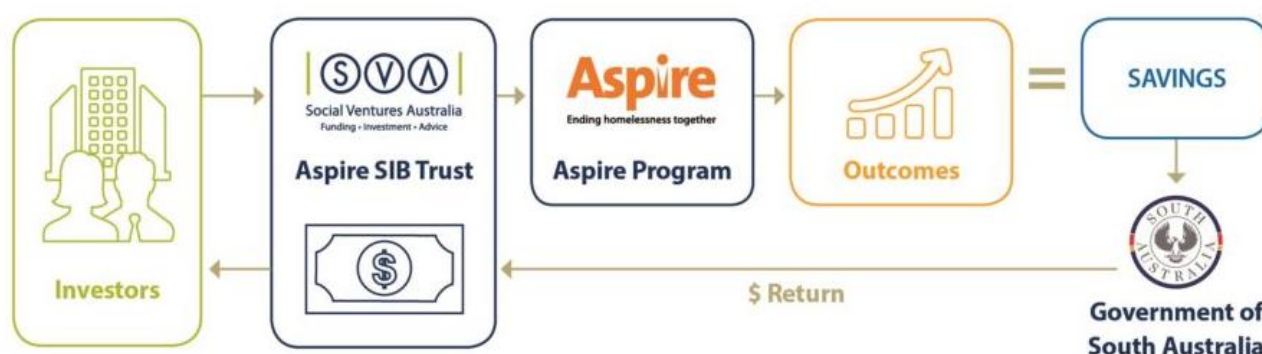
The Aspire Social Impact Bond is the first Australian social impact bond (SIB) to address homelessness. It will provide \$9 million in private capital to fund the working capital of the Aspire Program in South Australia to 600 individuals over a seven-year period commencing July 2017. This is a 'housing first' model that aims to permanently end homelessness for clients. It provides intensive wrap-around services over three years of support. Support is more personalised, intensive and longer than traditionally provided, but critical to assist people who have experienced extended periods of homelessness.

Hutt St Centre (HSC) entered into a contract with the South Australian Government to deliver the program, and will be supported by housing providers including Housing Choices South Australia (incorporating Common Ground Adelaide) and Unity Housing. The Aspire Program builds on HSC's current suite of support programs, including education and employment services. Housing Choices South Australia and Unity Housing, in conjunction with other community housing providers, will provide suitable accommodation under the program. Social Ventures Australia (SVA) is providing intermediary services, including raising the private sector

²² HomeGround Real Estate (n.d.HomeGround real estate turns one, accessed 30 June 2016, <http://www.homeground.org.au/publication/homeground-real-estate-turns-one>.

capital for the SIB and managing the Aspire SIB trust. The sale of bonds to wholesale and professional investors occurred in early 2017 and was oversubscribed within four weeks.

Figure 1: The Aspire SIB structure



Source: SVA (2017)

Key features:

- Investor returns are determined by government payments to the Aspire SIB Trust. Payments are based on a standing charge of \$6 million which is not performance dependent, plus a share of performance payments that are linked to SA Government savings generated by the outcomes of the Aspire program.
- Outcomes are determined by measuring health (hospital bed days), justice (convictions) and short-term or emergency accommodation homelessness service use relative to a historical baseline. (There is provision for the counterfactual to be reviewed during the program, based on latest data.) Savings are estimated based on unit values associated with each outcome measure. For example, the unit value of hospital bed days includes associated savings across ambulance, emergency department, and drug and alcohol services.
- There is a 7.75-year bond term (7 years program delivery plus establishment and data collection).
- The SIB offers two per cent p.a. fixed coupon over 4.75 years, then three performance coupons based on the level of trust assets.
- Termination rights for poor performance limits downside loss to approximately 50 per cent of principal.
- Target scenario estimated return of 8.5 per cent per annum (objective only). If the program outperforms, returns would be approximately 13 per cent per annum.

Risk and return

Return to investors will be determined by the Aspire program’s ability to reduce participants’ use of health, justice and homelessness services, relative to a historical counterfactual, as agreed between the SA Government, HSC and SVA. Risks and risk management measures include:

- The Aspire program does not provide the social outcomes expected, and thus the return. This relates to program design, counterparty risk (HSC’s ability to deliver the program), and the availability of suitable housing. Managed by:
 - the \$6 million standing charge, which limits downside risk and thus allowed government to cap upside return to investors

- evidence is available on success of ‘Housing First’ intensive support models and the program builds on HSC existing programs
- Memorandums of Understanding with community housing providers to provide adequate suitable accommodation.
- Availability of robust outcome measurement data—this is the first SIB in Australia to draw on savings from more than one area of government (health, justice and SHSs) and required linkage of government agency data bases. Managed by:
 - The SA Government’s role in provision and linkage of service use data for both the historical counterfactual and ongoing outcome measurement for the intervention group. The SA Government collects health, justice and SHS (Homeless2Home) data at a state level, negating the need for coordination with Commonwealth Government data custodians.
 - Outcomes are certified by an independent certifier.
- Incorrect specification of the historical fixed counterfactual. Managed by:
 - The SA Government’s role in data provision and linkage, as discussed above.
 - The fixed baseline counterfactual will be reviewed at the third payment date (or earlier if deemed necessary) to determine if revision of the counterfactual is required. If parties cannot agree on the ongoing counterfactual, there is an ability to terminate the SIB.

Availability of Impact Investment capital

The Aspire SIB was oversubscribed within a four week period, with approximately 65 investors taking part. Investors were a mix of high worth individuals, family offices or foundations and institutions with a mandate to invest a portion of their funds into impact investing. While the oversubscription shows an appetite in the market for Impact Investing opportunities, it was in part attributed to this being SA’s first SIB and a gap of three or four years since the last Australian SIB capital raising.

The SIB process

The Aspire SIB was South Australia’s first SIB and each party to the SIB learned as they navigated the process, which took approximately two years. There is limited intellectual capacity and expertise in Australia around impact investing and the SA Government played an important role in ensuring impact investment market readiness among service delivery organisations through the release of their 2014 Impact Investing discussion paper and capacity building in outcome-based measurement with NGOs.

Lack of rigorous and publically available government service use and cost data required to define the economic model that informs outcome payments under the SIB arrangement is seen as a major challenge to SIB development. The initial phase of the tender process requires proponents to define the historical baseline counterfactual, and forecast program outcomes for the intervention group and the associated government economic savings. However, the NGO proponents and financial intermediaries assisting them typically do not have access to suitable rigorous data, creating a barrier to proposal development. It is only after the initial stage that a more rigorous business case can be developed. Even then, there is essentially no current evidence of what happens when program support ceases, and thus the period over which economic savings are expected to occur post-program intervention.

For the Aspire SIB, the SA Government played a crucial role in development of the economic model and business case for the SIB through data collection, cross-linkage of multiple government agency datasets and data analysis. Basing the economic model on savings for three government agencies provided significant challenges in the development of data

management and linkage protocols but is expected to provide ongoing benefits. These benefits will go beyond the evaluation of this SIB. Being able to bring together client-level service usage data across multiple delivery systems will help government agencies tackle a range of policy problems with people who experience multiple and complex interactions with government and government-funded providers.

The enthusiasm of all parties, a shared common goal, and flexibility were all seen as important aspects of the SIB joint development phase, facilitating successful negotiation of the allocation of costs and benefits associated with the SIB between stakeholders and a positive outcome.

Benefits and barriers for the SA Government

The impetus for the SA Government to participate in the SIB market has been multifaceted. SIBs can be used to change the timing of expenditure and provides flexibility to fund programs when funds are not currently available in the government budget. The need for rigorous outcomes measurement and economic evaluation to satisfy external investors benefits government through development of data collection methods and analysis. The Aspire SIB created a precedence in bringing together data custodians from three agencies and encouraging whole-of-government oversight.

The SIB features that limit government downside risk if the program is not successful are seen by the SA Government as important in making the SIB suitable to fund new programs such as Aspire; which offer a different approach to current program offerings, and where evidence is available to support the economic case for the more intensive program but has not been proven in the context proposed. However, given the comparatively small size of SA, and thus the smaller scale of programs and associated savings, the high fixed set-up and transaction costs currently associated with an SIB means that if a program is successful it would be cheaper for the government to fund the program from their budget.

Financing a social program via a social impact bond is always going to be more expensive than government funding it from its own balance sheet (when the program is successful) because of the requirement for government to pay returns to investors. This higher cost to government of an SIB can be justified by: (i) the opportunity to build the evidence base around a new, intensive model of service delivery, and (ii) investors being willing to take on some of the risk in the event of under-performance (investors have different risk appetites, and are arguably better placed than government to price this risk). Additionally, the presence of external investors enforces robust measurement and public accountability of service outcomes, because this is explicitly linked to payment.

The procurement process associated with an SIB is seen as beneficial; with greater dialogue between parties and the outcome-based approach provides the NGO with greater flexibility in service delivery. However, the intensity of the procurement process again limits applicability to larger scale programs.

Future development

Increased availability of robust data, education, capacity building, growth of market size and reduction of fixed costs are all seen as important to future SIB market development. Ongoing capacity building is important and the government must invest in ongoing sector consultation and education.

Increased availability of robust data is essential to allow all stakeholders to better assess risk and return at a lower cost. This in turn will reduce the cost of SIB funds to government and NGOs and is seen by all stakeholders as crucial to market development.

Government has an important role to play in ensuring that required data are collected, data management methods are robust and efficient, data linkage protocols are established and the process becomes less costly, and in providing infrastructure to support interrogation and

analysis of these data. Investing in analysis of linked government administrative data is particularly important to develop evidence around the longevity of positive outcomes for program participants, and thus the period over which economic savings are expected to be generated.

Commonwealth Government involvement in the SIB market is important with the potential to increase the size of the SIB market through the Commonwealth Government issue of SIBs, further development of market infrastructure and through improved data availability. The Commonwealth Government has only recently published a discussion document. To date, only state governments have issued SIBs and only savings to state governments have been considered when assessing returns. Linkage of administrative data for state and Commonwealth agencies would improve access to more complete outcome data and a more complete assessment of associated savings. For example, inclusion of Commonwealth Government savings associated with change in employment outcomes and welfare payments. This would be of particular importance where the economic viability of an SIB is sensitive to inclusion of Commonwealth as well as state government savings.

The high transaction costs of SIBs relative to funds raised are seen as a barrier to governments being motivated to use SIBs as a procurement/financing method, NGOs entering the market, particularly smaller NGOs, and to large-scale entry of for-profit financial intermediaries into the market. These costs are expected to decrease over time as the market grows, but the need to manage these costs must be considered when determining contractual requirements and market regulation. The high transaction costs mean that not-for profit intermediaries such as SVA currently play an important role in the market. They provide the necessary skill base to assist NGOs to build financial models, negotiate with government and raise funds, but at a lower cost than for-profit intermediaries.

There is a need to further grow the investor base for SIBs and social impact investing generally, and grow the amount of capital willing to accept a mixture of financial and social return. This means persuading those who currently require financial returns to accept a mixed return and encouraging philanthropic investors to participate. For philanthropic investors, SII has the advantage of providing evidence of positive outcomes for funds invested. Investment returns allows funds to be recycled and therefore increases the opportunity to fund worthwhile programs.

3.5 Affordable housing and support for the elderly

As with other vulnerable populations, maintaining a tenancy as an older person is a matter both of affordability and, for some, access to services that will enable that older person to maintain a tenancy. Housing is becoming increasingly unaffordable for the elderly, particularly one-person renter households in metropolitan areas (where one bedroom dwellings are generally available) which would require 60 per cent or more of a pensioner's income to be spent on rent. Housing pressures on this household type would also be compounded by a number of other pressures, including health care costs associated with ageing (SGS Economics and Planning 2017).

There is limited evidence of SII in aged care either in Australia or internationally (Ernst Young 2016). Except in regional and rural areas, aged care is currently seen to be profitable or self-funding with most for-profit and not-for-profit organisations able to sustain their operations with the current level of government and/or private funding arrangements. It is likely that potential cost savings are lower than for preventative and funding intensive services (e.g. child protection, justice and health) (Ernst Young 2016). Some scope for SII in affordable housing for the aged is seen in regional and rural areas where shortages exist, and in low-income areas. There is also scope for SII in facilities that facilitate independent living or provide supported

accommodation, and delay entry into residential care. Such facilities would create savings through avoidance of the high health costs (Ernst Young 2016).

Interviews undertaken with stakeholders in the aged care industry expressed interest in SII, particularly in relation to the funding of infrastructure. However, the Commonwealth Government has constitutional jurisdiction to legislate with regard to aged care (including in the home, day care and in community care) and several respondents noted that government policy in the area 'kept changing' so it was difficult to progress plans with certainty. One organisation that had looked seriously at capital investment in aged care facilities is currently not proceeding until the situation regarding beds, funding etc. is clarified.

Consistent with the Ernst Young report discussed above, concern was expressed about the lack of facilities and services in rural and regional areas and lower income areas. However, interviewees suggested that due to the likely lack of viable return, significant government guarantees and supports would be necessary to entice investors into this space. There was also significant concern around the amount of regulation and 'red tape' involved in SII funding arrangements and the associated cost involved.

The Commonwealth Government has moved to home-based care packages for the aged delivered on a Consumer Directed Care (CDC) basis, which could provide avenues for SII in the aged care space, including infrastructure development for residential and day facilities and the provision of services to assist the aged to remain in their homes (Ernst Young 2016). Interviews with stakeholders suggested that the rent relief component of the Commonwealth Home Support Program could be used to support investment in purpose-built housing for the aged, with the possibility for associated support services. This model would be similar to that currently applied by the Summer Housing Foundation which has used the SDA in the NDIS to support SII in purpose-built housing for the disabled (see Section 5.6 for further discussion). Alternatively, a model similar to the Goodstart Childcare centres model was also seen as workable, with cash flow in higher income areas used to cross-subsidise care in lower income areas (Ernst Young 2016).

Stakeholders also saw the potential to finance services to support older people to maintain a tenancy using a pay-for-success model such as an SIB, suggesting a program similar to the Newquay Pathfinder Program in the UK. This is a payment-by-results project, providing health and care services to people in their own home, which has shown to be successful in keeping clients out of hospital and resulted in significant health care-related savings (Newquay Pathfinder Program n.d.). This is consistent with the literature which shows a strong relation between housing insecurity for the elderly and physical and psychological health issues (e.g. Bekhet, Zauszniewski et al. 2009; Hiscock, Kearns et al. 2001).

Any move to use funding mechanisms such as SIBs to provide affordable housing for the aged or support services to assist the aged to maintain a tenancy must address the issue that while aged care is largely funded by the Commonwealth Government, potential cost savings come largely from health-related savings which flow to the states (Ernst Young 2016).

3.6 Affordable housing and support for people with disabilities

The disability landscape is currently being transformed by the roll-out of the NDIS and interviews with stakeholders in the disability sector largely suggested that, until the scope of the NDIS is understood, there may be delays in initiatives to access funding through SII. Stakeholders considered both provision of capital to fund specialised affordable housing for people with disabilities and the provision of working capital to provide support to assist disabled people to maintain accommodation as potential applications for SII. This is consistent with recommendations made by Ernst Young to DSS (2016).

The Summer Housing Foundation demonstration projects were mentioned by stakeholders as an Australian example of SII to provide affordable housing for the disabled with support. Summer Housing foundation has purchased 10 apartments in a 110 unit building and modified them during construction for clients with disabilities. They have also purchased an eleventh apartment in the same complex to house a carer and provide disabled residents with required support to maintain their housing. The foundation uses the SDA payment under the NDIS to supplement the affordable rent paid by residents and provide a viable income stream. The project is small at the moment, but Summer Housing hope to be able to scale the model to larger projects (Summer Housing Foundation n.d.). Stakeholders in the disability services sector indicated that seeing NDIS funding used effectively in this way could help to mitigate concerns over investment in disability housing and encourage SII investment in similar projects.

Expansion of home and community care options that support the disabled to maintain affordable housing is seen as a further potential area for SII. The potential for programs to reduce hospital or primary health care costs making it suitable for pay-for-results type investments (Ernst Young 2016) such as SIBs. There are no current examples in Australia, but stakeholders indicated they were aware of successful programs internationally, particularly in the UK, and there was the potential for similar programs to be funded in Australia once the NDIS is fully understood,

In the UK, Golden Lane Housing focuses on providing housing options for persons with a learning disability financed through the sale of charitable bonds. They also provide specialist tenancy management and support with repairs and maintenance to assist people to maintain their tenancies. Their 2014 bond was the first ever charitable bond to be listed on the London Stock Exchange, providing liquidity for bond investors. Positive outcomes have been achieved for both people with disabilities who have been housed and for their families, including improved physical and psychological health outcomes (Golden Lane Housing 2015). The Shared Lives Incubator project in the UK provides dwellings and wrap-around services for vulnerable people requiring support through a homeshare arrangement with carers. The project is funded by Big Society Capital in conjunction with three foundations. The aim is to scale up an existing program and build evidence to facilitate continued expansion of the service. Funds will be invested up-front to support growth and will be repaid as a proportion of the management fee that the Shared Lives schemes receive from local authorities for each Shared Lives arrangement they establish. The model is estimated to save authorities £26,000 per person per year compared with traditional support services (Big Society Capital 2016).

3.7 The policy development implications

There are a number of considerations for future policy developments that aim to help build the SII market in Australia and for those who aim to improve housing and homelessness outcomes. Some of the key considerations that require policy attention include:

- The need for capital requirements to match legal form—STREAT was able to leverage the benefits of their charitable status and issue equity in the Social Roasting Company assets that were important to doubling their scale early in their history. NFPs are unable to take on equity capital because of their company structure. Like STREAT, if they wished to do this, it would require a subsidiary for-profit company.
- The importance of blended and appropriate capital with a focus on financial viability and optimal social impact.
- The needs of the social enterprise must be married with the needs of impact investors, and this union is time consuming and expensive to orchestrate. There are high transaction costs that organisations will need assistance with, either via a pro bono arrangement or direct funding.

- There is a need to support increased access to a breadth of financial/funding categories—grant, sub-market ‘soft loans’ and SII—if social enterprises addressing entrenched social problems such as homelessness are to thrive.
- Social enterprise models struggle to support people with higher needs (e.g. they usually cannot afford even the discounted rents of affordable housing properties; the costs of tenancy support is high, and separate block grant funding is required to sustain this support for the tenant and to decrease the risk for landlords).
- Establishment, infrastructure and operational costs require seed or core funding separate to SII.
- Ongoing capacity-building is critical across the SII market.
- Growth of market size is required to assist it to meet its potential.
- The reduction of fixed transaction costs (or the provision of funding or pro bono support for transactions, such as through NFP intermediaries) is critically important to SII’s market development. If not addressed, smaller to medium-sized NFPs will not be able to compete in the market for SII funding.
- Government has an important role to play in ensuring that required outcome data are collected, data management methods are robust and efficient, data linkage protocols are established and the process becomes less costly, and in providing infrastructure to support interrogation and analysis of this data. Investing in analysis of linked government administrative data is particularly important to develop evidence around the longevity of positive outcomes for program participants, and thus the period over which economic savings are expected to be generated.
- Commonwealth Government involvement in the SIB market is important with the potential to increase the size of the SIB market through the issue of SIBs, the further development of market infrastructure, and through improved data availability.
- There is a need to further grow the investor base for SIBs and social impact investing generally, and grow the amount of capital willing to accept a mixture of financial and social return.

In regard to specific groups of vulnerable people, further consideration is needed about whether SII is appropriate and return on investments would flow. For example, in aged care, while an SIB may be appropriate, aged care is currently funded by the Commonwealth Government, but most cost savings are likely to come from the health portfolio.

4 Empirical analysis of housing returns and financial modelling

Examination of the return/risk profile of portfolios of residential properties constructed by location (capital city, major regional city, other) and taxable income levels show:

- Capital gains ranged between 10 per cent and 20 per cent per annum, with high total volatility (standard deviation (sd.) around 20%). Rental yields were around 4 to 4.5 per cent, and displayed little volatility (sd. around 1%).
 - If impact investors choose to invest in lower taxable income postcode areas, on average they may receive higher returns commensurate with the greater risk associated with these areas.
 - Risk-adjusted capital gains on units were generally higher outside the capital cities and for middle taxable income locations. For houses, lower income postcode areas in the capital and major regional cities tended to generate higher risk adjusted returns.
 - Risk-adjusted rental returns on units were generally highest for capital city and regional low and moderate-income locations. For houses, they are highest for regional and other area low-income locations.
 - Reducing rental yield for affordable housing reduces total return in a linear fashion. A decrease in the risk-adjusted return is observed, but it remains positive even in the scenario where zero rent is paid.
 - Adjustment of returns to incorporate taxes and transaction costs results in a decrease in risk-adjusted returns and the investment period becomes critical. Risk-adjusted return is generally negative if properties are bought and sold within 12 months. Over the long term, selling costs and capital gains taxes diminish in present value terms. Consequently, investors who regularly adjust their asset class allocations should seek exposure to affordable residential property through indirect investment vehicles such as shares in property corporations or units in property trusts, rather than direct investment to reduce the impact of transaction costs associated with short-term direct investment.
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4.1 Existing research

Social impact investing draws on the 'warm glow' that explains giving behaviour adopted by some individuals (Andreoni 1989; Crumpler and Grossman 2008; Korenok, Millner et al. 2013). It appears these individuals gain utility both from the act of giving and from increasing wealth. This is also implicit in recent finance literature concerning the impact of ethical investment, socially responsible firm investment, and sustainable investment on the mutual fund performance (Bauer, Koedijk et al. 2005; El Ghouli, Guedhami et al. 2011; Goss and Roberts 2011; Renneboog, Ter Horst et al. 2008). We argue that 'warm glow' also applies to impact

investors who choose to invest in housing, particularly the provision of housing for the homeless and the vulnerable, which involves a number of steps, one of which is the provision of physical housing.

