PEER REVIEWED

FINAL REPORT NO. 342

Demand-side assistance in Australia's rental housing market: exploring reform options

Authored by

Rachel Ong, Curtin UniversityHal Pawson, The University of New South WalesRanjodh Singh, Curtin UniversityChris Martin, The University of New South Wales

Publication Date October 2020 DOI 10.18408/ahuri8120801



Title

Demand-side assistance in Australia's rental housing market: exploring reform option

Authors

Rachel Ong, Curtin University Hal Pawson, The University of New South Wales Ranjodh Singh, Curtin University Chris Martin, The University of New South Wales

ISBN

978-1-922498-08-3

Key words

Commonwealth Rent Assistance, demand side subsidy, private rental, low-income.

Series

AHURI Final Report

Number

342

ISSN

1834-7223

Publisher

Australian Housing and Urban Research Institute Limited Melbourne, Australia

DOI

10.18408/ahuri8120801

Format

PDF, online only

URL

https://www.ahuri.edu.au/research/final-reports/342

Recommended citation

Ong, R., Pawson, H., Singh, R. and Martin, C. (2020) Demandside assistance in Australia's rental housing market: exploring reform option, AHURI Final Report No. 342, Australian Housing and Urban Research Institute Limited, Melbourne, <u>https://www.ahuri.edu.au/research/finalreports/342</u>, doi: 10.18408/ahuri8120801.

AHURI

AHURI is a national independent research network with an expert not-for-profit research management company, AHURI Limited, at its centre.

AHURI's mission is to deliver high quality research that influences policy development and practice change to improve the housing and urban environments of all Australians.

Using high quality, independent evidence and through active, managed engagement, AHURI works to inform the policies and practices of governments and the housing and urban development industries, and stimulate debate in the broader Australian community. AHURI undertakes evidence-based policy development on a range of priority policy topics that are of interest to our audience groups, including housing and labour markets, urban growth and renewal, planning and infrastructure development, housing supply and affordability, homelessness, economic productivity, and social cohesion and wellbeing.

Acknowledgements

This material was produced with funding from the Australian Government and state and territory governments. AHURI Limited gratefully acknowledges the financial and other support it has received from these governments, without which this work would not have been possible.

AHURI Limited also gratefully acknowledges the contributions, both financial and in-kind, of its university research partners who have helped make the completion of this material possible.

This report uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Report was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

The authors are grateful to Vivienne Milligan (University of NSW) and Mark Harris (Curtin University) for their helpful comments and suggestions pertaining to the analysis in this report. This report has also benefited from the input of housing policy experts from the Australian Government and state governments, as well as non-government sectors. These experts attended an AHURI Policy Engagement workshop in September 2019, during which they provided policy advice and suggestions that fed into the design of the reforms presented in this report.

Disclaimer

The opinions in this report reflect the views of the authors and do not necessarily reflect those of AHURI Limited, its Board, its funding organisations or Inquiry panel members. No responsibility is accepted by AHURI Limited, its Board or funders for the accuracy or omission of any statement, opinion, advice or information in this publication.

AHURI journal

AHURI Final Report journal series is a refereed series presenting the results of original research to a diverse readership of policy-makers, researchers and practitioners.

Peer review statement

An objective assessment of reports published in the AHURI journal series by carefully selected experts in the field ensures that material published is of the highest quality. The AHURI journal series employs a double-blind peer review of the full report, where anonymity is strictly observed between authors and referees.

Copyright

O Australian Housing and Urban Research Institute Limited 2020

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License, see http:// creativecommons.org/licenses/by-nc/4.0/.



Contents

List of tables	iii
Acronyms and abbreviations used in this report	iv
Glossary	iv
Executive summary	1
1. Introduction	7
1.1 Why this research was conducted	8
1.2 Policy context	9
1.3 Research methods	11
1.3.1 International and national literature review	12
1.3.2 Policy engagement	12
1.3.3 Econometric modelling	12
1.3.4 Policy simulation modelling	13
1.3.5 Relative price analysis	13
2. Demand-side rental housing assistance:	
existing research, concepts and examples in comparator countries	14
2.1 Rent concepts and theories	15
2.2 Rental housing allowances in principle	
2.3 Rent assistance in Australia and select	•••••
comparator countries	18
2.3.1 Australia	20
2.3.2 Germany	.22
2.3.3 Ireland	23
2.3.4 New Zealand	.24
2.3.5 United Kingdom	24
2.3.6 United States	25
2.4 Policy development implications	26
3. Demand-side rental housing assistance	
and market rents	
3.1 Existing research on this chapter's theme	
3.2 Data and model	
3.2.1 Data	
3.2.2 Model	
3.2.3 Sample	
3.3 Impact of CRA on market rents	33
3.4 Policy development implications	36
4. Commonwealth Rent Assistance: distribution and effectiveness	37
4.1 Measurement and definitions	38
4.1.1 Unit of analysis	