This section focuses on the risk/return trade off generated by residential property in Australia. Our analysis differs from recent studies that consider real estate investment. Most of these studies rely on data from commercial information providers (e.g. Morningstar and UBS) that collect mutual fund performance data from individual property funds²³. For example, Newell, Lee et al. (2015) analyses residential real estate investment trusts (RREIT) in Australia. A major issue with this analysis is that the underlying properties held by the different mutual trusts in the sample may not be comparable. Following traditional finance theory, investors who choose these investment vehicles are assumed to maximise return for a chosen level of risk. The fund data examined from commercial information providers reflect property portfolios with particular investment characteristics, typically constructed to generate profits and/or diversification benefits, rather than social impact. It is impossible to determine whether an impact investor would choose the same portfolio as a commercial RREIT. Further, affordable housing investments are characterised in terms of both rental yield and capital gains. Adjustments for affordable housing in such studies have been directed at total returns rather than rent, which is often the focus of attention when considering housing for the homeless and the vulnerable. There is also the potential for return bias, as funds with poor returns are less likely to report results. In contrast, our analysis uses realised residential property sale price and advertised rental data at a postcode level, allowing separate analysis of capital gains, rental yields and total returns. This approach allows exploration of the risk and return characteristics of investing in particular locations or across particular income levels rather than assume that the unknown asset allocations adopted by RREITs are appropriate for impact investors.

Recent studies identify the diversification benefits offered by residential property to a large diversified equity portfolio investor (Brounen and Eichholtz 2003; Heaney and Srianthakumar 2012; Hudson-Wilson, Fabozzi et al. 2003; Lee and Stevenson 2005). We do not pursue this issue further here. The analysis reported here focuses on the behaviour of postcode level property portfolios. This is an important contribution of this study as there is little research published that focuses on residential property returns at the postcode level.

RREIT-based data have also been used to support the argument that an affordable residential property trust may not be a viable investment for large investors like superannuation funds (Newell, Lee et al. 2015). However, as we do not know what portfolio structure would best suit superannuation funds, particularly if they are considering offering their members the option of impact investment in either affordable housing or in housing for the homeless and vulnerable, it is difficult to draw such conclusions from this type of data. While this environment is changing rapidly, there are few affordable housing portfolios that exist in a form that is attractive to large institutional investors at present. The same argument applies to impact investors. It is likely the underlying real estate portfolio held by listed or unlisted trusts differs considerably from that chosen by impact investors focusing on the provision of housing.

The following analysis sets out returns that could be earned from an investment in residential property. This information is relevant to investors, including impact investors, as it allows them to see how residential property-based investments have performed over the last decade. It should be noted that paper gains are generally relied upon in assessing performance of investments, particularly financial securities and property.

²³ For example, Morningstar provides a range of information on the performance of Australian Real Estate Investment Trusts (REITs) (<http://www.morningstar.com.au>).

The most accurate estimate of property returns is achieved by focusing on properties that have been bought and sold where it is possible to track rental returns, purchase price and sale price. A reasonably accurate measure of internal rate of return can be calculated given this data, given assumptions about taxes and transaction costs faced by the investor. A recent study by the Department of Human Services (2010) takes this approach to estimating property returns, estimating the notional total return to residential property investors after adjustment for tax, transaction costs and financing (Department of Human Services 2010). This study was based on houses and units that were purchased, rented and sold in Melbourne over the period from 1998 to 2009. Houses and units were deemed as rented where a rental bond was lodged. The AHURI Research Centre at RMIT University internal rate of return (IRR) model was applied in these calculations and a range of assumptions were made with respect to the purchase price, taxes and costs (see Appendix B). The after-financing tax and transaction cost cash flows were analysed over the period from purchase of the property through to consequent sale. The IRR was then imputed from these cash flows. For houses (units) the returns ranged from 18 per cent (15%) for individual investors to 7 per cent (6%) for superannuation funds, with the variation across the investor groups explained by differences in assumed leverage and marginal tax rates. The problem with this approach is that residential properties are generally held for considerable periods and so data sets consisting of properties that have been bought and then sold are limited as the number of properties with a complete data set is fairly restricted, compared with the number of properties in existence. The value of a property can be estimated by a property appraiser, or by using prices of similar properties as assumed in the present study, though this approach is not evident in recent property return calculation-based studies.

The data used in the present study is not so sensitive to this problem as it consists of postcode average property sale prices for a particular year along with advertised rental for the postcode area. This alternative approach relies on the assumption that the residential properties are reasonably homogeneous within a postcode area. Given this assumption, the change in average sales price provides a measure of the capital gain or loss on properties within the postcode area over the period. This portfolio-based approach should be of interest to impact investors looking to construct large portfolios of residential properties.

Both approaches to estimating residential property portfolio investment return have their strengths and limitations. While individual property data provide the ability to calculate return quite precisely, the nature of the data results in a sample biased towards rented properties that are bought and sold over a fairly short period. There is a fairly limited sample of properties that fall within this group of properties in Australia at present. The data set used in this study is less sensitive to this problem though the return calculation focuses on postcode averages. It is important to note that both approaches are generally unable to adjust for capital improvement. It is also difficult to obtain accurate rental data and this is why the data set used in the present study focuses on advertised rents for the postcode area.

Further, the postcode level focus taken in the present study is useful as there is a range of data that can be collected for analysis that is not available at individual home level. While matched property data could be summarised for postcode level analysis, sample sizes will be limited and postcode coverage rather patchy given the limited number of properties for which both purchase and sale price are available for analysis. To date, adjustments made to mutual fund returns to reflect the lower returns that might be offered to impact investors have relied on arbitrary adjustments to total returns or to capital gains, yet impact investment in property usually involves reduced rental yields. In this situation, rent is reduced to provide more affordable housing of the homeless or the vulnerable. These adjustments need not affect the capital value of the property. As long as the house is properly maintained, its capital value will reflect the value of similar properties offered for sale in a similar location at a similar time. The work by the Department of Human Services (2010) shows that these choices need to be modelled carefully.

It is often argued that government guarantees and other forms of public support would make affordable housing more attractive to investors (Lawson, Berry et al. 2014). It is axiomatic that most investors, including many categorised as social impact investors, seek to maximise their returns and minimise their risks. These investors would naturally prefer the government or others to bear the most significant risks. However, the amount of new government funding available to provide affordable housing and homes specifically designed to accommodate the homeless and those most in need is limited, and future funding will be constrained by the pressures on Commonwealth and state budgets. Fortunately, there are social impact investors who are willing to invest without relying on government intermediaries and support, and some of these investors confirm that they are willing to accept lower financial returns when social outcomes are achieved.

Recent government reticence to increase commitments toward housing the homeless and the vulnerable suggest bond schemes like those set up in Europe (Lawson 2017; Lawson, Milligan et al. 2012) and recommended for Australia (CFFR 2016) may not gain as much traction as private sector-based initiatives, which do not rely directly on government support. The homeless require continuing management and support once housing is found as their problems are rarely based on the lack of appropriate housing alone.

In summary, social impact investment in properties designed to accommodate the most vulnerable communities in Australia differs from the current property investment vehicles sought by mutual funds and superannuation funds. So, we cannot rely on the performance measures of existing listed or unlisted real estate investment trusts (REITs or RREITs). It is also important to consider risk, and the likely transaction costs and tax implications in addition to expected returns.

4.2 Analysis

Our analysis uses residential property sale price and advertised rental data supplied by CoreLogic at postcode level to examine the possible returns and the risks of social impact investment in portfolios of residential property. Our inclusion of actual property sales and estimated rental data at postcode level allows separate analysis of capital gains, rental yields and total returns, and allows examination of the risk and return characteristics of investing in specific locations, and the marginal impact that arises from the affluence or otherwise of those living in these locations. The return and risk data are segmented by location (capital city, major regional city and other) and by per capita taxable income (highest—1, middle—2 and lowest—3). It may be necessary to reduce the rental income to provide more affordable housing. However, assuming the houses are properly maintained, their capital value should reflect the value of similar properties offered for sale in a similar location at a similar time.

Finance valuation theory assumes that assets should be valued with reference to similar assets (or on a relative basis) and according to the future cash flows they are expected to generate. So, if two property portfolios are expected to generate identical cash flows for the same risk, then their prices and returns should be equivalent, regardless of whether these returns consist of capital gains, rent or a combination of both. That is, all else being equal, an investor is assumed to be interested only in the total risk adjusted portfolio return, regardless of the components that make up this return. This approach is borne out in the study by the Department of Human Services and is also evident in recent economic modelling of affordable property (Wood and Ong 2008; Wood, Watson et al. 2003).

4.2.1 Total return, capital gain, rental yield and Sharpe ratio

First, we define total return, capital gain and rental yield. Total property return $TR_{PC,t}$, is written as the sum of the end of period price, $P_{PC,t}$, and rental generated for the year, $R_{PC,t}$, less the beginning of period price, $P_{PC,t-1}$, all divided by the beginning of period price or:

$$TR_{PC,t} = \frac{P_{PC,t} + R_{PC,t} - P_{PC,t-1}}{P_{PC,t-1}} = \frac{P_{PC,t} - P_{PC,t-1} + R_{PC,t}}{P_{PC,t-1}}$$

With some rearrangement, this can be rewritten:

$$TR_{PC,t} = \frac{P_{PC,t}}{P_{PC,t-1}} - 1 + \frac{R_{PC,t}}{P_{PC,t-1}} = CG_{PC,t} + RY_{PC,t} \quad (1)$$

Where the capital gain, $CG_{PC,t}$, and rental yield, $RY_{PC,t}$, are defined respectively as:

$$CG_{PC,t} = (P_{PC,t}/P_{PC,t-1}) - 1 \quad (2)$$

$$RY_{PC,t} = R_{PC,t}/P_{PC,t-1} \quad (3)$$

It is likely that impact investment in housing for the homeless and vulnerable would involve lower rents less than those charged by the market. One result of the definition set out in equation (1) above is that a reduction in rent reduces total return, but the percentage change in total return is less than the initial percentage change in rent. For example, if rent is halved in a portfolio that generates capital gains of 20 per cent per annum and rental yield of 5 per cent per annum, this decreases the total return from an initial value of 25 per cent to 22.5 per cent, a decrease (in relative terms) of 10 per cent.

The Sharpe ratio is included in our analysis as a measure of risk-adjusted return and measures the average return earned in excess of a risk-free rate per unit of volatility (sd) or total risk. The Sharpe ratio is used because of the limited time series data available and its relevance when investors are poorly diversified or are sensitive to total risk. While high net wealth philanthropists might be well diversified, it is less clear that individual, private company shareholder or self-managed super fund impact investors are well diversified. The Sharpe ratio is also chosen because of the limited time series data available for analysis. The risk-free rate of return (rf) used for our calculations is the average of the overnight cash rates for the period of interest. For the period 2000 to 2014 this rate is 4.72 per cent per annum (Reserve Bank of Australia n.d.).

$$shp = (mean - rf)/sd \quad (4)$$

It should be noted that, because of the use of postcode level data, volatility estimates tend to understate the true individual property volatility. Individual property volatility is approximated by the sum of the within postcode volatility and the between postcode volatility although within postcode volatility is not available for this study.

4.2.2 Data

Housing sales and rental data is obtained from the CoreLogic RP Scorecard Postcode level data set supplied by the SIRCA. Postcode average taxable income per taxpayer is collected from the ATO and location classifications are obtained from the ABS. Summary statistics and general discussion concerning the data are provided in Appendix 1. Our analysis focuses initially on capital gains, then rental yield, and finally total returns, with attention directed at how these returns vary with the income of those living in an area.

4.2.3 Classification by taxable income

To identify the impact of income on the risk and return attributed to residential homes and units, taxable income-based portfolios are created by ranking postcode/year observations using ATO taxable income per taxpayer. These postcode/year taxable incomes per taxpayer are converted to 2014 dollars using the Australian consumer price index numbers supplied by the ABS (ABS n.d.). The real postcode/year level taxable income observations are then ranked and split into three equal groups (tertiles) with a value of one (1) for the lowest real taxable income per tax

payer, with a value of two (2) for the middle group and a value of three (3) for the group with the highest real taxable income per tax payer over the sample period. The tax data are summarised in Appendix Table A1.

4.2.4 Classification by location

Location-based portfolios are identified using postcodes organised by the 2011 SA4 codes (statistical area level descriptions and codes). Each of the SA4 codes and descriptions is allocated to one of three location classes. The first location class is for capital city areas (1), the second is major regional cities (2), and the third is the remaining SA4 codes (3) which cover rural areas and small towns. A small number of postcodes have more than one location class allocated. Where this occurs, the smallest of the location class numbers is used. This rule results in a bias towards allocating postcodes to a capital city location class (1) or a major regional city location class (2)²⁴.

4.2.5 Distribution and calculation of dwelling (house and unit) capital gains

The main objective of our analysis is to model the distribution of capital gains that residential houses and units produced over a recent 14-year period, although we acknowledge that future returns may not match those achieved historically. We calculate both the mean and standard deviation of annual capital gains at postcode level using mean sales price. The mean sales price is calculated for each of the financial years from 2001 through to 2014 inclusive and these are used in the calculation of annual capital gains for the 12 month periods ending June as set out in equation (2) above. All calculations are at postcode level and all gains are expressed as decimals.

Of interest to this study is the way that capital gains and volatility in capital gains varied with taxable income and with location. For example, for-profit investors might prefer investment in capital cities where the housing stock can be cheaply monitored, while social impact investors might prefer to invest in country or regional areas where the incidence of individuals sleeping rough is high. Similarly, for-profit investors might favour investment in the wealthier suburbs, while social impact investors might be interested in providing housing in those areas where individuals are relatively poor or in areas close to where individuals work.

As indicated in Appendix Tables A2 and A3, our analysis includes 14 years of annual mean selling price data for each postcode, giving an initial sample of 65,724 annual return postcode/year observations (36,935 for houses and 28,789 for units). The mean sales price was calculated, using total sales value divided by the number of sales for the year²⁵. The descriptive statistics appearing in Tables A2 and A3 in the Appendix include mean, capital gain, standard deviation (sd), minimum, maximum and number of postcode observations (N). These are reported separately for houses and units.

Table 2 below reports analysis of capital gains by income and location, including the mean capital gain, the standard deviation, the Sharpe ratio (shp) and the number of observations. These are organised by the taxable income per taxpayer and location. There are five key results evident in Table 2. First, for houses, around 66 per cent (7,160/10,803) of the highest taxable income postcodes were in a capital city location while around 58 per cent (6,231/10,677) of the lowest taxable income postcodes were outside the cities. For units, around 77 per cent

²⁴ The analysis was also conducted using the maximum instead of the minimum. This has little impact on the final results, though it did impose a bias towards the other location class. Therefore reported results use the minimum based rule.

²⁵ Analysis is conducted using various combinations of median and mean returns and nominal and real returns. We find that these choices have little impact on final reported results and so results for mean nominal returns are reported here.

(6,026/7,833) of the highest taxable income postcodes were in a capital city and around 42 per cent (1,783/4,272) of the lowest taxable income postcodes were outside capital or regional cities.

Table 2: Capital gains on houses and units: risk and return by taxable income per taxpayer and location

		Houses				Units			
		Real tax. income per taxpayer				Real tax. income per taxpayer			
Location	Stat.	Low-1	2	High-3	Total	Low-1	2	High-3	Total
Cap. city-1	mean	0.1070	0.1026	0.1021	0.1028	0.1791	0.1205	0.0921	0.1113
	sd	0.2419	0.2303	0.5353	0.4307	1.3142	0.4963	0.4338	0.6260
	Shp	0.2472	0.2406	0.1025	0.1292	0.1003	0.1477	0.1035	0.1024
	N	1,589	3,933	7,160	12,682	1,268	3,245	6,026	10,539
Reg. city-2	mean	0.1058	0.1399	0.1038	0.1183	0.1576	0.1359	0.1070	0.1373
	sd	0.3470	0.7250	0.2962	0.5167	1.0798	0.4978	0.4378	0.7476
	Shp	0.1690	0.1279	0.1911	0.1376	0.1023	0.1781	0.1365	0.1206
	N	2,857	2,400	1,134	6,391	1,221	1,507	742	3,470
Other-3	mean	0.2449	0.2198	0.2154	0.2306	0.1813	0.1323	0.1339	0.1509
	sd	2.3698	1.4223	1.3372	1.9085	0.9772	0.4483	0.4818	0.6998
	Shp	0.0834	0.1213	0.1258	0.0961	0.1372	0.1897	0.1800	0.1482
	N	6,231	4,718	2,509	13,458	1,783	1,928	1,065	4,776
Total	mean	0.1872	0.1607	0.1286	0.1587	0.1739	0.1274	0.0992	0.1262
	sd	1.8229	0.9996	0.7852	1.2788	1.1153	0.4833	0.4412	0.6692
	Shp	0.0768	0.1136	0.1036	0.0872	0.1136	0.1659	0.1179	0.1180
	N	10,677	11,051	10,803	32,531	4,272	6,680	7,833	18,785

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Second, postcode areas with higher real per taxpayer taxable income were generally populated with properties that earned lower capital gains than properties in the lower taxable income postcode areas. Capital gain standard deviation also tended to be lower in the higher income areas though there were important exceptions for houses in high-income postcode areas located in capital cities. Thus, property investments earning higher returns tend to attract greater volatility and so if impact investors choose to invest in lower taxable income postcode

areas then, on average, they might expect to receive greater capital gains commensurate with the greater risk associated with these areas.

Third, as we move from capital city areas to other areas, there was a tendency for capital gain mean and standard deviation to increase.

Fourth, the mean capital gain on houses was generally slightly higher than on units.

Fifth, the Sharpe ratio, as defined in equation (4) above, varied across the sub-classifications. In particular, the risk adjusted returns on units were generally higher outside the capital cities (location codes 2 and 3) as well as for those postcode areas falling in the middle taxable income tertile. There was also considerable variation for houses, though the lower income postcode areas in the capital and major regional cities sometimes generated higher risk adjusted returns.

This analysis was repeated using real capital gains rather than nominal capital gains as the measure of return on investment. While the mean and standard deviation in real capital gains were slightly smaller in magnitude, reflecting the impact of inflation, the differences were minimal, so these results are not reported separately. As before, both risk and capital gain varied with taxable income and location and higher risk was generally associated with higher return. Sharpe ratios also varied across the three taxable income classes and the three location classes.

4.2.6 Postcode level rental yield

The descriptive statistics for the postcode level average weekly advertised rent are reported in Appendices A4 and A5. Given there was no rent data for 2000 to 2003 and rental data were limited for 2004, our analysis focused on the years from 2005 to 2014. The number of postcode areas with rental data varied across the location classes included in the CoreLogic data. For example, over the period 2005 to 2014:

- 1 Houses; there were 13,870 year-postcode rental observations compared with 18,944 year-postcode selling price observations (73%) and,
- 2 Units; there were 8,942 year-postcode rental observations compared with 10,322 year-postcode selling price observations (87%).

While advertised rental data were not available for all postcodes, it was available for a considerable proportion of the postcodes covered by CoreLogic. In this analysis we include those postcode areas where rental data and selling price are available. Rental yield is calculated by multiplying the median weekly rent for the year ended June by 52 to approximate the annual rent. Annual rent is then divided by the mean selling price for the previous year and expressed as a decimal²⁶.

Rental yield is calculated and summarised using the same income and location classes developed for the analysis of capital gains as reported in Table 2 above. While the postcode observations are fairly evenly dispersed across the three location classes and across the three taxable income tertiles for capital gains, this is not the case for rental yield. CoreLogic does not provide an explanation for this restricted coverage, though it is likely that the availability of advertised rent information reflects variation in actual rental activity in the postcode areas. From the number of observations (N) reported for the each of the classifications in Table 3 it is apparent that relatively more rental yield data were available for postcodes in the capital cities, location class (1) and with highest taxable income postcodes (3).

²⁶ Rental yield was also calculated using the median selling price as the denominator for the previous year. This had minimal impact on the outcomes, so these results are not reported separately here.

The overall mean rental yield for the sample was 4.22 per cent per annum for houses and 4.57 per cent per annum for units (Table 3). Perhaps the most obvious difference between the distribution of rental yield and capital gains was the considerably smaller standard deviation reported for rental yield. Indeed, the rent yield standard deviation was around 1 per cent per annum compared with the capital gain standard deviation, which generally exceeded 20 per cent per annum. Capital gains were also considerably greater in magnitude than rental yield, with capital gains ranging from 10 per cent per annum to 20 per cent per annum (from 2.5 times to 5 times the average rental yield respectively).

Another point to note is that rental yield standard deviation, consistent with capital gains, tended to decrease as postcode taxable income increased. Standard deviation also increased with location code, with the lowest standard deviations for capital cities (1) and the highest standard deviations for the other location classification (3). The distribution of the rental yield standard deviation was not as consistent across the taxable income tertiles, and was generally higher in the taxable income tertiles one and three and lower in tertile two²⁷. The Sharpe ratio was negative in a number of cases in Table 3 when the mean rental yield fell below the average cash interest rate of 4.53 per cent during the period 2005 to 2014. Nevertheless, the Sharpe ratio for rental yield tended to decrease as the taxable income per taxpayer increased, and was lower in the capital cities location class relative to the other two location classes.

Table 3: House and unit rental yield by taxable income per taxpayer and location

Location	Stat.	Houses				Units			
		Real tax. income per taxpayer				Real tax. income per taxpayer			
		Low-1	2	High-3	Total	Low-1	2	High-3	Total
Cap. city-1	mean	0.0454	0.0424	0.0359	0.0387	0.0503	0.0477	0.0426	0.0447
	sd	0.0081	0.0070	0.0090	0.0092	0.0099	0.0090	0.0090	0.0095
	Shp	0.0142	-0.4078	0.0435	0.7238	0.4990	0.2611	-0.3042	-0.0669
	N	761	1,948	4,545	7,254	595	1,409	3,612	5,616
Reg. city-2	mean	0.0480	0.0456	0.0447	0.0461	0.0502	0.0485	0.0450	0.0478
	sd	0.0092	0.0078	0.0168	0.0116	0.0099	0.0097	0.0127	0.0109
	Shp	0.2961	0.0350	0.0346	0.0671	0.4934	0.3275	-0.0273	0.2296
	N	645	921	689	2,255	311	539	400	1,250
Other-3	mean	0.0478	0.0449	0.0493	0.0472	0.0499	0.0460	0.0490	0.0481

²⁷ Real rent yield results were also calculated, but as these results varied little, they are not reported separately.

Location	Stat.	Houses				Units			
		Real tax. income per taxpayer				Real tax. income per taxpayer			
		Low-1	2	High-3	Total	Low-1	2	High-3	Total
	sd	0.0133	0.0111	0.0216	0.0155	0.0108	0.0106	0.0155	0.0125
	Shp	0.1862	-0.0331	0.1861	0.1197	0.4242	0.0621	0.2370	0.2214
	N	1,160	1,211	908	3,279	437	572	450	1,459
Total	mean	0.0472	0.0439	0.0388	0.0422	0.0501	0.0474	0.0434	0.0457
	sd	0.0110	0.0087	0.0137	0.0122	0.0102	0.0096	0.0104	0.0104
	Shp			-	-				
		0.1691	-0.1613	0.4723	0.2572	0.4721	0.2239	-0.1804	0.0414
	N	2,626	4,100	6,121	12,847	1,357	2,519	4,452	8,328

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

4.2.7 Distribution of total returns without taxes or transaction costs

Analysis in this section focuses on total returns, so postcodes were only included when selling price and advertised rental data were available. The analysis (Table 4) builds on the prior findings and discusses the possible effects of reduced rental yield on the total returns for an impact investor. It is likely that rents for the homeless and vulnerable would need to be reduced relative to market rent. Hence, separate analysis of the impact of changing rental yield is also reported in this section.

Much of the published research, dealing with property in Australia, uses rental estimates obtained from the existing stock of rent paying properties. This rate is assumed applicable to all available properties in calculation of total return on portfolios of residential properties. In contrast, the inclusion here of postcode areas where both rental yield and capital gain are available avoids the need to select the most appropriate rental yield for a postcode area for which rental yield is not reported. This follows the approach taken by the Department of Human Services (2010) when estimating internal rates of return on Melbourne rental properties.

Table 4: Total return for postcodes where both capital gain and rental yield are available

Location	Stat.	Houses				Units			
		Real tax. income per taxpayer				Real tax. income per taxpayer			
		Low-1	2	High-3	Total	Low-1	2	High-3	Total
Cap. city-1	mean	0.0978	0.0983	0.0992	0.0988	0.1146	0.1108	0.1057	0.1079
	sd	0.1775	0.1420	0.1289	0.1383	0.3702	0.2760	0.2083	0.2480
	shp	0.2959	0.3731	0.4183	0.3870	0.1871	0.2375	0.2900	0.2525
	N	760	1,948	4,544	7,252	595	1,408	3,610	5,613
Reg. city- 2	mean	0.0614	0.0890	0.0947	0.0822	0.0624	0.0981	0.0819	0.0838
	sd	0.1095	0.1077	0.1329	0.1168	0.1907	0.2869	0.1864	0.2362
	shp	0.1474	0.4057	0.3715	0.3159	0.0894	0.1838	0.1964	0.1630
	N	707	940	668	2,315	325	539	389	1,253
Other-3	mean	0.0807	0.0961	0.1043	0.0930	0.0900	0.0777	0.0922	0.0859
	sd	0.2303	0.2624	0.1836	0.2315	0.3524	0.1875	0.1726	0.2454
	shp	0.1539	0.1937	0.3214	0.2059	0.1268	0.1730	0.2717	0.1652
	N	1,159	1,212	911	3,282	438	572	447	1,457
Total	mean	0.0805	0.0955	0.0995	0.0943	0.0942	0.1006	0.1023	0.1004
	sd	0.1895	0.1805	0.1389	0.1642	0.3303	0.2613	0.2032	0.2460
	shp	0.1857	0.2782	0.3903	0.2986	0.1479	0.2115	0.2802	0.2241
	N	2,626	4,100	6,123	12,849	1,358	2,519	4,446	8,323

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

A couple of observations can be made from the data in Table 4 above. The first is the low total returns reported in this table relative to the capital gains reported in Table 2. The second is the less pronounced link between volatility and return. Third, the level of returns and the level of volatility are lower in Table 4 for matched total returns than in Table 2 for capital gains. For example, the average return for the capital gains on houses reported in Table 2 is 15.87 per cent per annum, with volatility of 127.88 per cent per annum. For the sample consisting of matched capital gains and rental return postcodes (Table 4), the mean return on houses is 9.43 per cent per annum, with volatility of 16.42 per cent per annum. This variation is consistent with the tendency for CoreLogic data not to include rental yield information for many of the high return/high volatility postcode areas that drive the results in Table 2.

To examine this issue further, the analysis in Table 5 below is based on total return using rental yield estimated at the location class rather than using specific postcode level data. Rental yield is estimated at location class level for those postcodes with rental yield information. These averages are then allocated back to all postcodes that fall within the location class, ensuring that each postcode in the data set has a location class average rental yield allocated to it. This method produces results more closely related to the capital gains results reported in Table 2, except that the mean returns are about 4 per cent higher, reflecting the addition of rental return. Consistent with the low rental yield volatility, there is little change in volatility with the use of this data. The positive relation between Sharpe ratio and taxable income code and the negative relation between Sharpe ratio and location class are not as clear in Table 5 (or Table 2) as in Table 4²⁸.

²⁸ The Sharpe ratios reported in Table 4 use the interest rate of 4.52 per cent per annum consistent with the time period, 2005 to 2014, while the Sharpe ratios for Table 5 use the interest rate of 4.72 per cent per annum calculated for the period from 2000 to 2016.

Table 5: Total return using all available postcodes and rental yield calculated at location class (broad area) level

		Houses				Units			
		Real tax. income per taxpayer				Real tax. income per taxpayer			
Location	Stat.	Low-1	2	High-3	Total	Low-1	2	High-3	Total
Cap. city-1	mean	0.1483	0.1439	0.1433	0.1441	0.2203	0.1618	0.1333	0.1526
	sd	0.2419	0.2303	0.5353	0.4307	1.3142	0.4963	0.4339	0.6261
	shp	0.4179	0.4198	0.1794	0.2249	0.1317	0.2309	0.1985	0.1683
	N	1,589	3,933	7,157	12,679	1,268	3,245	6,024	10,537
Reg. city-2	mean	0.1526	0.1866	0.1505	0.1650	0.2040	0.1826	0.1537	0.1839
	sd	0.3469	0.7250	0.2962	0.5167	1.0805	0.4977	0.4378	0.7477
	shp	0.3037	0.1923	0.3487	0.2279	0.1451	0.2720	0.2432	0.1828
	N	2,858	2,400	1,134	6,392	1,220	1,508	742	3,470
Other-3	mean	0.2923	0.2669	0.2628	0.2779	0.2288	0.1799	0.1810	0.1984
	sd	2.3695	1.4224	1.3366	1.9083	0.9764	0.4484	0.4821	0.6998
	shp	0.1034	0.1545	0.1613	0.1209	0.1860	0.2959	0.2775	0.2161
	N	6,233	4,717	2,511	13,461	1,786	1,927	1,064	4,777
Total	mean	0.2335	0.2057	0.1718	0.2036	0.2192	0.1717	0.1417	0.1700
	sd	1.8227	0.9998	0.7853	1.2789	1.1151	0.4833	0.4414	0.6694
	shp	0.1022	0.1585	0.1587	0.1223	0.1542	0.2576	0.2142	0.1835
	N	10,680	11,050	10,802	32,532	4,274	6,680	7,830	18,784

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Comparison of Tables 4 and 5 provide some insight into the impact of restricting the sample to those postcode areas where both capital gain and rental yield were available. Imposing this restriction resulted in lower more stable Sharpe ratios and less variation in return and volatility across the income and location classifications. It is possible that postcodes with no rental yield data included few if any rental properties and so including rental yield as well as capital gains may have artificially inflated the total returns for these postcode areas. It is also possible that, in some fundamental sense, rent paying properties generated lower capital gains and exhibited less return volatility on average than properties that were not rented. This may have arisen because owner-occupiers maintained their properties to a higher level than investors and

thereby achieved higher capital gains. Further examination of this question is beyond the scope of this project though it is an important question for future research and richer data sets.

4.2.8 Social impact investment and the impact of lower rental yields

The analysis reported in Table 3 above shows that residential rental yield averaged 4.22 per cent for houses and 4.57 per cent for units for the period 2005–14, using a restricted data set where both rental yield and capital gain were available for a postcode.

The analysis reported in Tables 6 and 7 uses the matched rental yield and capital gain postcode data that underlies Table 4. The interest rate used in Sharpe ratio calculations is 4.53 per cent per annum in line with the time period covered by the data set, 2005 to 2014. These tables show the impact of imposing lower than market levels of rental yield on total returns. Total returns are calculated with rental yield adjusted to reflect five different scenarios, zero rental yield (0%), 25 per cent, 50 per cent, 75 per cent, through to 100 per cent of the rental yield reported for the postcode. The results are reported in Table 6 for taxable income per taxpayer; with the lowest taxable income (1), middle level taxable income (2) and highest taxable income (3)). Similarly, results are reported in Table 7 for the location classes (capital city (1), major regional city (2) and other locations (3)).

There are some points to be made here. First, this analysis is limited to those postcode areas where both rental yield and capital gain data are available. Thus, changes in rental yield have a considerably greater impact on total return in this analysis than would be the case if the extended sample as per Table 5 were used for analysis²⁹. Second, from the data reported in Tables 6 and 7, changes in rental yield affect total return in a linear fashion. If the rental yield and capital gain components are of similar magnitude then halving the rental yield decreased total returns by 25 per cent³⁰. Third, because capital gains were considerably more volatile than rental yields, total return volatility was barely affected by changes in rental yield. This later effect is particularly evident in Tables 6 and 7 where changes in the proportion of rental yield included in the total return calculation had virtually no impact on total return volatility. However, for an investor, a decrease in rental yield resulted in a small decrease in volatility, with an associated decrease in the Sharpe ratio.

²⁹ We have replicated the analysis reported in Tables 6 and 7 using the data that underlies Table 5 above and while the returns volatility is greater, there is little change in the basic findings and so this analysis is not reproduced separately.

³⁰ If capital gains = rental yield = x and the rental yield is halved then the total return falls from $2x$ to $x+1/2x$ and so the percentage decrease in total return is $(2x - x+1/2x)/2x = 25$ per cent.

Table 6: House and unit total return with rental yield adjustment, by taxable income per taxpayer

		Houses					Units				
Tax. Inc.	% rent	0%	25%	50%	75%	100%	0%	25%	50%	75%	100%
1	mean	0.033	0.045	0.057	0.069	0.080	0.044	0.057	0.069	0.082	0.094
	sd	0.186	0.187	0.188	0.189	0.190	0.327	0.328	0.329	0.330	0.330
	shp	-0.064	-0.001	0.062	0.124	0.186	-0.004	0.034	0.072	0.110	0.148
	N	2,626	2,626	2,626	2,626	2,626	1,358	1,358	1,358	1,358	1,358
2	mean	0.052	0.063	0.074	0.085	0.096	0.053	0.065	0.077	0.089	0.101
	sd	0.178	0.179	0.179	0.180	0.181	0.259	0.259	0.260	0.261	0.261
	shp	0.035	0.097	0.158	0.218	0.278	0.030	0.076	0.121	0.167	0.212
	N	4,100	4,100	4,100	4,100	4,100	2,519	2,519	2,519	2,519	2,519
3	mean	0.061	0.070	0.080	0.090	0.099	0.059	0.070	0.081	0.091	0.102
	sd	0.136	0.136	0.137	0.138	0.139	0.201	0.201	0.202	0.203	0.203
	shp	0.113	0.184	0.254	0.323	0.390	0.067	0.121	0.175	0.228	0.280
	N	6,123	6,123	6,123	6,123	6,123	4,446	4,446	4,446	4,446	4,446

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Table 7: House and unit total return with rental yield adjustment, by location

		Houses					Units				
Location	% rent	0%	25%	50%	75%	100%	0%	25%	50%	75%	100%
1	mean	0.060	0.070	0.079	0.089	0.099	0.063	0.074	0.086	0.097	0.108
	sd	0.136	0.137	0.137	0.138	0.138	0.246	0.246	0.247	0.247	0.248
	shp	0.109	0.180	0.249	0.319	0.387	0.073	0.118	0.163	0.208	0.253
	N	7,252	7,252	7,252	7,252	7,252	5,613	5,613	5,613	5,613	5,613

Location	% rent	Houses					Units						
		0%	25%	50%	75%	100%	0%	25%	50%	75%	100%		
2	mean	0.036	0.048	0.059	0.071	0.082	0.036	0.048	0.060	0.072	0.084		
	sd	0.113	0.114	0.115	0.116	0.117	0.233	0.234	0.234	0.235	0.236		
	shp	-	0.081	0.021	0.121	0.219	0.316	-	0.040	0.011	0.062	0.113	0.163
	N	2,315	2,315	2,315	2,315	2,315	2,315	1,253	1,253	1,253	1,253	1,253	
3	mean	0.046	0.058	0.069	0.081	0.093	0.038	0.050	0.062	0.074	0.086		
	sd	0.228	0.229	0.229	0.230	0.231	0.242	0.243	0.243	0.244	0.245		
	shp	-	0.002	0.054	0.105	0.156	0.206	-	0.031	0.019	0.068	0.117	0.165
	N	3,282	3,282	3,282	3,282	3,282	3,282	1,457	1,457	1,457	1,457	1,457	

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

The key observations to draw from this analysis are that when analysing property, it is important to include both rent and capital gain and to consider the risks involved, including the volatility of the capital gains. The high return per unit of risk attributable to rental yield is important to risk adverse investors. For example, the Sharpe ratio tended to increase as the rental yield allocation increased (rental discounting decreased) from 0 to 100 per cent (see both Tables 6 and 7). Thus, those who invest in a portfolio of properties that accepts lower rentals in order to help the homeless or vulnerable would achieve a lower risk adjusted rate of return. However, the analysis in Table 2 shows that capital gains were substantial for many postcode areas (20% or more on average) and the effect of changes to rental return (around 4%) across all postcodes may be less significant than suggested in Tables 6 and 7 (limited to postcodes with rental information).

4.2.9 Discussion (no taxes or transactions costs)

The analysis reported in Tables 2 through 7 shows that both risk and return varied with location (capital city, major regional city and other locations) and with the level of real taxable income per taxpayer (low, medium and high). There are two main findings from the capital gains based analysis. First, houses and units in postcode areas with greater taxable income per taxpayer exhibited lower risk and return than properties located in postcode areas with lower taxable income per taxpayer. Second, houses and units in postcode areas located in capital cities exhibited lower risk and return than properties located in regional cities and these exhibited lower risk and return than properties located in postcode areas that were neither capital city nor major regional city areas.

When analysis was restricted to those postcodes where both rental yield and sales price were available, there was less variation in total return and risk, though the Sharpe ratio tended to

increase with the taxable income per taxpayer. The Sharpe ratio was also larger for capital city properties compared with properties in regional city or other areas. When total returns are calculated using imputed rental yield, the results more closely follow the capital gains results. Further, reducing rental yield reduces total return in a linear fashion and reduces the Sharpe ratio. This base case analysis ignores transaction costs and taxes. The following section explores the impact of transaction costs and taxes on total returns to residential property.

4.2.10 Impact of taxes and transaction costs

The analysis so far relies on the assumption that the marginal investor is not taxed and that transaction costs are immaterial. As indicated in Appendix B, the impact of taxes and transaction costs are often substantial, though there are individuals and organisations with philanthropic objectives that are not subject to taxation. There are other organisations that may have lower transaction costs due to greater scale or efficiency. The base case analysis with zero costs and no tax may best apply to this group. This section focuses on the returns earned by those entities that face material transaction costs or are subject to income tax.

As with the previous section, total returns are calculated using the matched rental yield/selling price data. This analysis draws upon the work of the Department of Human Services (2010) and unpublished work by researchers at RMIT (see Appendix B) in identifying average taxes and costs incurred by Australian resident taxed investors investing in the Melbourne residential property market. Taxes and costs include income tax, capital gains tax, property tax, stamp duty, management fees, occupancy rates, purchase costs and selling costs as summarised in Section B2 of Appendix B and Tables B1 to B4 in Appendix B. Definitions of the after tax and transaction cost returns are set out in Section B.3 of Appendix B.

We acknowledge the exclusion of certain operational costs and depreciation from this analysis due to data limitations. These items may affect after-tax return, though the impact will vary with the type of property, impact investor and the nature of the service offered to renters. For example, furnished properties will create more opportunities for depreciation than unfurnished properties. The level of repairs and maintenance will vary from property to property and from renter to renter. Various maintenance costs are summarised as a proportion of rent. This is an approximation though more accurate data is not available for the purposes of this study. Further breakages of a capital nature would be reflected in change in value of the property, while the impact of other breakages is not generally the responsibility of the property owner and so are excluded from return calculations. Finally, there is no particular assumption made about tenants for the purposes of return calculation as, to the best of the researcher's knowledge, there is no legal impediment to the purchaser and acquirer agreeing either to continue or to cancel an existing tenancy arrangement on sale of the property. The cost of these arrangements would be immaterial for return calculation purposes. While depreciation is not explicitly accounted for in the analysis, it can be dealt with by treating it as another component of transaction costs and is dealt with implicitly in the simulation where costs are varied from zero upwards.

For our analysis, it is assumed that the costs reported for Melbourne provide a reasonable approximation of the costs faced by landlords more generally across Australia. While there is variation across individual items, it is expected that the total costs will not move too far from these numbers, given the tendency for least cost investment pressure to remove extreme differences in transaction costs that occur from time-to-time across Australian cities. Finally, rental costs are expressed as a percentage of rent payments, and purchasing and selling costs are expressed as a percentage of the purchase price or sales price respectively.

If the marginal property trader faces taxes and transaction costs then both rental yield and realised capital gains require adjustment for these effects, but tax is payable only on realised profits and losses. We use two models. In the first, properties are assumed to be held indefinitely and the 12 month return calculation reflects only those costs incurred in managing

the property over the 12 month period. There are four groups of Australian residential property investors included in the following analysis. The first group consists of the philanthropists who are not taxed but still face transaction costs. The after-transaction costs total return for this group is:

$$ATR_{P,t}^{LR} = \left((R_t(1 - \theta - C)) + P_t \right) / P_{t-1} - 1 = RY_t(1 - \theta - C) + CG_t \quad (5)$$

The second group consists of taxed individuals with income tax rate $\gamma_I = 47\%$ with after-tax and transaction costs total return of:

$$ATR_{I,t}^{LR} = \left((R_t(1 - \theta - C)) \times 0.53 \right) / P_{t-1} + P_t / P_{t-1} - 1 = RY_t(1 - \theta - C) \times 0.53 + CG_t \quad (6)$$

The third is for taxed corporations with an income tax rate $\gamma_I = 30\%$.

$$ATR_{C,t}^{LR} = \left((R_t(1 - \theta - C)) \times 0.7 \right) / P_{t-1} + P_t / P_{t-1} - 1 = RY_t(1 - \theta - C) \times 0.7 + CG_t \quad (7)$$

The final group of residential property investors consists of superannuation funds with an income tax rate $\gamma_I = 15\%$.

$$ATR_{S,t}^{LR} = \left((R_t(1 - \theta - C)) \times 0.85 \right) / P_{t-1} + P_t / P_{t-1} - 1 = RY_t(1 - \theta - C) \times 0.85 + CG_t \quad (8)$$

In the second model, the residential property is purchased at the start of the 12-month return calculation period and sold at the end of this period, so the annual return includes the purchase and selling costs. The rate of return is calculated as follows (see Equations B.5, B.6, B.7 and B.8 respectively in Appendix B). The total return after transaction costs for the first group, the philanthropists, is calculated as follows:

$$ATR_{P,t}^{12m} = \left\{ (R_t(1 - \theta - C)) + \left(P_t(1 - KC_t) - (P_{t-1}(1 + KC_{t-1})) \right) \right\} / (P_{t-1}(1 + KC_{t-1})) \quad (9)$$

For the second group, taxed individuals, the total return is:

$$ATR_{I,t}^{12m} = \left\{ (R_t(1 - \theta - C)) \times 0.53 + \left(P_t(1 - KC_t) - (P_{t-1}(1 + KC_{t-1})) \right) \times 0.765 \right\} / (P_{t-1}(1 + KC_{t-1})) \quad (10)$$

For the third group, taxed corporations, the total return is defined:

$$ATR_{C,t}^{12m} = \left\{ (R_t(1 - \theta - C)) \times 0.7 + \left(P_t(1 - KC_t) - (P_{t-1}(1 + KC_{t-1})) \right) \times 0.85 \right\} / (P_{t-1}(1 + KC_{t-1})) \quad (11)$$

Finally, the fourth group concerns superannuation funds taxed at 15 per cent, with total return of:

$$ATR_{S,t}^{12m} = \left\{ (R_t(1 - \theta - C)) \times 0.85 + \left(P_t(1 - KC_t) - (P_{t-1}(1 + KC_{t-1})) \right) \times 0.9 \right\} / (P_{t-1}(1 + KC_{t-1})) \quad (12)$$

Analysis is conducted separately for houses and units. For houses (units) carrying costs, C, account for about 42 per cent (37%) of rent as set out in Table B1. The occupancy rate adjustment, θ , is set at 1.6 per cent. The largest of the purchase costs is stamp duty and this item accounts for 4 per cent of the value of the property (Table B2). Selling costs consist of selling fees of 3 per cent (Table B3). Tax rates vary with the classifications, philanthropic, taxed individuals, corporations and superannuation funds. For example, the maximum income tax rate for individuals is 47 per cent, for companies 30 per cent and for superfunds 15 per cent. The capital gains tax for individuals is 24.5 per cent, for companies 30 per cent and for superannuation funds 10 per cent and this is paid on actual sale of the property. The taxed investors are assumed to pay tax on capital gains. Property conveyance costs are immaterial given the average selling price over the period of the study and so these are ignored in the following analysis. The maximum personal tax rate of 47 per cent is applied to the risk-free rate

(for the period 2005 to 2016, the rate is 4.53% per annum) to give an after-tax interest rate of 2.40 per cent per annum used in the calculation of Sharpe ratios.

Tables 8 and 9 below focus on total returns adjusted for transaction costs and taxes that are earned over the long-term. These residential property investors hold their property for long periods of time, such that selling and purchase costs incurred when the properties are eventually replaced are essentially immaterial after accounting for the time value of money. For example, if the appropriate real discount rate for a residential property were 5 per cent per annum, and the investor considered holding a residential property for 40 years, the present value effect is 0.1420. Thus, selling costs of 3 per cent incurred in 40 years' time are worth just 0.43 per cent in today's terms ($3\% * 0.1420 = 0.43$). This assumption appears reasonable given that government-built and acquired residential properties have traditionally been in use for very long periods. It is assumed that the same would apply to social impact investment funded properties.

Table 8 below reports the total return calculated across the three taxable income per capita groups. The first point to note from this analysis is the impact of rent taxes on total returns. The philanthropists face no taxes but incur transaction costs. This group earns the highest after-tax and transaction cost returns. Individuals who are taxed at the highest marginal rate earn the lowest total return, followed by companies, and superannuation funds with the lowest tax rates of the three taxed groups.

Second, while not material in effect, the volatility of total returns after transaction costs and tax is lower and the decrease in volatility follows the decrease in tax rate across the four groups.

Third, Sharpe ratios tend to increase as you move from low per capita taxable income postcode areas to high per capita taxable income postcode areas. This is driven both by increasing after-tax and transaction cost total returns and decreasing volatility and is evident for both houses and for units. This tendency was also evident when there is no tax or no transaction cost adjustment (total column in Table 4).

Finally, the magnitude of total returns clearly reflects the impact of transaction costs and taxes. For example, individual impact investors investing in a house in a high income postcode area with no tax and no transaction costs earn a return of 9.95 per cent per annum with volatility of 13.89 per cent and a Sharpe ratio of 0.3903 (Table 4). After taxes and transaction costs, an otherwise identical individual impact investor investing in a house earns a return of 7.23 per cent per annum with volatility of 13.64 per cent and a Sharpe ratio of 0.3539 on their housing investment (Table 8). Total return, volatility and Sharpe ratio are all reduced with imposition of taxes and transaction costs.

Table 9 below focuses on the variations in the after-tax and transaction costs across the three location classes. The after-tax analysis reported in Table 9 reveals reduced returns when investing outside of the capital cities, though this varies with the tax rate of the investor. For example, a superannuation fund investing in houses in a capital city earns 7.87 per cent after taxes and transaction costs with volatility of 13.71 per cent and Share ratio of 0.3989. The same investor choosing to invest in a major regional city would earn 5.82 per cent after taxes and transaction costs with volatility of 11.48 per cent and Share ratio of 0.2977.

Table 8: Long-term investment horizon, transaction costs and taxes organised by taxable income

Tax. inc.	Stat.	Houses				Units			
		no tax	ind.	comp.	super	no tax	ind.	comp.	super
Low-1	mean	0.0599	0.0474	0.0519	0.0559	0.0711	0.0578	0.0626	0.0669
	sd	0.1880	0.1872	0.1875	0.1878	0.3281	0.3273	0.3276	0.3279
	shp	0.1908	0.1249	0.1488	0.1699	0.1435	0.1033	0.1179	0.1307
	N	2,625	2,625	2,625	2,625	1,356	1,356	1,356	1,356
2	mean	0.0765	0.0648	0.0690	0.0727	0.0799	0.0674	0.0719	0.0759
	sd	0.1795	0.1790	0.1792	0.1794	0.2602	0.2594	0.2597	0.2599
	shp	0.2922	0.2280	0.2513	0.2717	0.2150	0.1671	0.1844	0.1997
	N	4,099	4,099	4,099	4,099	2,518	2,518	2,518	2,518
High- 3	mean	0.0826	0.0723	0.0760	0.0793	0.0833	0.0718	0.0760	0.0797
	sd	0.1373	0.1364	0.1367	0.1370	0.2021	0.2015	0.2017	0.2019
	shp	0.4267	0.3539	0.3803	0.4036	0.2935	0.2373	0.2577	0.2756
	N	6,121	6,121	6,121	6,121	4,448	4,448	4,448	4,448

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Table 9: Long-term investment horizon, transaction costs and taxes organised by location class

Tax.Inc.	Stat.	Houses				Units			
		no tax	ind.	comp.	super	no tax	ind.	comp.	super
Cap. city–1	mean	0.0820	0.0717	0.0754	0.0787	0.0885	0.0766	0.0809	0.0847
	sd	0.1373	0.1367	0.1369	0.1371	0.2470	0.2465	0.2467	0.2468
	shp	0.4222	0.3490	0.3755	0.3989	0.2609	0.2135	0.2307	0.2458
	N	7,251	7,251	7,251	7,251	5,613	5,613	5,613	5,613
Reg. city–2	mean	0.0621	0.0499	0.0543	0.0582	0.0614	0.0488	0.0533	0.0574
	sd	0.1151	0.1141	0.1145	0.1148	0.2330	0.2322	0.2325	0.2328
	shp	0.3308	0.2265	0.2645	0.2977	0.1605	0.1066	0.1262	0.1434
	N	2,314	2,314	2,314	2,314	1,252	1,252	1,252	1,252
Other–3	mean	0.0726	0.0601	0.0646	0.0686	0.0651	0.0524	0.0570	0.0611
	sd	0.2297	0.2288	0.2291	0.2294	0.2437	0.2427	0.2430	0.2433
	shp	0.2114	0.1576	0.1771	0.1943	0.1688	0.1170	0.1358	0.1523
	N	3,280	3,280	3,280	3,280	1,457	1,457	1,457	1,457

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Tables 10 and 11 consider investors who buy a residential property, hold it for 12 months and then sell the property and include the taxes and transaction costs that apply to the rental income and sale of the property. The time value of money effect on selling costs is material in this case and so selling costs now become very much more important in estimating residential property returns. The Sharpe ratio is negative in all cases, regardless of whether the investment is in houses or units because the after-tax and transaction cost total returns do not exceed the after-personal tax risk free rate (2.4% per annum).

In Table 10 below, returns after transaction costs and taxes for the lowest taxable income postcode category (1) are generally negative though positive returns are evident for the highest taxable income tax postcode areas (3), across the four tax rate groups (no tax, individual, company or superannuation funds) for both houses and units. Return volatility for houses is also greatest for the lowest taxable income per capita postcode areas (1). This is also true for units though the volatility in unit total returns after taxes and transaction costs is somewhat higher than that reported for houses. The risk-adjusted rate of return, as measured by the Sharpe ratio, is least negative for the high income class (1) for no tax individuals and for superannuation funds though the middle taxable income post code areas report less negative Sharpe ratios for the taxed individual and corporate investors. This applies for both houses and units.

Table 10: 12 month investment horizon, transaction costs and taxes organised by taxable income

Tax. inc.	stat.	Houses				Units			
		no tax	ind.	comp.	super	no tax	ind.	comp.	super
Low-1	mean	-0.0107	-0.0142	-0.0075	-0.0109	0.0002	0.0065	0.0001	0.0015
	sd	0.1754	0.1338	0.1228	0.1578	0.3061	0.2338	0.2142	0.2754
	shp	-0.1977	-0.2855	-0.2564	-0.2212	0.0790	0.1306	0.1127	0.0927
	N	2,625	2,625	2,625	2,625	1,356	1,356	1,356	1,356
2	mean	0.0047	-0.0020	0.0033	0.0031	0.0080	0.0001	0.0056	0.0059
	sd	0.1675	0.1279	0.1172	0.1507	0.2427	0.1853	0.1699	0.2184
	shp	-0.1152	-0.2033	-0.1766	-0.1390	0.0659	0.1291	0.1083	0.0828
	N	4,099	4,099	4,099	4,099	2,518	2,518	2,518	2,518
High-3	mean	0.0103	0.0030	0.0072	0.0083	0.0111	0.0030	0.0078	0.0088
	sd	0.1281	0.0975	0.0896	0.1152	0.1885	0.1439	0.1320	0.1696
	shp	-0.1067	-0.2158	-0.1871	-0.1368	0.0684	0.1462	0.1229	0.0895
	N	6,121	6,121	6,121	6,121	4,448	4,448	4,448	4,448

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Table 11: 12 month investment horizon, transaction costs and taxes organised by location class

Tax. inc.	Stat.	Houses				Units			
		no tax	ind.	comp.	super	no tax	ind.	comp.	super
Cap. city–1	mean	0.0098	0.0025	0.0068	0.0077	0.0159	0.0065	0.0111	0.0131
	sd	0.1281	0.0977	0.0897	0.1152	0.2304	0.1760	0.1613	0.2073
	shp	-0.1112	-0.2196	-0.1915	-0.1412	-0.0351	-0.0995	-0.0797	-0.0525
	N	7,251	7,251	7,251	7,251	5,613	5,613	5,613	5,613
Reg. city–2	mean	-0.0087	-0.0125	-0.0061	-0.0090	-0.0092	-0.0132	-0.0065	-0.0096
	sd	0.1074	0.0817	0.0752	0.0966	0.2174	0.1659	0.1522	0.1956
	shp	-0.3041	-0.4467	-0.3999	-0.3422	-0.1530	-0.2241	-0.2003	-0.1719
	N	2,314	2,314	2,314	2,314	1,252	1,252	1,252	1,252
Other–3	mean	0.0012	-0.0051	0.0008	-0.0002	-0.0058	-0.0105	-0.0040	-0.0065
	sd	0.2143	0.1635	0.1500	0.1928	0.2273	0.1734	0.1591	0.2045
	shp	-0.1066	-0.1782	-0.1547	-0.1258	-0.1310	-0.1992	-0.1762	-0.1492
	N	3,280	3,280	3,280	3,280	1,457	1,457	1,457	1,457

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

4.2.11 Discussion (with taxes or transactions costs)

The main findings arising from the introduction of taxes and transaction costs are as follows:

- 1 The investment period was critical to residential property investment performance. It is very costly to regularly buy and sell residential properties, but over the long term, selling costs and capital gains taxes diminish in present value terms. Consequently, investors who wish or need to regularly adjust their asset class allocations should seek exposure to the residential property market through indirect investment vehicles such as shares in property corporations or units in property trusts, rather than attempt to invest directly in residential property investment.
- 2 Taxes and transaction costs reduced total financial returns, total return volatility and the Sharpe ratio for the full sample and across the three taxable income classes and across the three location classes.
- 3 The better performing investments were generally located within the higher taxable income per capita postcode areas.
- 4 The better performing investments in terms of total returns on houses and units were generally located in capital city postcode areas though this ranking is less clear for Sharpe ratios, where the country postcodes offered stronger risk-adjusted returns in some cases.

There are important limitations to any study that attempts to model taxes and transaction costs because of the variation evident in properties. Certain operational costs and depreciation are excluded from this analysis due to data limitations. The impact on after-tax return will vary with the property, impact investor and service offered to renters.

4.3 Policy development implications

It has been argued that an affordable residential property trust may not be a viable investment for large investors like superannuation funds (Newell, Lee et al. 2015). Our analysis suggests that this argument may be overly pessimistic. Nonetheless, there are few listed or unlisted investment options presently that provide investors with exposure to the residential property market on a pooled basis. This lack of a specific asset class in Australia that provides indirect and diversified exposure to residential housing raises challenges when considering the development of social impact property funds to provide affordable housing or housing for the vulnerable.

Our empirical findings suggest that social impact financial models that rely solely on rental streams may be possible and could provide a steady annuity stream to investors in the current low interest rate environment. Our analysis of rental data for Australian residential properties show quite stable cash flows over the period of the study. Separating rental yield from capital gains is conceivable. This could be achieved by securitising the residential property portfolio, creating separate rental stream tranches and capital gains tranches. The difficulty would lie with the development of liquid markets for these securities. While we do not follow up on this possibility in this paper, this does provide a useful topic for future research.

Our research found that most of the returns on residential property investment during the study period arose from capital gains. This suggests that equity capital invested in social impact structures would need exposure to the capital gains component of returns, either through direct investment or through investment in securities, preferably tradable on a secondary market. Recent government proposals to support development of managed investment trusts targeted at 'build to rent' affordable housing projects would provide a first step in achieving market liquidity, as would establishment of a bond aggregator. Although rental yield does not represent a major component of total return, impact investors investing in affordable housing assets would need to accept lower than market returns. However, the discount on rent may vary between a small amount (for example 10%), to providing properties at a social rent based on welfare payments. Development of a range of affordable housing based securities, based on rental yield discounts along that continuum, and a liquid market for these securities, would provide impact investors with the opportunity to create a portfolio of affordable housing securities which meets individual requirements for a mix between financial and social return.

The returns data demonstrate the total returns on residential property investment including capital gains and rental income during the study period. Reported rental income is gross and any operational costs, including depreciation, would reduce the indicated rental stream and the total returns to investors. Nevertheless, our transaction cost and tax simulations effectively allow for operational costs in simulations in which costs are allowed to vary from zero upwards. The likely operational costs in projects designed to provide affordable housing for vulnerable persons would vary markedly. The specific costs of developing and operating these properties would depend on the nature, scale, structure and efficiency of the projects and the investor returns would also be impacted by the allowable deductions for tax purposes.

Importantly, the study period was a period of continued positive economic growth in Australia, with a corresponding period of sustained growth in the price of residential properties, and an increase in household debt to record levels (with a large portion of this debt being home

mortgages)³¹. These macroeconomic conditions, the current state of housing, and the levels of household debt reflect a variety of factors, including the strong demand for housing (especially in NSW and Victoria), no growth in average real incomes in Australia since 2008 (Lowe 2016) and continued growth in income inequality, with half of total income growth since 1975 captured by the top 10 per cent of earners (OECD 2014).

These economic settings and the record or near record house prices in Australia greatly exacerbate the need for social housing. These conditions also make the residential housing environment potentially riskier for new investment than in prior years. Indeed, the returns achieved on housing investment over the last decade may not be achievable in the next decade, and this would limit the capacity of social enterprises and others to proceed with housing projects that will generate value for money. In this riskier environment, housing portfolios may need to be constructed over a long horizon, with the investment costs of the houses (developed or purchased) averaged over the period. Alternatively, entities could develop structures and financial models and then patiently wait for the housing markets in specific locations to cool or fall significantly.

³¹ The level of average total household debt to disposable income in Australia increased from 64 per cent in 1988 to 185 per cent in 2015, and is now at record levels. The lowest income households have debt outstanding more than 10 times their disposable income and debt repayments that account for more than 60 per cent of their disposable income (AMP 2015; Lowe 2016):

5 Financial modelling of financial returns in the context of SII mutual funds and private equity investment

- The flexible nature of mutual funds and private equity funds means that they could be specifically tailored for social impact investment, including accommodation and services for those most in need.
 - Cash generated from the issue of units in a mutual fund could be used to acquire or build special purpose accommodation for the homeless and the vulnerable. Mutual fund trustees would be appointed to oversee the fund, with responsibility for organising community housing or organising service providers to manage the properties. Similarly, contributions from private equity firm partners could be used to acquire or build special purpose accommodation for the homeless and the vulnerable with the managing partner responsible for the acquisition and oversight of the property portfolio.
 - Tenancy support and social support for vulnerable households once housed could be financed by government or through other means such as social impact bonds.
 - Private equity firms could focus on the creation of portfolios of particular properties, or classes of properties, due to their small size.
 - The financial modelling reported in this section refers to a residential property portfolio located in a capital city, but in areas that fall in the low taxable income locations. This analysis shows that a superannuation product offered by a mutual fund (private equity firm) contemplating a long-term investment would have, on average, generated positive returns on residential housing for beneficiaries of 6.4 (5.9%) per cent per annum, with positive risk-adjusted return (Sharpe ratio) over a fairly wide range of management fees and rent discounting.
-

To work well, financial structures or models that are intended to encourage investment into housing for vulnerable communities in Australia need to be well designed; that is, they need to be legal, efficient, and appropriate. The need for accommodation for the homeless and vulnerable is not homogeneously distributed across Australia and the housing market conditions vary. And, as the case studies outlined in Chapter 3 highlight, a combination of financial models is often required to suit specific circumstances.

Here we discuss the types of scenarios where the four models outlined in Chapter 2 might be applied. We then discuss the SII mutual fund model and the private equity model in further detail using residential property data from the last decade. It is shown that a mutual fund offering a superannuation product or a private equity firm contemplating a long-term investment in affordable housing could generate positive returns to beneficiaries, regardless of the level of rental yield earned on the properties given a fairly wide range of transaction cost and dividend discounting parameters.

Financial instruments similar to the models discussed below are created regularly. While some flourish like commodity futures, options written on shares and both interest rate and FX swaps others fail. The popularity of real estate investment trusts (REITs) and residential real estate

investment trusts (RREITs) has also waxed and waned over time. It is important to note that we are not in a position to predict whether the models recommended here will attract sufficient funds to be viable. We are encouraged by the fact that while social impact instruments are not as well known in Australian financial markets, there is evidence of these instruments in international markets. The main point of the discussion provided below is that we believe the alternatives proposed below have a reasonable chance of working. We encourage market participants to explore these alternatives.

5.1 The issues

It is unlikely there is a best financial model among the four financing model alternatives discussed in Chapter 2, as the provision of accommodation for the homeless and vulnerable will vary with location and population. For example, in some capital cities, there is a need to finance large-scale projects to address the large numbers of individuals requiring specialised accommodation. These projects might be financed by impact investment mutual funds (either listed or unlisted) or with social impact loans. Securities issued by these entities would be attractive to large institutional investors that are likely to prefer indirect investment in real estate. Direct investment in real estate imposes considerable management, liquidity and transaction costs, and there are also issues with reliance on appraisal-based valuations that are common with real estate investment (Feldman 2003).

The provision of more specialised accommodation might be financed using private equity investment. These small, agile vehicles would facilitate the construction of property portfolios suitable to accommodate the homeless or vulnerable. The portfolio could be constructed over a five-year period and the cash flow characteristics of the portfolio determined in the next five years. At the end of the private investment project life, the residential property portfolio could be sold to a social impact mutual fund or, alternatively, could be refinanced using social impact loans with the property cash flows meeting the loan cash flow requirements. Social impact bonds could be used to finance smaller focused projects where the government has very specific accommodation goals that it requires to be met. The requirement for specific performance periods with specific hurdles suggest that social impact bonds should be used in specific situations, where NGOs or other service providers are able to provide accommodation more efficiently than the government can provide it.

Critical factors for the success of financial models designed to address homelessness are clarity of purpose, a long-term horizon, and ongoing professional and financial expertise and management. As the government has noted, social impact investment projects should 'provide value for money; have a robust approach to outcomes-based measurement; demonstrate fair sharing of risk and return; and focus on a deliverable and relevant social outcome'. To achieve these objectives, the financial and social goals of a project need to be clear, measured and verifiable, and the financial model adopted should operate with well-defined social, commercial and financial parameters that are applied consistently and efficiently.

It is also important to consider the impact of information asymmetry and moral hazard with rental property investments. Rental properties are generally bundled together into a portfolio that is held in trust for unit holders, either in the form of an unlisted property trust or as a listed property trust. It is often difficult for the acquirer of the portfolio, or for investors that acquire units in a trust, to assess the true quality of these rental properties. Thus, there is an opportunity for unscrupulous promoters to misrepresent the quality of the rental properties that make up the rental property portfolio that is offered to impact investors. While this is a risk faced by all investors and is well understood in the investment community, it should be acknowledged here (Akerlof 1970). Moral hazard also arises with the management of the properties once the portfolio is acquired. This is particularly true for social impact investors as the individuals who rent their properties will have very specific needs and are likely to require continuing support.

The value of the properties could quickly dissipate if either the individuals or the properties are not properly managed.

As most entities that seek to raise capital on a recurring basis will know, when investors consider available investment opportunities involving equity, a key factor is trust and confidence in the management of the entity. Does it do what it says it is going to do and does it have a track record of consistently delivering outcomes in accordance with its communicated strategy, plans and targets. Entities that build a reputation of integrity, transparency and reliability with their investors and other stakeholders (e.g. employees, tenants) over time can lower the perceived commercial risks, and in doing so, can often raise further capital at lower rates. To deliver social impact projects that provide long-term housing on a value-for-money basis is highly challenging, but also rewarding, because it requires effective collaborations between people with astute commercial skills, others with comprehensive experience of property and housing markets, those who know and understand the economic and social needs of vulnerable households, and individuals who have the necessary skills, expertise and experience to skilfully and diligently manage the social and financial aspects of the project over its life.

5.2 Social impact investment: the case of mutual funds and private equity

Consumer demand for social impact investment products is strong and growing, and specialist portfolios and products are emerging. It would be possible to construct a new class of social impact fund, including a sub-class that provides housing for vulnerable persons, to satisfy the increasing demand. These funds could include commercial and residential developments, and they could encompass a mix of private and public funding, following the patterns established in the UK and US. Over the last 20 years, the Australian markets have evolved to include unlisted and listed property and infrastructure funds with a diverse range of specialist segments and classes, including assets focused on commercial property, aged care, healthcare, and leisure. Social impact funds should be developed that draw on and adapt these existing structures.

Mutual property funds enable flexible management of assets within a diversified portfolio and can be used to satisfy varying objectives. These funds can be used to hold assets directly or indirectly; the mutual funds can be listed or unlisted; they can be targeted at wholesale or retail investors; the assets can be diversified or focused in nature; they can be used to generate returns either primarily in the form of recurring yields, or as capital gains or as a mixture of both; and they can include high or low risk assets within balanced portfolios. The flexible nature of these funds means that they could be specifically tailored for social impact investment, including accommodation and services for those most in need.

A social impact investment mutual fund could be listed on a securities exchange to enable public trading of the units in these funds in a similar way to shares, with funding sought from the public more generally. One of the benefits of a listed vehicle is liquidity (the ability for investors to readily trade the units in the trust). However, a major disadvantage of a listed vehicle would be the regulatory hurdles, as any transaction that involves raising funds from the public must comply with the rules in Ch6D of the Corporations Act 2001 (Cth) unless within an exempted category. These rules require the preparation of a prospectus, including detailed information on the fund, the capital raising and any matters that are necessary to enable investors (or their advisers) to make a well-informed investment decision (Commonwealth of Australia 2001). Moreover, the entity would need to continue to comply with various regulations, including ongoing disclosure obligations (North 2013).

Alternatively, the mutual fund could remain unlisted and could be targeted at wholesale institutional investors and high net worth individuals (that fall within the categories that are

exempt from the public disclosure requirements in Ch6D of the Corporations Act 2001 (Cth)) such as professional investors or sophisticated investors.

The cash generated from the issue of units could be used to acquire or build special purpose accommodation for the homeless and the vulnerable. A trustee would be appointed to oversee the fund, and he or she could arrange for community housing or similar service providers to manage the properties on a day-to-day basis. Linked tenancy support and social support partnerships financed by government or through other means such as social impact bonds for example, could be used to support these individuals.

Rental income would be paid by those living in the accommodation, but it could be set at rates below market to ensure the accommodation is affordable. This gap in rental income may be subsidised by the government (in a variety of forms) or philanthropic payments. For example, recent tax agreements suggest that there is the potential for the ATO to allow social impact investors to claim a tax deduction for the amount of the rent reduction. Alternatively, social impact investors may accept the reduced rentals as a trade-off for the social gains achieved.

Table 12 below provides some insight into the possible after-tax and transaction returns to a mutual fund superannuation product invested in residential property for the homeless and vulnerable during the study period. The superannuation investor could be an institution or a self-managed superannuation fund (SMSF). This example explores the impact of variation in transaction costs and rental yield earned on a residential property portfolio located in a capital city, but in areas that fall in the low taxable income per capita class postcode areas in that city. For example, this might include certain areas in the western suburbs of Sydney or in the southern suburbs of Brisbane. Houses and units are reported separately.

The returns viewed by column are tiered using a spectrum of rental yields (from 0–100%) and the returns shown in the rows reflect a range of transaction costs (0–60%). A tax rate of 15 per cent is applied to all scenarios.

As might be expected, increasing rental yields results in increased return, volatility and Sharpe ratio for the superannuation product, whether it invests in houses or units. It is important to note the better performance of units relative to houses in this scenario, which is in contrast to some of the previous scenarios.

Increases in management costs from 0 to 60 per cent result in decreased return and decreased Sharpe ratio for the product, whether there is investment in houses or units. There is virtually no change in the volatility of returns as transaction costs are increased, all else being held constant.

The main point to note concerning Table 12 is that a superannuation product offered by a mutual fund contemplating a long-term investment (with horizon sufficient for selling and capital gains costs to be essentially immaterial) would have generated positive returns to beneficiaries, regardless of the level of rental yield earned on the properties, with positive Sharpe ratio. If a superannuation fund is able to make social impact investments; then as long as the property investment is sufficiently long-term in nature, it would earn positive returns on average over a fairly wide range of management fees and rent discounting given the property data collected over the last decade. For example, if transaction costs were set at 40 per cent and social impact superannuation investors were prepared to accept rentals that are set at 50 per cent of the market levels, then this long-term investment in residential housing (units) would have generated a return of 6.4 per cent (7.7%) with volatility of 17.5 per cent (36.8%) with Sharpe ratio of 0.226 (0.143) given data drawn from the period, 2005 to 2014. Of course, the lower the discount on rental yield and the more efficient and the lower the cost of running the property, the greater the returns to the superannuation fund's beneficiaries.

Table 13 below repeats the analysis of property returns in capital city low taxable income postcode areas for private equity firms under the assumption that investment purchase and sale

costs are essentially immaterial over the 10 year life of the firm. Individual personal tax rates apply to partners in private equity firms. As a result, the maximum individual income tax rate is applied in this analysis (47%).

Table 12: Long-term investment horizon for a super fund investing in capital city housing located in lowest per capita income postcode areas (vary transaction costs and rental payment)

		Houses					Units				
Trx	% rent	0%	25%	50%	75%	100%	0%	25%	50%	75%	100%
0%	mean	0.052	0.062	0.071	0.081	0.090	0.064	0.075	0.085	0.096	0.106
	sd	0.175	0.175	0.176	0.176	0.177	0.368	0.368	0.369	0.369	0.370
	shp	0.162	0.216	0.269	0.322	0.375	0.110	0.138	0.166	0.195	0.223
	N	760	760	760	760	760	595	595	595	595	595
20%	mean	0.052	0.060	0.068	0.075	0.083	0.064	0.073	0.081	0.089	0.098
	sd	0.175	0.175	0.176	0.176	0.176	0.368	0.368	0.369	0.369	0.369
	shp	0.162	0.205	0.248	0.290	0.332	0.110	0.132	0.155	0.177	0.200
	N	760	760	760	760	760	595	595	595	595	595
40%	mean	0.052	0.058	0.064	0.069	0.075	0.064	0.071	0.077	0.083	0.089
	sd	0.175	0.175	0.175	0.176	0.176	0.368	0.368	0.368	0.369	0.369
	shp	0.162	0.194	0.226	0.258	0.289	0.110	0.126	0.143	0.160	0.177
	N	760	760	760	760	760	595	595	595	595	595
60%	mean	0.052	0.056	0.060	0.063	0.067	0.064	0.068	0.073	0.077	0.081
	sd	0.175	0.175	0.175	0.175	0.175	0.368	0.368	0.368	0.368	0.369
	shp	0.162	0.183	0.204	0.225	0.246	0.110	0.121	0.132	0.143	0.154
	N	760	760	760	760	760	595	595	595	595	595

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

The impact on returns, volatility and Sharpe ratio is not too much lower than those reported for superannuation funds as reported in Table 12 above. With 100 per cent dividend and 40 per cent transaction costs, the mean return to a private equity investor is 6.6 per cent per annum with standard deviation of 17.5 per cent and Sharpe ratio of 0.120 compared with the results for a superannuation fund, where the mean return is 7.5 per cent per annum, standard deviation of 17.6 per cent and Sharpe ratio of 0.289. Thus, given data drawn from the period

2005 to 2014, a private equity firm contemplating a long-term investment in residential property (with horizon sufficient for selling and capital gains costs to be essentially immaterial) would have generated positive returns for the partners in the firm and a positive Sharpe ratio. Indeed, if transaction costs were set at 40 per cent, and social impact private equity investors were prepared to accept rentals that are set at 50 per cent of the market levels, then this long-term investment in residential housing (units) would have generated a return of 5.9 per cent (7.2%) with volatility of 17.5 per cent (36.8%) with Sharpe ratio of 0.081 (0.073) given data drawn from the period, 2005 to 2014.

Table 13: Long-term investment horizon for an individual investing in capital city housing located in lowest per capita income postcode areas (vary transaction costs and rental payment)

Trx cst%	% rent	Houses					Units				
		0%	25%	50%	75%	100%	0%	25%	50%	75%	100%
0%	mean	0.052	0.058	0.064	0.070	0.076	0.064	0.071	0.077	0.084	0.091
	sd	0.175	0.175	0.175	0.176	0.176	0.368	0.368	0.368	0.369	0.369
	shp	0.040	0.074	0.108	0.141	0.175	0.052	0.069	0.087	0.105	0.123
	N	760	760	760	760	760	595	595	595	595	595
20%	mean	0.052	0.057	0.062	0.067	0.071	0.064	0.070	0.075	0.080	0.085
	sd	0.175	0.175	0.175	0.175	0.176	0.368	0.368	0.368	0.369	0.369
	shp	0.040	0.067	0.094	0.121	0.148	0.052	0.066	0.080	0.094	0.108
	N	760	760	760	760	760	595	595	595	595	595
40%	mean	0.052	0.056	0.059	0.063	0.066	0.064	0.068	0.072	0.076	0.080
	sd	0.175	0.175	0.175	0.175	0.175	0.368	0.368	0.368	0.368	0.369
	shp	0.040	0.060	0.081	0.100	0.120	0.052	0.062	0.073	0.083	0.094
	N	760	760	760	760	760	595	595	595	595	595
60%	mean	0.052	0.055	0.057	0.059	0.062	0.064	0.067	0.069	0.072	0.075
	sd	0.175	0.175	0.175	0.175	0.175	0.368	0.368	0.368	0.368	0.368
	shp	0.040	0.054	0.067	0.080	0.093	0.052	0.059	0.066	0.073	0.079
	N	760	760	760	760	760	595	595	595	595	595

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

5.3 The policy development implications

The policy development implications of this research are multifaceted. From an investment perspective, the capacity of superannuation funds (whether institutional or otherwise) to invest in projects that intentionally trade-off financial returns to achieve social objectives is open to challenge on several fronts. Superannuation funds in Australia are subject to a range of legislation. A trustee's fiduciary duties include a duty of loyalty that requires him or her to administer the trust solely in the interests of the beneficiaries. In addition, trustee directors must exercise their duties and powers in the best interests of beneficiaries³². Trustees of superannuation monies could reasonably interpret these obligations as requiring them to maximise the financial returns provided to beneficiaries. Similarly, investors that are saving within a superannuation fund must satisfy a sole purpose test, which requires them to operate the fund with the primary objective to provide retirement benefits³³. Once again, this test could be interpreted as requiring investors to maximise their financial returns or their risk-adjusted returns. It is therefore important for policy-makers to clarify the role and inclusion of social impact investments within a superannuation portfolio, particularly when an investment involves a balancing of financial and social outcomes. There are also significant challenges for social entities when considering the most appropriate legal structure to operate a social impact project. Corporate structures are often used to create a separate legal entity and to limit the investors' liability. However, company directors in Australia are subject to a duty that requires them to act in the best interests of the corporation³⁴, and this generally requires them to make decisions on a commercial basis. While it is possible for directors to consider the social impacts of their activities, this can only generally occur when these matters are incidental or they benefit the corporation over the long term. Debates concerning the role, purpose and accountabilities of companies in society are long standing. Various reforms and proposals have been tabled and/or considered to assist corporations to consider social impact more fully, but most of these developments are nascent. For example, Australian policy-makers are considering the introduction of benefit corporations, a new form of for-profit-for-purpose structure that has been adopted in the US.

There are few residential property mutual funds operating in Australia at present and so it is likely that social impact securities written on a residential property portfolio will provide valuable diversification opportunities not available to individual investors at present. Thus, the reduced rental yield offered by SII securities may be traded off against the diversification gains created by investing in these new securities. It is important that the concern about maximising investor returns is not achieved to the exclusion of all other objectives as this tends to ignore the equally important requirement for proper diversification, which is also enshrined in portfolio theory and recognised by the courts.

Thus, while it is important to be aware of the legal responsibilities of trustees and directors, it is also important to note the prevalence of beneficiary selection of risk and return options offered across a range of superannuation products as well as the reticence of the courts and regulators to intervene in investment and business decisions more generally. This is a difficult area and there is certainly need for further regulatory and legislative guidance.

Information asymmetry is also an issue for rental property investors, and social impact investors need to be cognisant of the moral hazards that flow from this. Unscrupulous promoters may mislead impact investors as to the quality of the property portfolios they are investing in. It is

³² *Superannuation Industry (Supervision) Act 1993* (Cth) s 52.

³³ *Ibid* 62.

³⁴ *Corporations Act 2001* (Cth) s 181.

also possible that managers may not act in the best interests of the property owners in the day-to-day management of the properties.

In summary, there are superannuation funds that provide beneficiaries with the option to choose the investment weightings that attach to the asset classes that the mutual fund invests in. It is not clear in this case that the trustees should attempt to maximise return without directing some attention to diversification. This approach suggests that the needs of beneficiaries will also be taken into account in the final portfolio design step. Nevertheless, there is little doubt that the legal obligations of trustees and directors will attract the attention of regulators and legislators in the future, particularly with respect to social impact investments.

Finally, private equity firm investors and mutual funds other than superannuation funds are not affected by these considerations. Traditional mutual fund returns are taxed in the hands of the investor and so the maximum individual personal tax rate is best applied to this class of impact investment. Further, private equity firms generally take the form of a partnership and so there is greater flexibility available to these entities in terms of investment policy. Again, income is taxed in the hands of the beneficiaries and so the maximum personal tax rate is applied to this class.

SIBs and social impact loans are not subject to considerations set out in this section.

6 Policy development options

6.1 What SII financial instruments can be used to provide housing for vulnerable households?

This research found a range of finance instruments that could be further explored because of the benefit of an asset base in housing. These include financial instruments that are already being considered and implemented in Australia:

- The bond aggregator model for funding for affordable housing. This includes social impact loans for housing at subsidised rates. Government payments to individuals could be passed onto the lender to meet interest and principal costs.
- Social Impact Bonds (SIBs), which are based on a return payment for savings (typically by government) if specified social outcomes (e.g. tenancy sustainability targets, or provision of accommodation at specified cost) are achieved. SIBs can be used to fund social enterprises. Typically SIBs work with smaller funding amounts than other types of investment models.

However, this project found three additional options that should also be considered:

- Private capital impact investment firms, which invest in affordable housing projects and work closely with project managers. The holding period would be approximately ten years, with assets then on-sold to other market participants. Projects could be relatively small (\$20 million to \$30 million).
- Impact Investment Mutual funds (listed or unlisted) have the ability to mobilise a large amount of capital and the flexibility to be tailored for SII. A trustee could oversee the fund and a Community Housing Provider (CHP) provide tenancy management. This could be supplemented by government-funded tenancy and/or social supports. The mutual fund could be listed on a stock exchange or set up as an unlisted retail or wholesale fund. Fund units could be sold to individual investors or institutions, including superannuation funds.
- Social Impact Loans form the third alternative. In this case, government payments are made to individuals (or the lender) to cover part of the interest and/or principal payments due on a loan covering the purchase of property. These loans may also accept delayed repayment.

Our report highlights the untapped and growing demand from investors for SII projects, suggesting an asset class providing affordable housing would be considered and assessed by Australian wholesale and retail investors differently from direct residential property investment, even if the returns on this investment class correlate to some extent with the buy-to-let market. This differentiated perspective is evidenced by the development of managed investment trusts in Australia that develop and manage aged care facilities and that encompass risk and operating features from both the residential and commercial property markets³⁵. These mixed attributes would also apply to managed investment trusts holding affordable housing and these trusts would further benefit from a diversified portfolio of affordable housing properties or projects across Australia, reducing the overall risks and volatility. The additional social benefits produced from the operation of these trusts could provide a highly attractive blended investment

³⁵ For a summary outline of property managed investment trusts, see Property Council of Australia, *Corporate Tax Avoidance Submission to Inquiry into Corporate Tax Avoidance and Minimisation* (30 January 2015). The Property Council indicates that it represents \$670 billion of property investment in Australia, with members operating across all property asset classes including office, shopping centres, residential development, industrial, leisure, aged care, retirement villages and infrastructure.

opportunity, especially if the government is willing to provide capital gain discounts and/or tax concessions that close the rental income gaps with traditional buy-to-let properties.

6.2 What are the barriers to implementing SII?

There are numerous barriers that need to be overcome in developing a viable SII market for housing vulnerable households. A viable SII market would require assistance by government to help close or minimise return gaps, especially because of (i) the low incomes of very vulnerable tenants; (ii) the finance gaps faced by CHPs; and (iii) the limited number of impact first investors.

CHPs face high operational and asset management costs as well as often facing costs to support the tenancies of vulnerable people. It is challenging for CHPs to generate a financial return because they are unlikely to readily sell dwellings for this reason because they aim to provide tenants with security of tenure. Further, CHPs face reduced rental income and capital gains (and thus returns). This is particularly true if a property is to be made available at a social rent rate (30% of income), and the only income source is a social security payment, which is the case for many vulnerable households. Finally, CHPs are limited in their ability to scale while they are 'leasing' rather than owning government properties because they cannot leverage these properties against borrowed funds to increase stock at a reasonable interest rate. We do not explore this possibility in this study although this is an important area for future research.

Recent government proposals to support development of managed investment trusts targeted at 'build to rent' affordable housing projects would provide a first step in achieving market liquidity, as would establishment of a bond aggregator. Although rental yield does not represent a major component of total return, impact investors investing in affordable housing assets would need to accept lower than market returns. However, the discount on rent may vary between a small amount (e.g. 10%), to providing properties at a social rent based on welfare payments. Development of a range of affordable housing based securities, based on rental yield discounts along that continuum, and a liquid market for these securities, would provide impact investors with the opportunity to create a portfolio of affordable housing securities which meets individual requirements for a mix between financial and social return.

6.3 SII in the context of housing vulnerable populations: the role of SIBs

The research findings suggest that the finance options explored, with the exception of SIBs, are most suited to large investments in housing assets, which make them more suitable for scalable affordable housing initiatives, rather than as scalable options to support people vulnerable to homelessness to enter housing. Questions need to be raised as to the extent that homelessness interventions and affordable housing for vulnerable households with welfare as their only income source, might achieve viable financial returns, and the investment environment required to support these investments.

The SIB structure appears to be most suitable to support vulnerable populations to enter and maintain housing. While there is a growing body of evidence that homelessness support is associated with a reduction in the use of non-homelessness services; including health (e.g. days in hospital and mental health care) and justice services. As SIB payments are typically triggered only if the value of the economic impact of the program is greater than the cost of delivering the program, this suggests that only a limited number of homelessness support programs would be suitable for financing using an SIB. It remains to be demonstrated whether the Aspire SIB achieves its financial returns.

In the case of the Aspire SIB, some key findings can be gleaned despite the early stage of this SII:

- It relies on measurable outcomes that have fixed dollar values against the change in service use: improvement in health (hospital bed days), justice (convictions) and short-term or emergency accommodation homelessness service use relative to a fixed historical basis.
- The returns rely on the availability of high quality linked data across different government portfolios to measure outcomes and define the counterfactual.
- Government is underwriting the risk to some extent (2% p.a. fixed coupon over 4.5 years).
- While the Aspire SIB was oversubscribed within a four-week period, with approximately 60 investors taking part, showing an appetite in the market for Impact Investing opportunities, it is important to recognise that this was in part attributed to being South Australia's first SIB and a gap of three or four years since the last Australian SIB capital raising exercise.
- It is too early to determine if this SIB will generate the returns expected.
- Lack of rigorous and publically available government service use and cost data required to define the economic model that informs outcome payments under the SIB arrangement is seen as major challenge to SIB development.
- The intensity of the procurement process and high fixed transaction costs limits applicability to larger scale programs.

6.4 SII and social enterprises

The Big Issue, STREAT and Launch Housing's HomeGround Real Estate are three of the most well-known and established cases of SII in social enterprises. On the whole, however, there is limited use of SII in the Australian social enterprise sector.

The limited use of SII is not simply a case of building understanding and capability among social enterprises and not-for-profits. The findings from the HomeGround Real Estate and STREAT case studies provide insight into particular challenges in using SII as a funding source when housing and support services are required.

- *Social enterprises and not-for-profits (NFPs) usually exist as a response to market failure*, which means that they exist when the market is not able to provide people with what they need and, critically important in the SII space, it also means that significant profit generation is highly unlikely because market failure responses can result in low margin solutions.
- The majority of impact investors expect a market return, rather than a lower than market return (Impact Investing Australia's 2016 survey of current and potential social impact investors found that 58% expected competitive market rates of returns). This is challenging in Australia where we have a smaller pool of investors than in other countries where SII is more developed.

The two social enterprise case studies, STREAT and HomeGround Real Estate demonstrate that SII can work when:

- There is alignment of purpose and an understanding of the social impact of the investment.
- There is an acceptance of a lower than market financial return.
- There is an acceptance of some level of risk presented by the enterprise.
- There was confidence that the returns generated from the SII would only be used for purposes that aligned with the values and purpose of the organisation.
- Transaction costs were accounted for and covered.

- There was an appetite for low liquidity—that is there was limited ability to exit.
- Organisations used a mix of funding types (SII plus grants, philanthropy and donations): the right capital needs to be available in the right format at the right time.
- Taxation (or other direct government subsidies) assist to support the financial viability of the enterprises.
- There are income sources that generate profit (STREAT has the Social Roasting Company; 78% of HomeGround Real Estate’s 267 properties do not have subsidised rent).

6.5 Specific policy options

The findings of this report reinforce the need for government to revisit the National Rental Affordability Scheme (NRAS). Research suggests that one of the limitations of institutional investors in NRAS was a lack of trust in the government’s ongoing commitment. This has implications for not just a future form of NRAS, but also implies a need for stable longer term government commitment in other areas that will help boost trust and, in turn, investment in SII and housing projects.

NRAS also demonstrated that private-sector investors seek investments with exposure to both the potential for capital growth and rental returns (Rowley, James et al. 2016). This suggests that at least for private investors, there is some need for market structures that provide for liquidity, allowing exposure to capital gains as well as rental income.

There is also room for government policy and regulatory changes to assist to increase opportunity for superannuation funds to invest in SII initiatives in affordable housing.

It is important to acknowledge that this study was undertaken at a time of more than two decades worth of Gross Domestic Product (GDP) growth and sustained growth in property prices in Australia and rising rents. However, it was also a time of limited wage growth (no real growth for people on social security payments) and increases in social inequality. This has created ideal market conditions for investors and increased the housing stress of many and the demand for more affordable housing. This environment also increases future risk in investing in the housing market because the residential property market may not generate the same levels of capital growth in the next decade. It is clear that housing portfolios could be evaluated over a longer time horizon, but these data are not available at present. The residential property returns analysed in this study provide valuable insight into the residential property market in Australia over the last decade. The postcode level data used in this study have not been available for analysis until quite recently and the use of this data marks a key contribution of this study. There are two further general observations about the return data. First, capital gains are an important component of residential property’s total return, consistent with a wide range of financial and real assets. Second in contrast to capital gains, rental yields are relatively stable over the study period. Similar levels of stability are also observed for coupons attached to bonds, dividends paid on shares, and rentals yields earned on commercial property.

The finance vehicles are only useful if they can be matched to the needs of either housing or housing service providers and/or people in need of housing support. Findings from the three case studies illustrate a number of issues that require policy attention if the potential of SII is to be realised. Key policy implications include the following:

- There is a need for capital requirements to match legal form—STREAT was able to leverage the benefits of their charitable status and issue equity in the Social Roasting Company assets that were important to doubling their scale early in their history. NFPs are unable to take on equity capital because of their company structure. Like STREAT, if they wished to do this, it would require a subsidiary for-profit company.

- The importance of blended and appropriate capital with a focus on financial viability and optimal social impact must be a priority.
- The needs of the social enterprise must be married with the needs of impact investors, and this union is time consuming and expensive to orchestrate. There are high transaction costs that organisations will need assistance with either via a pro bono arrangement or direct funding.
- There is a need to support increased access to a breadth of financial/funding categories—grant, sub-market ‘soft loans’ and SII—if social enterprises addressing entrenched social problems such as homelessness are to thrive.
- Social enterprise models struggle to support people with higher needs. They usually cannot afford even the discounted rents of affordable housing properties; and the costs of tenancy support are high. Separate block grant funding may be required to sustain this support for the tenant and to decrease the risk for landlords.
- Establishment, infrastructure and operational costs require seed or core funding separate to SII.
- Ongoing capacity building is critical across the SII market.
- Growth of market size is required to assist it to meet its potential.
- The reduction of fixed transaction costs (or the provision of funding or pro bono support for transactions, such as through NFP intermediaries) is critically important to SII’s market development. If not addressed, smaller to medium-sized NFPs will not be able to compete in the market for SII funding.

Given SII relies on understanding the social return on investment, it is critical that high quality outcome data collection, reporting and evaluation, forms a core part of developing the SII landscape in Australia. Government has an important role to play in ensuring that required outcome data are collected, data management methods are robust and efficient, data linkage protocols are established and the process becomes less costly, and in providing infrastructure to support interrogation and analysis of this data. Investing in analysis of linked government administrative data is particularly important to develop evidence around the longevity of positive outcomes for program participants, and thus the period over which economic savings are expected to be generated.

In the case of SIBs, Commonwealth Government involvement in the SIB market is important with the potential to increase the size of the SIB market through Commonwealth Government issue of SIBs, further development of market infrastructure and through improved data availability.

There is a need to further grow the investor base for SIBs and social impact investing generally, and grow the amount of capital willing to accept a mixture of financial and social return.

In regard to specific groups of vulnerable people, further consideration and future research is needed about whether SII is appropriate and sufficient return on investments would flow. For example, in aged care, while an SIB may be appropriate, aged care is currently funded by the Commonwealth Government while most cost savings are likely to come from the health portfolio. Further monitoring is also required for people with disabilities as the National Disability Insurance Scheme (NDIS) is being implemented.

6.6 Final remarks

Australia faces numerous affordable housing and housing support policy challenges, including for very vulnerable population groups. SII is a new, but innovative and growing mechanism for funding solutions to complex problems. Findings from this research aim to inform and progress housing policy to move Australia forward—across the homelessness to housing affordability continuum.

This project progresses the understanding of different finance vehicles for SII and explores policy issues that need to be considered and addressed if these were to be adopted and scaled to improve affordable housing and housing support for vulnerable groups.

SII is being considered as a (relatively) new solution to a previously intractable social problem—affordable housing and housing for people who are or were homeless. SII presents an important opportunity in Australia, but we need to better understand the finance instruments and models that might be feasible and which groups can most benefit from SII in the housing space.

References

- Adams, S., Flatau, P., Zaretsky, K., McWilliam, D. and Smith, J. (2015) 'Measuring the difference we make: the state-of-play of outcomes measurement in the community sector in Western Australia', in *Bankwest Foundation Social Impact Series*, issue no. 3, <http://www.csi.edu.au/research/project/bankwest-social-impact-series-3-measuring-difference-we-make/>.
- Addis, R., McCutchan, S. and Munro, P. (2015) *Blueprint to market*, a report for Impact Investing Australia.
- Akerlof, G.A. (1970) 'The market for "lemons": quality uncertainty and the market mechanism', *Quarterly Journal of Economics*, vol. 84, no. 3: 488–500.
- AMP (2015) NATSEM38, *Buy Now Pay Later: Household Debt in Australia* (December 2015).
- Andreoni, J. (1989) 'Giving with impure altruism: applications to charity and Ricardian equivalence', *Journal of Political Economy*, vol. 97, no. 6: 1447–1458.
- Arieta, J., Cervantes, F., Coleman, K., Cruz, E., Douglas, L., Earnest, G., Guerrero, D., James, C., Le, A., Rodriguez, S., Sizar, S., Tapavalu, T. and Zegeye, M. (2013) *Partnering for social change. Funding "Pay for Success" initiatives and expanding social impact*, A report written by the 2013 Fellows of the Public Policy and International Affairs Program at Princeton University's Woodrow Wilson School, <https://www.princeton.edu/sites/default/files/content/Partnering%20for%20Social%20Change%20Final%20Report.pdf>.
- Australian Bureau of Statistics (ABS) (n.d.) *Consumer Price Index*, Australia, cat. no. 6401.0.
- Australian Centre for Philanthropy and Nonprofit Studies (2010) *Finding Australia's social enterprise sector: Final Report 2010*, QUT and Social Traders, http://www.socialtraders.com.au/uploads/rsfil/000263_bcda.pdf.
- Australian Department of Human Services (n.d.) Specialist Disability Accommodation [Online], accessed 15 June 2017, <https://www.ndis.gov.au/specialist-disability-accommodation.html>.
- Australian Government (2014) *Reform of the Federation White Paper, Roles and responsibilities in housing and homelessness Issue Paper 2, December 2014*, a report of the Department of Prime Minister and Cabinet, Canberra.
- Australian Government (2017) *Social impact investing discussion paper*, www.treasury.gov.au.
- Australian Government (n.d.) *My aged care* [ONLINE], accessed 15 June 2017, <https://www.myagedcare.gov.au/help-home/commonwealth-home-support-programme/help-older-people-homeless-or-at-risk>.
- Australian Institute of Health and Welfare (AIHW) (2014) *Housing outcomes for groups vulnerable to homelessness*, cat. no. HOU 274, Canberra.
- Australian Institute of Health and Welfare (AIHW) (2017) *Specialist homelessness services 2014–2015* [Online], accessed 15 June 2017, <http://www.aihw.gov.au/homelessness/specialist-homelessness-services-2014-15/>.
- Barraket, J., Collyer, N., O'Connor, M. and Anderson, H. (2010) *Finding Australia's social enterprise sector: Final Report*, Australian Centre for Philanthropy and Nonprofit Studies,

- June, FASES, <http://cdn.socialtraders.com.au/app/uploads/2016/07/FASES-2010-full-report.pdf>.
- Bauer, R., Koedijk, K. and Otten, R. (2005) 'International evidence on ethical mutual fund performance and investment style', *Journal of Banking & Finance*, vol. 29, no. 7: 1751–67, doi: <http://dx.doi.org/10.1016/j.jbankfin.2004.06.035>.
- Bekhet, A., Zauszniewski, J. and Nakhla, W. (2009) 'Reasons for relocation to retirement communities: a qualitative study', *Western Journal of Nursing Research*, vol. 31, no. 4: 462–79, doi: 10.1177/0193945909332009.
- Big Society Capital (2016) Shared lives incubator, accessed 16 June 2017, <https://www.bigsocietycapital.com/what-we-do/investor/investments/shared-lives-incubator>.
- Birdsall-Jones, C., Corunna, V. and Turner, N. (2010) *Indigenous homelessness*, AHURI Final Report No. 143, Australian Housing and Urban Research Institute Limited, Melbourne, <http://www.ahuri.edu.au/research/final-reports/143>.
- Black, L. (2016) 'Policy impediments to social investments by Australian businesses', in John Butcher and David Gilchrist (eds.), *The Three Sector Solution: Delivering Public Policy in collaboration with Not-for-profits and Business*, ANU Press.
- Brounen, D., Eichholtz, P. (2003) 'Property, common stock, and property shares', *Journal of Portfolio Management*, vol. 30, no. 5: 129–137.
- Bridge Housing (2017) *Bridge creates Home Ground real estate agency in Sydney* [ONLINE], accessed 30 October 2017, <https://www.bridgehousing.org.au/news.php/176/bridge-creates-home-ground-real-estate-agency-in-sydney>.
- Bugg-Levine, A., Kogut, B. and Kulatilaka, N. (2012) 'New approach to funding social enterprise', *Harvard Business Review*, vol. January-February: 1–7.
- Busch-Geertsema, V. (2013) *Housing First Europe: Final Report*, Housing First Europe, Bremen/Brussels.
- Commonwealth of Australia (1993) *Superannuation Industry (Supervision) Act 1993*.
- Commonwealth of Australia (2001) *Corporations Act 2001*.
- Commonwealth of Australia (2017) *Consultation paper. National Housing Finance and Investment Corporation*.
- Conroy, E., Bower, M., Flatau, P., Zaretsky, K., Eardley, T. and Burns, L. (2014) *The MISHA project from homelessness to sustained housing 2010–2013*, Mission Australia Research report, <https://www.missionaustralia.com.au/documents/research/homelessness-research/279-from-homelessness-to-sustained-housing-2010-2013-misha-research-report-2014>.
- Corporation for Supportive Housing (2004) *Benefits of Supportive Housing: Changes in Residents' Use of Public Services*, Corporation for Supportive Housing, New York.
- Council of Federal Financial Relations (CFFR) (2016) *Innovative financing models to improve the supply of affordable housing*, Report to Heads of Treasuries, Commonwealth Government of Australia, Canberra.

- Crumpler, H. and Grossman, P. J. (2008) 'An experimental test of warm glow giving', *Journal of Public Economics*, vol. 92, no. 5–6: 1011–1021, doi: <http://dx.doi.org/10.1016/j.jpubeco.2007.12.014>.
- Culhane D., Metraux S. and Hadley T. (2002) 'Public service reductions associated with placement of homeless persons with severe mental illness in supportive housing', *Housing Policy Debate*, vol. 13, no. 1: 107–163.
- Dembek, K., Madhavan, D., Michaux, F. and Potter, B. (2016) *Impact Investing Australia 2016 Investor report*, <http://impactinvestingaustralia.com/wp-content/uploads/Impact-Investing-Australia-2016-Investor-Report.pdf>.
- Department of Human Services (2010) *Investment returns from rental housing in Melbourne 1998–2009*, Government of Victoria, Melbourne, www.dhs.vic.gov.au.
- Department of Social Services (DSS) Australian Government (n.d.) *National Rental Affordability Scheme* [Online], accessed 9 June 2017, <https://www.dss.gov.au/our-responsibilities/housing-support/programs-services/national-rental-affordability-scheme/national-rental-affordability-scheme-frequently-asked-questions-1>.
- El Ghoul, S., Guedhami, O., Kwok, C. C. Y. and Mishra, D. R. (2011) 'Does corporate social responsibility affect the cost of capital?', *Journal of Banking & Finance*, vol. 35, no. 9: 2388–2406, doi: <http://dx.doi.org/10.1016/j.jbankfin.2011.02.007>.
- Ernst Young (2016) *Social impact investing*, research Final Report March 2016, a report prepared for Department of Social Services, http://www.communitybusinesspartnership.gov.au/wp-content/uploads/2016/11/social_impact_investing_research_report.pdf.
- Feldman, B.A. (2003) 'Investment policy for securitized and direct real estate', *Journal of Portfolio Management*, vol. 29, no. 5: 112–121.
- Flatau P., Conroy E., Marchant T., Burns L., Spicer B., Di Nicola K., Edwards R., Bauskis A., Athanassios M., Larsen K. (2012) *The Michael Project, 2007–2010, New perspectives and possibilities for homeless men*, Mission Australia, Sydney.
- Flatau P., Zaretsky K., Brady M., Haigh Y., Martin R. (2008) *The cost-effectiveness of homelessness programs: a first assessment*, AHURI Final Report No. 119, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/119>.
- Fuehrlein B., Cowell A., Pollio D., Cupps L., Balfour M., and North C. (2015) 'A prospective study of the associations among housing status and costs of services in a homeless population', *Psychiatric Services*, vol. 66, no. 1: 27–32.
- Golden Lane Housing (2015) *Golden Lane Housing 2014 Social Investment Bond, Impact report year 2, December 2015*, http://www.glh.org.uk/wp-content/uploads/2016/03/GLH_SocialImpactReport_Year2.pdf.
- Goss, A. and Roberts, G. S. (2011) 'The impact of corporate social responsibility on the cost of bank loans', *Journal of Banking & Finance*, vol. 35, no. 7: 1794–1810, doi: <http://dx.doi.org/10.1016/j.jbankfin.2010.12.002>.
- Groton, D. (2013) 'Are Housing First programs effective? A research note', *Journal of Sociology & Social Welfare*, vol. 40: 51–63.

- Gustafsson-Wright, E. and Gardiner, S. (2015) *Policy recommendations for the applications of impact bonds: A summary of lessons learned from the first five years of experience worldwide*, Global Development at Brookings, Brookings Institute, <http://www.brookings.edu/~media/research/files/papers/2015/11/impact-bonds-policy-recommendations-gustafsson-wright-gardiner/sib20policy20brief201web.pdf>.
- Gustafsson-Wright, E., Gardiner, S. and Putcha, V. (2015) *The potential and limitations of impact bonds: Lessons from the first five years of experience worldwide*, Brookings Institute, <https://www.brookings.edu/wp-content/uploads/2015/07/impact-bondsweb.pdf>.
- Heaney, R. and Sriananthakumar, S. (2012) 'Time-varying correlation between stock market returns and real estate returns', *Journal of Empirical Finance*, vol. 19, no. 4: 583–594.
- Hiscock, R., Kearns, A., MacIntyre, S. and Ellaway, A. (2001) 'Ontological security and psychosocial benefits from home qualitative evidence on issues of tenure', *Housing Theory and Society*, vol. 18, no. 1–2: 50–66.
- HomeGround Real Estate (2015) *New directions in private rental: One house and one unit at a time*, <https://www.homegroundrealestate.com.au/new-directions-in-private-rental-one-house-and-one-unit-at-a-time/>.
- HomeGround Real Estate (2016) *HomeGround Real Estate landlord ATO talking points 2016* <https://www.homegroundrealestate.com.au/news/ato-ruling-information/>.
- Hudson-Wilson, S., Fabozzi, F.J., Gordon, J.N., (2003) 'Why real estate?', *Journal of Portfolio Management*, vol. 29, no. 5: 12–25.
- Hwang S., Weaver J., Aubry T., and Hoch J. (2011) 'Hospital costs and length of stay among homeless patients admitted to medical, surgical, and psychiatric services', *Medical Care*, vol. 49, no. 4: 350–54.
- Inc, M. P. (2015) Micah Projects Annual Report 2014/2015, [ONLINE] <http://micahprojects.org.au/assets/docs/Annual-Reports/Micah-Projects-2015-AR-WEB.pdf>.
- Johnson, G., Kuehnle, D., Parkinson, S., Sesa, S. and Tseng, Y.-P. (2014) *Sustaining exits from long-term homelessness: A randomised controlled trial examining the 48 month social outcomes from the Journey to Social Inclusion pilot program*, Sacred Heart Mission, https://www.sacredheartmission.org/sites/default/files/publication-documents/j2si_sustaining_exits_from_longterm_homelessness_2015.pdf.
- Kahneman, D., Knetsch, J. L. and Thaler, R. H. (1991) 'Anomalies: The endowment effect, loss aversion, and status quo bias', *The Journal of Economic Perspectives*, vol. 5, no. 1: 193–206.
- Kernot, C. and McNeill, J. (2011) *Australian Social Enterprises: Stories of Challenge*, The University of New South Wales, NSW, http://www.communityeconomies.org/site/assets/media/JoanneMcNeill/PUBLISHED_Australian-Stories-of-Social-Enterprise_Apr11.pdf.
- Korenok, O., Millner, E. L. and Razzolini, L. (2013) 'Impure altruism in dictators' giving', *Journal of Public Economics*, vol. 97: 1–8, doi: <http://dx.doi.org/10.1016/j.jpubeco.2012.08.006>.
- Kurdian, N., Clarke, R. and Zancanaro, P. (2016) 'Impact investing in real estate', *LegalTalk Alert*, PriceWaterhouseCoopers, <https://www.pwc.com.au/legal/assets/legaltalk/legaltalk-impact-investing-real-estate-01mar16.pdf>.

- Kushel M., Perry S., Bangsberg D., Clark R. and Moss A. (2002) 'Emergency Department use among the homeless and marginally housed: results from a community-based study', *American Journal of Public Health*, vol. 92, no. 5: 778–84.
- Lawson, J. (2017) 'Sensible reform to finance affordable housing deserves cross-party support' [Online], *The Conversation*, <https://theconversation.com/sensible-reform-to-finance-affordable-housing-deserves-cross-party-support-72059>.
- Lawson, J., Berry, M., Hamilton, C. and Pawson, H. (2014) *Enhancing affordable rental housing investment via an intermediary and guarantee*, AHURI Final Report No. 220, Australian Housing and Urban Research Institute Melbourne Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/220>.
- Lawson, J., Legacy, C. and Parkinson, S. (2016) *Transforming public housing in a federal context*, AHURI Final Report No. 264, Australian Housing and Urban Research Institute Limited, Melbourne, <http://www.ahuri.edu.au/research/final-reports/264>, doi:10.18408/ahuri-5308201.
- Lawson, J., Milligan, V. and Yates, J. (2012) *Housing Supply Bonds—a suitable instrument to channel investment towards affordable housing in Australia?*, AHURI Final Report No.188, Australian Housing and Urban Research Institute Melbourne Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/188>.
- Lee, S., Stevensen, S. (2005) 'The Case for REITs in the mixed-asset portfolio in the short and long run', *Journal of Real Estate Portfolio Management*, vol. 11, no. 1: 55–80.
- Living Cities (2016) *Blended Catalyst Fund Annual Report: December 15, 2015 to June 30, 2016*, [Online], accessed 29 June 2017, <https://www.livingcities.org/resources/328-blended-catalyst-fund-annual-report-fiscal-year-2016>.
- Lowe, P. (2016) *Resilience and ongoing challenges*, Keynote Address to the Urban Development Institute of Australia National Congress 2016, 8 March 2016, Adelaide.
- Milligan, V., Hulse, K., Pawson, H., Flatau, P. and Liu, E. (2015) *Strategies of Australia's leading not-for-profit housing providers: a national study and international comparison*, AHURI Final Report No. 237, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/237>.
- Mission Australia (2016) *Social Enterprise* [Online], accessed 29 June 2017, <https://www.missionaustralia.com.au/what-we-do/employment-skills-training/social-enterprise/>.
- Morningstar (2013) *Morningstar After-Tax Return Methodology*, Morningstar Research Report.
- Mudaliar, A., Schiff, H. and Bass, R. (2016) *Annual Impact Investor Survey 2016*, Global Impact Investing Network, <https://thegiin.org/knowledge/publication/annualsurvey2016>.
- Mudaliar, A., Schiff, H., Bass, R. and Dithrich, H. (2017) *Annual Impact Investor Survey 2017*, accessed 29 June 2017, https://thegiin.org/assets/GIIN_AnnualImpactInvestorSurvey_2017_Web_Final.pdf.
- Muir, K., Moran, M., Michaux, F., Findlay, S., Meltzer, A., Mason, C., Ramia, I. and Heaney, R. (2017) *The opportunities, risks and possibilities of social impact investment for housing and homelessness*, AHURI Final Report No. 288, Australian Housing and Urban Research Institute Limited, Melbourne, accessed 20 September 2017, <http://www.ahuri.edu.au/research/final-reports/288>, doi: 10.18408/ahuri-7110101.

- Newell, G., Lee, C.L., Kupke, V. (2015) *The opportunity of unlisted wholesale residential property funds in enhancing affordable housing supply*, AHURI Final Report No. 249, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/249>.
- Newquay Pathfinder Project (n.d.) *People, Place, Purpose*, Shaping services around people and communities through the Newquay Pathfinder, <https://www.cornwall.gov.uk/media/6162062/Newquay-pathfinder-Evaluation-proof3.pdf>.
- North, G. (2013) *Company Disclosure in Australia*, Thomson Reuters, Australia.
- NSW Government (2015a) *Future Directions for Social Housing in NSW*, <http://www.facs.nsw.gov.au/reforms/social-housing/future-directions>.
- NSW Government (2015b) *Social Impact Investment Policy, Leading the way in delivering better outcomes for the people of NSW*, http://www.dpc.nsw.gov.au/_data/assets/pdf_file/0011/168338/Social_Impact_Investment_Policy_WEB.pdf.
- NSW Government Office of Social Impact Investment (OSII) (2015) *NSW Social Impact Investment Policy, Statement of Investment Opportunities 2015*, accessed 15 June 2017, <http://www.osii.nsw.gov.au/assets/office-of-social-impact-investment/files/Statement-of-Opportunities-2015.pdf>.
- NSW Government Office of Social Impact Investment (OSII) (2016) *NSW Social Impact Investment Policy Statement of Progress 2015*, <http://www.osii.nsw.gov.au/assets/office-of-social-impact-investment/files/Statement-of-Progress-2015.pdf>.
- Organisation for Economic Co-operation and Development (OECD) (2014) *Focus on top incomes and taxation in OECD countries: Was the crisis a game changer?*, May 2014.
- Parsell, C., Petersen, M., and Culhane, D. (2016) 'Cost offsets of supportive housing: evidence for social work', *British Journal of Social Work*, first published online 22 September 22, 2016, doi:10.1093/bjsw/bcw115.
- Peacock, M. (2016) *New models for financing affordable housing*, Social Ventures Australia, http://www.socialventures.com.au/sva-quarterly/new-model-financing-affordable-housing/#_edn1.
- Perlman J. and Parvensky J. (2006) *Denver Housing First Collaborative, Cost benefit analysis and program outcomes*, Colorado Coalition for the Homeless, Colorado.
- Pleace, N. (2015) *Crisis. At what cost? An estimation of the financial costs of single homelessness in the UK*, Centre for Housing Policy, University of York, York.
- Productivity Commission (2011) *Disability Care and Support*, Report no. 54, Canberra.
- Purves, D. (2016) Investment structures put forward for affordable housing, *Investment Magazine*, Mercer, <http://investmentmagazine.com.au/2016/04/investment-structures-put-forward-for-affordable-housing/>.
- RenewalSA (n.d.) *Renewing our streets and suburbs*, accessed 9 June 2017, https://renewalsa.sa.gov.au/building-our-future/renewing-streetssuburbs/#renewing_our_streets_and_suburbs.

- Renneboog, L., Ter Horst, J. and Zhang, C. (2008) 'Socially responsible investments: Institutional aspects, performance, and investor behavior', *Journal of Banking & Finance*, vol. 32, no. 9: 1723–42, doi: <http://dx.doi.org/10.1016/j.jbankfin.2007.12.039>.
- Reserve Bank of Australia (n.d.) www.rba.gov.au/statistics/cash-rate/.
- Rowley, S., James, A., Gilbert, C., Gurrán, N., Ong, R., Phibbs, P., Rosen, D. and Whitehead, C. (2016) *Subsidised affordable rental housing: lessons from Australia and overseas*, AHURI Final Report no. 267, Australian Housing and Urban Research Institute Limited, Melbourne, accessed 15 June 2017, <http://www.ahuri.edu.au/research/final-reports/267>, doi:10.18408/ahuri-8104301.
- Salit S., Kuhn E., Hartz A., Vu J. and Mosso A. (1998) 'Hospitalization costs associated with homelessness in New York City', *New England Journal of Medicine*, vol. 338, no. 24: 1734–40.
- Saltuk, Y. and El Idrissi, A. (2014) 'Spotlight on the Market', in *The Impact Investor Survey*, J.P. Morgan, Global Social Finance, <https://theigiin.org/assets/documents/pub/2014MarketSpotlight.PDF>.
- Saltuk, Y. and El Idrissi, A. (2015) 'Eyes on the horizon' in *The Impact Investor Survey*, J.P. Morgan, Global Social Finance, <https://theigiin.org/knowledge/publication/eyes-on-the-horizon>.
- Senate (2011) *Investing for good: the development of a capital market for the not-for-profit sector in Australia*, Senate Economics References Committee, Commonwealth of Australia, http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Completed_inquiries/2010-13/capitalmarket2011/report/index.
- SGS Economics and Planning (2017) *Rental Affordability Index, Key findings report May 2017, Aged cohorts focus*, report prepared for National Shelter, accessed 16 June 2017, http://www.shelter.org.au/sites/natshelter/files/public/documents/RAI%20Report%20May%202017%20-%20Small_3.pdf.
- ShelterSA (2017) *Capital Asset*, accessed 15 June 2017, <http://www.sheltersa.asn.au/capitalasset/>.
- Sillanpaa, V. (2013) 'Cost-effects of Housing First. Cost savings in health and judicial budgets achieved through Housing First—Case Härmälä, Tampere', presented at *Tackling Homelessness as a Social Investment for the Future conference*, June 12, Amsterdam (NL).
- Social Policy Research Centre (2007) *Housing and Accommodation Support Initiative [HASI] stage 1 evaluation report*, prepared for NSW Department of Health, Social Policy Research Centre, University of New South Wales, Sydney.
- Social Ventures Australia (SVA) (2012) 'Developing a future trust strategy for sustainability', *Quarterly*, Social Ventures Australia, http://socialventures.com.au/assets/SVA_casestudy_SecondBite.pdf.
- Social Ventures Australia (SVA) (2015) *Annual Investor Report*, <http://www.socialventures.com.au/assets/SVA-Social-Impact-Fund-FY15-Annual-Investor-Report.pdf>.

- Social Ventures Australia (SVA) (2016) *Impact investment to grow supply of affordable housing*, accessed 15 June 2017, <http://www.socialventures.com.au/news/impact-investment-to-grow-supply-of-affordable-housing/>.
- Social Ventures Australia (SVA) (2017) *ASPIRE Social Impact Bond information memorandum*, February 1 2017, accessed 20 February 2017, <http://www.socialventures.com.au/work/aspire-sib/>.
- Steering Committee for the Review of Government Service Provision (SCRGSP) (2017) *Report on Government Services 2017*, Commonwealth of Australia.
- Summer Housing Foundation (n.d.) *Summer Foundation Housing*, accessed 15 June 2017, <https://www.summerfoundation.org.au/what-we-do/housing/>.
- Teasdale, S. (2009) *Innovation in the homelessness field: how does social enterprise respond to the needs of homeless people?*, Working Paper, University of Birmingham, Birmingham, <http://epapers.bham.ac.uk/779/>.
- Teasdale, S. (2010) 'Models of social enterprise in the homelessness field', *Social Enterprise Journal*, vol. 6, no. 1: 23–34, doi: doi:10.1108/17508611011043039.
- Travia, B. and Webb, E. (2015) 'Can real property law play a role in addressing housing vulnerability?: The case of older women experiencing housing stress and homelessness', *Law in Context*, vol. 33, no. 2: 52–86.
- Van Leerdam, J. (2013) 'Analysing costs and benefits of homelessness policies in the Netherlands: Lessons for Europe', *European Journal of Homelessness*, vol. 7, no. 2: 157–81.
- Victorian Government (2017) *Social Impact Bonds in Victoria*, <http://www.dtf.vic.gov.au/Victorias-Economy/Social-Impact-Bonds-in-Victoria>.
- Ward-Christie, L. (2015) *Why Australian social enterprise needs more than impact investment*, accessed 23 June 2017, <https://probonoaustralia.com.au/news/2015/04/why-australian-social-enterprise-needs-more-than-impact-investment/>.
- Wood, G. and Ong, R. (2008) *Redesigning AHURI's Australian Housing Market Microsimulation Model*, AHURI Research Paper - AHURI-3M housing market microsimulation model, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/research-papers/redesigning-ahuris-australian-housing-market-microsimulation-model>.
- Wood, G., Watson, R., Flatau, P. (2003) *A microsimulation model of the Australian housing market with applications to Commonwealth and state policy initiatives*, AHURI Final Report No. 33, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/33>.
- Wood, L., Flatau, P., Zaretsky, K., Foster, S., Vallesi, S. and Miscenko, D. (2016) *What are the health, social and economic benefits of providing public housing and support to formerly homeless people?*, AHURI Final Report No.265, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/265>, doi:10.18408/ahuri-8202801.
- Zaretsky K., and Flatau P. (2013) *The cost of homelessness and the net benefit of homelessness programs: a national study*, AHURI Final Report No. 218, Australian

Housing and Urban Research Institute Limited, Melbourne,
<https://www.ahuri.edu.au/research/final-reports/218>.

Zaretsky, K., Flatau, P., Clear, A., Conroy, E., Burns, L. and Spicer, B. (2013) *The cost of homelessness and the net benefit of homelessness programs: a national study – Findings from the Baseline Client Survey*, AHURI Final Report No. 205, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/205>.

Appendix 1: Data used in analysis of property portfolio risk and return

Descriptive statistics

Taxable income per taxpayer is used to capture the ability of individuals to pay rent in this analysis. This is calculated at postcode level using postcode level taxable income and the number of taxpayers as obtained from the Australian Taxation Office (ATO) web site and the Australian Government data web site (Data.gov.au). While data on the population at postcode level are available from the Australian Bureau of Statistics (ABS), given the greater frequency of the ATO data and consistency in the definition of these data, we rely on the number of taxpayers supplied by the ATO in calculating our proxy for income earned at the individual level.

Summary statistics for taxable income per taxpayer are reported in Table A1 below. These include mean, standard deviation, maximum, minimum per taxpayer taxable income, and number of postcode observations by year and for the full period. There are about 37,000 postcode/year observations in this data set in total. The tax data are available for around 2,500 postcode areas each year on average, with the exception of the year 2000.

Mean per taxpayer taxable income for the whole period is \$45,000 per annum, increasing over the study period from around \$35,000 in 2000 to \$52,000 per annum in 2014.

Table A 1: Taxable income per taxpayer

Year	mean	sd	maximum	minimum	N
2000	35,132	8,683	109,086	24,407	1,676
2001	35,742	8,822	128,701	15,412	2,417
2002	37,263	8,591	148,392	18,513	2,494
2003	38,720	9,157	119,788	21,296	2,560
2004	40,166	9,628	133,475	24,232	2,437
2005	42,063	10,678	155,636	23,171	2,495
2006	43,431	11,384	156,240	18,926	2,491
2007	47,774	13,762	220,970	27,920	2,477
2008	49,905	13,267	186,128	28,171	2,483
2009	53,412	13,803	198,236	34,059	2,459
2010	55,851	14,532	182,174	35,438	2,444
2011	45,549	13,870	170,114	0	2,646
2012	48,811	14,113	175,852	17,541	2,731
2013	49,948	15,387	177,573	-4,370	2,563

Year	mean	sd	maximum	minimum	N
2014	51,940	16,469	200,015	3,148	2,562
All	45,305	14,019	220,970	-4,370	36,935

Source: The Australian Taxation Office and authors' calculations.

Descriptive statistics are reported for the median postcode level house price in Table A2 below. CoreLogic RP Scorecard Postcode level data³⁶, supplied by SIRCA³⁷, are used to capture house price information. Median sales price is reported by CoreLogic where more than 10 sales occur over the 12 month period for a particular postcode. The mean sales price is calculated for the 12 month period by dividing the total value of sales for the year by the number of properties sold over the year. Table A2 provides descriptive statistics for the median price though similar variation is also evident for the more numerous mean prices. The average of these median house prices is \$358,000, though there is a fairly steady increase in median price, beginning with \$171,000 in 2000 through to \$515,000 in 2014. Annual house sales price data are available for around 1,900 separate postcode areas for each of the years included in this study.

Table A 2: Median house prices

Year	mean	sd	maximum	minimum	N
2000	171,005	145,619	1,630,000	13,000	1,907
2001	192,368	169,580	1,880,000	10,000	1,963
2002	227,927	204,370	2,500,000	16,000	1,984
2003	269,562	229,547	2,405,000	14,575	2,012
2004	301,240	241,984	3,450,000	12,500	1,979
2005	317,594	232,089	2,810,000	15,857	1,964
2006	343,778	253,931	3,387,500	10,900	1,972
2007	387,432	290,790	3,225,000	17,500	1,971
2008	408,274	306,583	5,050,000	13,375	1,891
2009	416,515	290,664	3,505,000	10,500	1,898
2010	464,293	322,542	3,400,000	40,000	1,852
2011	456,433	322,263	4,250,000	35,000	1,825

³⁶ <http://www.corelogic.com.au/>.

³⁷ <https://www.sirca.org.au/>.

Year	mean	sd	maximum	minimum	N
2012	454,369	306,229	2,950,000	35,000	1,845
2013	477,993	357,775	5,800,000	35,000	1,865
2014	515,268	393,664	4,100,000	27,000	1,861
All	357,911	297,152	5,800,000	10,000	28,789

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

To assess the accuracy of these numbers we access the ABS Housing and Occupancy Costs report (4130.0) for the financial year 2011–12. The house owners surveyed in this study value their house at \$523,000 on average while the flat/unit/apartment owners value their residence at \$420,000. Given the endowment effect, documented by behavioural economists, predicts that owners will tend to over-value their properties (Kahneman, Knetsch et al. 1991), it is not surprising that the average sale prices reported in Table A2 for the 2012 financial year are \$454,000 and \$377,000 respectively, considerably lower than the owner valuations reported by the ABS. The CoreLogic data also includes the average discount on the proposed selling price for many of the postcodes and this is reported in Table A6 below. The average discount for house owner (unit owner) valuation is 7.67 per cent (6.35%) higher than final sale price. If we apply these discounts to the ABS data, we obtain an adjusted house (unit) price of \$483,000 (\$393,000). These are within 6 per cent of the average CoreLogic selling prices for 2012. On the basis of this comparison, it would appear that the selling prices reported by CoreLogic are reasonable.

The mean of the postcode level median unit prices is \$306,000, though the increase in postcode level median over the period from 2000 to 2014 is more lumpy than that observed for the house prices, with \$169,000 in 2000 through to \$406,000 in 2014 (see Table A3 below). The unit sales data are available for around 1,024 separate postcode areas each year when median prices are used.

Table A 3: Median unit price postcode level summary statistics

Year	mean	sd	maximum	minimum	N
2000	169,081	93,361	860,000	30,000	960
2001	188,545	112,018	1,196,000	10,650	1,005
2002	208,759	110,667	675,000	18,000	1,021
2003	241,407	115,278	747,500	37,500	1,047
2004	267,377	112,102	818,500	18,000	1,015
2005	276,212	104,031	868,000	65,000	1,022
2006	299,183	135,158	3,000,000	80,000	1,044
2007	322,792	131,157	1,990,000	85,000	1,061

Year	mean	sd	maximum	minimum	N
2008	331,904	121,546	1,925,000	89,000	1,021
2009	343,905	113,665	850,000	60,000	1,061
2010	377,673	138,266	1,550,000	83,000	1,021
2011	374,850	135,586	1,272,500	99,000	1,004
2012	377,346	136,636	1,250,125	66,500	1,014
2013	390,193	149,484	980,000	58,750	1,043
2014	406,446	165,338	1,050,000	60,000	1,031
All	305,827	146,379	3,000,000	10,650	15,370

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

It is possible to calculate mean capital gain, as well as the standard deviation in capital gains, for these dwellings (houses and units) at postcode level, given the assumption that dwellings selling at either the median or the mean house price in a postcode area are reasonably homogeneous over time. This is discussed in more detail in the main discussion. Further, we separate houses from units where feasible, given the different nature of these two broad property classes.

Median advertised house or unit weekly rent is also available in the CoreLogic RP Scorecard Postcode data set. As might be expected given the proportion of rental properties in Australia, this is only available for a subset of the postcodes, though it is reported separately for both houses (Table A4) and units (Table A5). Average weekly rent has almost doubled over the period of the study for both units and houses. Further, rent is generally lower for units than for houses. In Table A4 below, the weekly housing rental varies from \$264 per week in 2004 to \$427 per week in 2014, with a full period mean of \$374 per week. Similarly for units (Table A5 below), weekly rent varies from \$225 per week in 2004 to \$363 per week in 2014, with a full period mean of \$317 per week.

It is difficult to validate these numbers though, as with property prices, it is possible to compare the summary statistics for the CoreLogic data with the average weekly rental reported in the ABS Housing and Occupancy Costs report (4130.0) for 2011–12. Tables A4 and A5 show that the CoreLogic 2012 mean housing (unit) weekly rental is \$417 (\$354). The ABS weekly estimate for all properties (units and houses) with private landlords is \$347 while the average for the private landlords in capital cities for the same period is \$383. These numbers are fairly close to CoreLogic weekly rental data if we average across houses and units³⁸. On closer analysis of these data there is a tendency for CoreLogic weekly rental data to focus more on the capital cities and the more wealthy areas and so this may help to explain the higher levels of weekly rental reported by CoreLogic. This is discussed in later analysis.

³⁸ Further analysis of these differences is left to future research as it is difficult to get sufficiently comparable data to allow a more careful assessment of the accuracy of the CoreLogic data.

Table A 4: Median house weekly rental postcode level summary statistics

Year	mean	sd	maximum	minimum	N
2004	264	93	818	150	70
2005	284	102	830	130	1,005
2006	297	114	1,075	130	1,142
2007	327	138	2,150	125	1,250
2008	355	156	1,650	78	1,378
2009	365	156	1,800	130	1,402
2010	381	169	2,000	125	1,464
2011	400	185	2,100	140	1,530
2012	417	197	2,400	135	1,536
2013	424	199	2,000	145	1,552
2014	427	199	1,850	150	1,561
All	374	175	2,400	78	13,890

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

There are 14,000 observations with data provided for around 1,500 postcodes most years over the period from 2004 to 2014. There are 9,000 observations with data provided for around 1,000 postcodes over the study period.

Table A 5: Median unit weekly rental postcode level summary statistics

Year	mean	sd	maximum	minimum	N
2004	225	53	375	145	47
2005	234	62	480	125	637
2006	245	66	515	100	726
2007	271	74	575	110	784
2008	299	85	650	110	871
2009	312	86	673	113	898
2010	328	96	1,350	120	953
2011	343	102	1,250	135	987

Year	mean	sd	maximum	minimum	N	
2012		354	119	1,675	130	997
2013		360	113	1,200	120	1,041
2014		363	105	883	138	1,048
All		317	104	1,675	100	8,989

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Finally, Table A6 below reports market liquidity measures.

Table A 6: Mean time on market and vendor discount

year	Days on the market		Vendor discount	
	houses	units	houses	units
2004	64	58	-0.0679	-0.0613
2005	93	85	-0.0744	-0.0677
2006	90	84	-0.0692	-0.0610
2007	89	78	-0.0622	-0.0505
2008	97	82	-0.0783	-0.0634
2009	103	84	-0.0725	-0.0540
2010	90	72	-0.0661	-0.0514
2011	106	92	-0.0789	-0.0655
2012	107	94	-0.0767	-0.0635
2013	95	85	-0.0681	-0.0539
2014	89	77	-0.0660	-0.0520
All	93	81	-0.0709	-0.0586

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Market liquidity has varied over the study period. We report the mean period the property is on the market for the year and the mean vendor discount for the year to provide some insight into this characteristic of the market. One key insight from this table is the tendency for units to be on the market for a shorter period of time and for the vendor discount to be greater for houses. The number of days on the market is also less volatile for units than for houses over the study period.

These results might suggest there is a greater number of informed investors in the unit market given the shorter time on the market (93 days for houses versus 81 days for units) and the smaller discount (7% for houses versus 6% for units). Perhaps unit holders better understand the value of their properties at the time they decide to sell, though both groups tend to start off with a price that is considerably higher than the final selling price on average consistent with the endowment effect discussed in the behavioural economics literature (Kahneman, Knetsch et al. 1991).

These aspects of the residential market are important for investors who are concerned with return on investment and the ability to liquidate an investment when required. Investors tend to favour more liquid assets. Of particular importance for an investor is the increased discount and longer time on the market that is observed during more difficult economic periods, particularly in the post-GFC period as is indicated in Table A6 in particular.

Appendix B: Adjustment for tax and transaction costs

The work in this appendix draws on a full cost Internal Rate of Return (IRR) model developed by academics at the AHURI Research Centre at RMIT University. This model includes adjustment for taxes and transaction costs and management fees. The value of an investment property can be written in terms of the present value of rent, costs of purchase and return from sale. While investors may choose to hold property directly (see Section B1 below) this is not always consistent with impact investor objectives. They may prefer to invest in mutual funds, venture capital entities or private equity funds in order to achieve their social impact objectives as well as meeting their investment objectives (see Section B2 below). This allows institutional investors to make social impact investments in property without the need to have a specialist property management team to deal with their property portfolio.

B1. Direct investment in property

If an investor makes a direct investment in property and takes on the responsibility of a landlord then they would value the property using a model similar to that set out below.

B.1.1 Rent

The present value of rent after tax and costs includes adjustment for taxes and management costs and expected vacancy costs. Rent, R_t , is the total amount received expressed in end of year dollars. The costs incurred in earning rent, C_t , are similarly expressed in end of year dollars and these include maintenance, land taxes, rates and other costs of managing the property. Vacancy rate adjustment is also included, θ , as is income tax levied on the landlord using the rate, γ .

$$PV(RATC_{o,N}) = \sum_{t=1}^N (R_t(1 - \theta) - C_t)(1 - \gamma)/(1 + r)^t \quad (A.1)$$

B.1.2 Costs of purchasing property

Purchase costs could be written as:

$$PC_0 = (V_0 + REF_0 + SD_0) \quad (A.2)$$

Where V_0 is the purchase price of the property paid at time 0, SD_0 is the stamp duty paid on the purchase of the property, REF_0 refers to real estate agent fees.

B.1.3 Return from sale of property

The proceeds on sale of the property after all costs and taxes consists of the value of the property at time N, V_N , less capital gains tax.

$$SP_0 = (V_N - REF_N)/(1 + r)^N - (V_N - REF_N - PC_0)\gamma\delta/(1 + r)^N \quad (A.3)$$

Where V_N is the sale price of the property paid at time N and δ is the adjustment for capital gains tax with $\delta = 1$ indicating the capital gain is taxed at 100 per cent of the landlord's tax rate (corporations or individual who holds the property for less than 12 months) and $\delta = 0.5$ indicating capital gain is taxed at 50 per cent (individuals where the property is held for more than 12 months).

B.1.4 Value of the property

The value of the property can be estimated by summing the present value of the rents and the present value of the final payment after all costs and taxes. The profit or loss on the sale of the property is the difference between this value and the total amount paid in acquiring the property. Thus, the profit from the property is written:

$$Profit_{0,N} = PV(RATC_{o,N}) + SP_0 - PC_0 \quad (A.4)$$

In a competitive market, it is expected that the profit on purchase of the property is zero and so the value that a competitive market attaches to the property is solved by setting equation (A.4) equal to zero and rearranging to give:

$$0 = PV(RATC_{0,N}) + SP_0 - PC_0 = PV(RATC_{0,N}) + SP_0 - V_0 - REF_0 - SD_0$$

The price, V_0 , we see in the market is thus:

$$V_0 = PV(RATC_{0,N}) + SP_0 - REF_0 - SD_0$$

B.1.5 Approximation for internal rate of return on investment for long horizons

It may be useful to define the return on the property. Given the definitions above, the return over the N year period is written:

$$Return_{0,N} = Profit_{0,N}/PC_0 \quad (A.5)$$

The return expressed as a rate per month is written:

$$R_{0,N} = (1 + Return_{0,N})^{1/(12*N)} - 1 \quad (A.6)$$

It is possible to simplify this calculation with some assumptions. Given a discount rate of 10 per cent and a 40-year property life, the cash flow on sale of the asset in 40 years is discounted to around 2 per cent of the nominal value that could be ignored for calculation purposes. This leaves the rental and initial price for valuation of the property. A fairly good approximation of the return on the property is provided by a perpetuity with discount rate of 10 per cent. Thus, equation (A.5) is approximated by deducting property purchase costs from the present value of the rent perpetuity, giving:

$$Profit_{0,N} = (R_t(1 - \theta) - C_t)(1 - \gamma)/r - PC_0$$

And

$$\begin{aligned} Return_{0,N} &= [(R_t(1 - \theta) - C_t)(1 - \gamma)/r - PC_0]/PC_0 \\ &= [(R_t(1 - \theta) - C_t)(1 - \gamma)/r]/PC_0 - 1 \end{aligned} \quad (A.7)$$

Thus, if it is possible to estimate the equivalent annual cash flow perpetuity for a long-term property investment, personal tax rate, occupancy rate and discount rate, then it is possible to approximate the discounted cash flow-based valuation for the property.

B2. Taxes and costs attributable to property investment

The income and capital gains taxes area is dealt with in two ways. The first is to calculate pre-liquidation after tax returns and the second is to calculate post-liquidation after tax returns following the approach set out for estimating returns on mutual funds (Morningstar 2013). In the first approach, it is assumed the properties are not sold at the end of the return calculation period and so transaction costs and taxes relate only to rental income. In the second approach, it is assumed that the property is sold at the end of the 12 month return calculation period. In this case there are selling costs and purchase costs to be included in the return calculation. The transaction costs set out for Melbourne properties are relied upon in this analysis as there is some consistency across Australia with items like management fees, local government authority rates and maintenance costs. Following the Department of Human Services report, we model returns in the hands of individuals, superannuation funds and companies.

The schedule of cash flows, relied upon in this study for estimates of transaction and tax costs of a rental property, is taken from Appendix A3.5 in the report entitled *Investment returns from rental housing in Melbourne 1998–2009* (Department of Human Services 2010) and the appropriate sections repeated in Tables B1, B2 and B3 in this report. As can be seen from Table B1 below, this report indicates land tax on houses is about 1–2 per cent of gross rent. Building insurance accounts for 3 per cent of gross rent for both houses and units. Maintenance

accounts for 14–16 per cent. LGA rates accounts for 9–10 per cent and management fees account for 11 per cent of gross rent on average. In total, transaction costs and taxes account for around 42 per cent of house gross rental and 37 per cent of unit gross rental for this sample of Melbourne properties. These numbers appear reasonable for the purposes of the present study.

Table B 1: Taxes and transaction costs incurred in renting a property

	Houses	Houses %	Units	Units %	All	All %
Average gross rent	13,870	100%	12,633	100%	13,368	100%
Average land tax	227	2%	60	0%	159	1%
Average building insurance	423	3%	343	3%	391	3%
Average maintenance	2,169	16%	1,763	14%	2,005	15%
Average LGA rates	1,442	10%	1,170	9%	1,332	10%
Average management fees	1,526	11%	1,390	11%	1,471	11%
Average operating costs	5,787	42%	4,726	37%	5,357	40%
Rental after costs	8,083	58%	7,907	63%	8,011	60%

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

The cost of purchasing a property area is set out in Table B2 below and includes just one item, stamp duty, which accounts for about 4 per cent of the purchase price. Other costs, such as legal fees, are essentially immaterial as a result of competition in this market over the period of the study and so these fees are ignored for the present.

Table B 2: Costs incurred in purchase of a property

	Houses	Houses %	Units	Units %	All	All %
Average purchase price	245,059	100%	211,241	100%	231,337	100%
Average stamp duty	10,433	4%	8,523	4%	9,664	4%

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

The costs of selling a property are set out in Table B3 below. These costs include both selling fees and costs of selling and amount to 12 per cent of the selling price for houses and 11 per cent of the price of units.

Table B 3: Cost incurred in sale of a property

	Houses	Houses %	Units	Units %	All	All %
Average sale price	361,979	100%	281,498	100%	329,322	100%
Average selling fees	10,623	3%	8,623	3%	9,812	3%
Capital gains tax	tbc		tbc		tbc	

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

Income and capital gains taxes are also important in this analysis as these have an impact both on rental returns and on capital gains in the second measure, in which it is assumed that property is purchased at the beginning of the 12 month return calculation period and sold at the end of the period. The assumptions for personal taxes are set out in Table B4 below.

Table B 4: Income tax and capital gains tax rates

	Individual	Company	Super fund
Income tax rate (%)	49%*	30%	15%
Capital gains tax rate (%)	24.5%^	30%	10%^

Source: RP Data Pty Ltd trading as CoreLogic and authors' calculations.

*Includes 2 per cent for budget repair levy, ^ capital gains tax is 50 per cent of the personal tax rate for individuals and 2/3rds of the superannuation income rate for superannuation funds.

B3. Calculation of rates of return

There are two approaches to calculation of return in this section. The first approach assumes the property is held for the long term, with the calculated return reflecting the cash flows generated in the period scaled by the property value at the beginning of the period. The second approach assumes that the property is bought at the beginning of the 12 month return period and sold at the end of the 12 month return period.

B3.1 Property held for the long run

Transaction costs are based on Melbourne estimates for the period from 1998 to 2007 (Department of Human Services 2010) as reported in Tables B1, B2 and B3. Rent is that supplied for the postcode. The occupancy rate, θ , is assumed to be 1.3 per cent and the annual operating costs, C_t , are assumed to be 42 per cent for houses and 37 per cent for units. There are four broad groups of investors modelled in this section. Equation (1), (2), (3) and (A.7) are relied upon in deriving after-tax returns. The first group consists of the philanthropists who are not taxed but still face transaction costs.

$$ATR_{P,t}^{LR} = ((R_t(1 - \theta) - C_t) + P_t)/P_{t-1} - 1 = RY_t(1 - \theta) - C_t/P_{t-1} + CG_t \quad (B.1)$$

The second group consists of taxed individuals.

$$ATR_{I,t}^{LR} = ((R_t(1 - \theta) - C_t)(1 - 0.47))/P_{t-1} = RY_t(1 - \theta)(1 - 0.47) - C_t(1 - 0.47)/P_{t-1} + CG_t \quad (B.2)$$

The third is for taxed corporations, and

$$ATR_{C,t}^{LR} = ((R_t(1 - \theta) - C_t)(1 - 0.30))/P_{t-1}, = RY_t(1 - \theta)(1 - 0.30) - C_t(1 - 0.30)/P_{t-1} + CG_t \quad (B.3)$$

the fourth concerns superannuation funds taxed at 15 per cent.

$$ATR_{S,t}^{LR} = ((R_t(1 - \theta) - C_t)(1 - 0.15))/P_{t-1} = RY_t(1 - \theta)(1 - 0.15) - C_t(1 - 0.15)/P_{t-1} + CG_t$$

B3.2 Property held for 12-month return period

The current Australian income and capital gains tax rates are set out in Table B4 below for individuals, corporations and superannuation funds. Transaction costs are based on Melbourne estimates for the period from 1998 to 2007 (Department of Human Services 2010) as reported in Tables B1, B2 and B3 above. In this case, the property is bought at the beginning of the period and sold at the end of the period and there are additional purchase costs, KC_{t-1} , and selling costs, KC_t . The return calculation is based on equation (A.7). Again, there are four broad groups of investors modelled in this section, giving rise to four separate equations. The first consists of the philanthropists who are not taxed but still face transaction costs.

$$ATR_{P,t}^{12m} = \{(R_t(1 - \theta) - C_t) + (P_t - KC_t - (P_{t-1} - KC_{t-1}))\}/(P_{t-1} + KC_{t-1}) \\ = RY_t(1 - \theta) + CG_t - (C_t + KC_t + KC_{t-1})/(P_{t-1} + KC_{t-1}) \quad (B.5)$$

The second group consists of taxed individuals.

$$ATR_{I,t}^{12m} = \{(R_t(1 - \theta) - C_t)(1 - 0.47) + (P_t - KC_t - (P_{t-1} + KC_{t-1}))(1 - 0.235)\}/(P_{t-1} + KC_{t-1}) \quad (B.6)$$

The third is for taxed corporations, and

$$ATR_{C,t}^{12m} = \{(R_t(1 - \theta) - C_t)(1 - 0.30) + (P_t - KC_t - (P_{t-1} + KC_{t-1}))(1 - 0.30)\}/(P_{t-1} + KC_{t-1}) \quad (B.7)$$

the fourth concerns superannuation funds taxed at 15 per cent.

$$ATR_{S,t}^{12m} = \{(R_t(1 - \theta) - C_t)(1 - 0.15) + (P_t - KC_t - (P_{t-1} + KC_{t-1}))(1 - 0.10)\}/(P_{t-1} + KC_{t-1}) \quad (B.8)$$

B4. Indirect investment in property

Impact investors could make indirect investments in property through wholesale mutual funds (listed or unlisted trusts) or private equity or other corporations that specialise in property investment. While corporations are rarely used as indirect property investment vehicles by the larger institutions, mutual funds are very common, and listed funds like real estate investment trusts (REITs) and residential real estate investment trusts (RREITs) are generally well understood. There are two sources of tax—tax on income and tax on capital gains.

Residential properties could be held as standalone assets and these investments would be subject to individual tax rates. Property investment could be achieved via corporate investment. In this case Australian earnings from the portfolio are subject to Australian company tax. These Australian earnings may be distributed to shareholders as franked dividends. Australian resident shareholders who receive these dividends can benefit from the attached franking credits. Gains or losses from the sale of property are also subject to company tax as buying or selling property would be part of the ordinary business of the company. A property portfolio could be held in trust for the benefit of the unit holders and this is by far the best known of the indirect property investment vehicles. The trust could be either a listed trust or an unlisted trust. Trusts are not separate legal entities in the way that a corporation is a separate legal entity. A property trust represents a relationship where the trustee holds property for the benefit of the unit holder. The

unit holders in the trust pay tax on the trust net income attributed to them under tax law³⁹. If the trust receives franked dividends then both the dividends and franking credits pass through to the unit holder subject to the rules of the trust. Similarly, any income or capital gains accruing to trust activities are passed through to the unit holder. In both cases the tax is levied at the unit holder's marginal tax rate.

³⁹ There is no franking credit on the earnings of the property held under the trust as it is not a separate legal entity. Tax on net income of the trust accrues directly to the unit holder.

Appendix C: Interview documentation

There are three sets of questions for the interviews. The first is for social impact investors outside of homelessness area (C1.1). The second is for social entrepreneurs (C1.2), and the third is for social impact investors in housing (C1.3).

C1.1 Interview schedule—Social Impact Investors outside of homelessness area

- 1 So, tell me about your experiences with social impact investing:
 - a. What are the projects or endeavours you have invested in?
 - b. How do you feel about the success of the project(s)?
 - c. What factors did you consider when making the investment? What were the pros and cons? Deciding factors?
 - d. What form of investment did you decide on and why? What are the pros and cons of the different investment formats?
 - e. What drew you to social impact investing in general? What are the factors that made you invest in the particular area(s) of need you've invested in?
- 2 What barriers and challenges did you face in investing?
 - a. These can be specific to your particular investment, or more general, e.g., resistance from financial institutions.
- 3 Is there anything in particular that turned you away from investing in the homelessness area?
 - a. What factors could be changed to make social impact investing in housing more attractive?
- 4 So, if you were to engage in social impact investing again, what would you do differently?
 - a. What would you handle differently personally?
 - b. What about broader challenges?
 - c. What challenges do you think were specific to particular investments?
 - d. Would you do it again? Why/Why not?
- 5 What changes could be made to facilitate social impact investing in housing?
 - a. These changes can occur anywhere—financial regulations, the NFP sector, the media etc.

C1.2 Interview schedule—Social Entrepreneurs

- 1 So, tell me about your enterprise:
 - a. What is it?
 - b. What attracted you to social entrepreneurship?

- c. Where did you get this particular idea from?
- d. Is housing and homelessness a particular area of interest for you?
- e. How do you feel about the success of the enterprise?
- f. What factors did you consider when starting up? What were the pros and cons? Deciding factors?
- g. What form of financing did you decide on and why? What are the pros and cons of the different investment formats?

2 What barriers and challenges did you face in setting up the enterprise?

- a. These can be specific to your particular enterprise, or more general, e.g., resistance from financial institutions.

3 So, if you were to do it again, what would you do differently?

- a. What would you handle differently personally?
- b. What about broader challenges?
- c. What challenges do you think were specific to particular enterprises?
- d. Would you do it again? Why/Why not?

4 What changes could be made to facilitate social entrepreneurship in general?

- a. These changes can occur anywhere—financial regulations, the NFP sector, the media etc.
- b. What could be changed to attract entrepreneurs to the homelessness area?

C1.3 Interview schedule—Social Impact Investors in housing

1 So, tell me about your experiences with social impact investing in housing:

- a. What are the projects or endeavours you have invested in?
- b. How do you feel about the success of the project(s)?
- c. What factors did you consider when making the investment? What were the pros and cons? Deciding factors?
- d. What form of investment did you decide on and why? What are the pros and cons of the different investment formats?
- e. What drew you to social impact investing in general? What led you to invest in housing specifically?

2 What barriers and challenges did you face in investing?

- a. These can be specific to your particular investment, or more general, e.g., resistance from financial institutions.

- 3 So, if you were to do it again, what would you do differently?
 - a. What would you handle differently personally?
 - b. What about broader challenges?
 - c. What challenges do you think were specific to particular investments?
 - d. Would you do it again? Why/Why not?

- 4 What changes could be made to facilitate social impact investing in housing?
 - a. These changes can occur anywhere—financial regulations, the NFP sector, the media etc.

C1.4 Email message used to contact interviewees

Hello [name],

We are contacting you in relation to a research project that researchers at the University of Western Australia and Curtin University are undertaking on social impact investing in the homelessness area. As someone involved in [social impact investment in housing] [social entrepreneurship in housing] [social impact investment], we feel that your perspective would be particularly valuable.

They are looking to conduct 30-minute long interviews to discuss your experience in this area—the project(s) that you've been involved with, facilitators, barriers and challenges faced in engaging, and changes that could be made to attract more investment in this space.

Attached is a Participant Information Form that provides further details about the project. If you would like to participate or need more information, please contact Eileen Webb eileen.webb@curtin.edu.au to arrange a mutually agreeable time.

Kind Regards,

[name]

C1.5 PIF statement

RESEARCH STUDY: SOCIAL IMPACT INVESTMENT IN HOUSING

What is the Project?

This project, led by Professor Richard Heaney and funded by the Australian Housing and Urban Research Institute, examines how four types of social impact investment, namely mutual funds, private capital, loans and social impact bonds, can be used to expand housing options for those at risk of homelessness such as vulnerable seniors and people with disabilities, as well as currently homeless people. In addition, the project will explore how social enterprises, a different type of impact investment, can improve outcomes for homeless individuals. This research will mostly focus on the modelling of financial data, but we feel it is extremely important to ground

these data using the first-hand experiences of people in the social impact investing and social entrepreneurship space. This is where we seek your perspective. We seek to understand the perceptions of social impact investment in housing; successes and failures, facilitators, barriers and challenges, and considerations for investors and stakeholders when investing in this space.

How do I participate?

We would like to conduct interviews, approximately 30 minutes in length, with people who have been involved in social impact investing or social entrepreneurship. We are particularly interested in people who have, are considering, or are currently invested in the housing area; those who have considered social impact investing or entrepreneurship in the housing area, but decided against it; and those who are involved in a different area of social impact investment. If, upon reading this information and having any questions you have answered by the research team, you would like to participate, please contact Eileen Webb (eileen.webb@curtin.edu.au) to determine a mutually agreeable time and place to conduct the interview. Audio recordings will be made of the interviews. These recordings will not identify you personally and will be destroyed as soon as they are transcribed, and the transcriptions will be assigned a reference number that does not relate to or reveal your identity.

Are there any risks in participating?

No, you face no risks to your health, safety or employment by participating in this survey. Your answers will remain completely anonymous and participation is entirely voluntary. You may decline to answer questions you are not comfortable answering and you can withdraw from the study at any time without consequence or explanation, and your data will be discarded if you choose to withdraw. No individual participant will be named in any presentation of the results, and no data (i.e. quotes) that we believe could identify a particular individual will be used. Data will be stored in a password-protected folder and will only be accessed by researchers directly involved with the project. After analysis has been completed, the data will be removed from the computers it is stored on in accordance with the Australian Government Information Security Manual (ISM), which recommends overwriting the media at least once in its entirety with a random pattern followed by a read back for verification. The researchers estimate that this will be completed by end-2018. Please feel free to email Professor Richard Heaney, the chief investigator (richard.heaney@uwa.edu.au) with any questions you may have about this study and/or your participation in it.

Approval to conduct this research has been provided by the University of Western Australia, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time.

In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Ethics Office at the University of Western Australia on (08) 6488 3703 or by emailing to humanethics@uwa.edu.au.

All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.

Sincerely yours,

Richard Heaney

AHURI Research Centres

AHURI Research Centre—Curtin University

AHURI Research Centre—RMIT University

AHURI Research Centre—Swinburne University of Technology

AHURI Research Centre—The University of Adelaide

AHURI Research Centre—The University of New South Wales

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AHURI Research Centre—University of Tasmania

Australian Housing and Urban Research Institute

Level 1

114 Flinders Street

Melbourne Victoria 3000

T +61 3 9660 2300

E information@ahuri.edu.au

ahuri.edu.au

ACN 090 448 918



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