4.1.2 Estimating income unit rents	
4.1.3 Low-income private renter sample	38
4.1.4 Housing cost, income and housing cost	
burdens	39
4.1.5 Analysis themes	39
4.2 Profile of low-income CRA recipients	40
4.3 Cost-effectiveness of CRA	43
4.4 Policy development implications	45
5. Demand-side rental housing assistance	
reform: impacts of three reform options	47
5.1 CRA reform designs	49
5.1.1 Reform 1: Raise CRA maximum rates by 30 per cent	50
5.1.2 Reform 2: Re-setting the rent thresholds	
to address greater housing stress among	
income units with no children	50
5.1.3 Reform 3: Change the CRA eligibility	
criteria to reflect housing need	
5.2 What is the cost-effectiveness of alternative reforms?	52
5.3 who are the winners and losers of the	
reforms?	55
reforms? 5.4 How will the reforms influence the cost	55
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning?	55 59
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be	55 59
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform?	55 59 60
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications	55 59 60 62
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options	55 59 60 62 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current	55 59 60 62 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure	55 59 60 62 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness	55 59 60 62 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.1.2 Appropriateness	55 59 60 62 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.1.2 Appropriateness 6.2 Impacts of CRA reforms on low-income private renters	55 59 60 62 63 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side	55 59 60 62 63 63 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side rental housing assistance on market rents	55 59 60 62 63 63 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.1.2 Appropriateness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side rental housing assistance on market rents 6.4 Final remarks: other private rental policy	55 59 60 62 63 63 63 63 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.1.2 Appropriateness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side rental housing assistance on market rents 6.4 Final remarks: other private rental policy development options	55 59 60 62 63 63 63 63 63 64 65 66
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side rental housing assistance on market rents 6.4 Final remarks: other private rental policy development options 6.4.1 Demand-side subsidy reforms	55 59 60 62 63 63 63 63 63 63 63 63 63 63 63 63 63
reforms? 5.4 How will the reforms influence the cost of private renting relative to the cost of owning? 5.5 What constitutional problems may be encountered in CRA reform? 5.6 Policy development implications 6. Policy development options 6.1 Strengths and weakness of the current CRA program structure 6.1.1 Effectiveness 6.1.2 Appropriateness 6.2 Impacts of CRA reforms on low-income private renters 6.3 Likely effect of changes in demand-side rental housing assistance on market rents 6.4 Final remarks: other private rental policy development options 6.4.1 Demand-side subsidy reforms 6.4.2 Supply-side reforms	55 59 60 62 63 63 63 63 63 63 63 63 63 63 63 64 65 66 66 66 66

List of tables

Table 1: CRA fortnightly rates and thresholds,
by income unit type, as at 20 September 2017
and 20 March 2020 10
T () ()
Table 2: Annual real government expenditure
on CRA, 2014–15 to 2018–19, at 2018–19 price levels 11
Table 3: Private rental housing assistance
programs and their main features; Australia
and select countries 18
Iable 4: Predictors in the rent regression model 32
Table 5: Rent regression model, 2001–17 34
Table 6: Profile of low-income and moderate-
income private renters, by CRA recipient
status, 2017, population counts and per cent column 41
Table 7: Mean gross and net housing cost
burdens, low-income and all CRA recipient
income units only, 2017 43
Table 8: Incidence of housing stress pre- and
post-CPA low-income CPA recipionts 2017 42
post-CRA, low-income CRA recipients, 2017 45
Table 9: Target-error groups (TEGs) and target-
accurate groups (TAGs) among low-income
private renters, 2017 44
Table 10: Characteristics of target-error
groups (TEGs) and target-accurate groups
(TAGs) based on the moderate housing stress
benchmark, column per cent, low-income
private renters, 2017 45
Table 11: Actual and reformed fortnightly CRA
maximum rates, 2017 50
Table 12: Actual and reformed fortnightly CRA
rent thresholds, 2017 51
Table 13: Target-error groups (TEGs) and target-
accurate groups (TAGs) among low-income
private renters, actual and reformed, 2017 53
Table 14: Count and incidence of housing stress
post-reform, low-income private renter income
units only, 2017 53
Table 15: Mean net housing cost of low-income
CRA recipient income units living in severely
disadvantaged areas before and after CRA is
conitalised into repts 2017
Capitalised into rents, 2017 54
Table 16: Annual cost of CRA reforms, in 2017 dollars 55
Table 17: Table 17: Number and per cent of low-
income private renter income units that would
experience a change in CRA payments after the
reforms, 2017 56
Table 18: Table 18: Characteristics of low-
income private renter income units that would
experience a change in CRA after the reforms 2017 58

Table 19: Cost of renting versus cost of owning,
low-income private renter income units, 201760Table 20: Table 20: Effectiveness,
appropriateness and efficiency of CRA reforms,
201765

Acronyms and abbreviations used in this report

AFTSR	Australia's Future Tax System Report
ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute Limited
ACOSS	Australian Council of Social Service
AIHW	Australian Institute of Health and Welfare
AS	Accommodation Supplement (NZ)
СРІ	Consumer Price Index
CRA	Commonwealth Rent Assistance
DSS	Department of Social Services
EHAP	Experimental Housing Allowance Program
FTB	Family Tax Benefit
HAP	Housing Assistance Payment (Ireland)
HILDA	Household, Income and Labour Dynamics in Australia
LHA	Local Housing Allowance (UK)
NZ	New Zealand
OECD	Organisation for Economic Co-operation and Development
PHA	Public housing authority (US)
PC	Productivity Commission
PRA	Private rental assistance
RS	Rent Supplement (Ireland)
SEIFA	Socio-economic Indexes for Areas
TAG	Target-accurate group
TEG	Target-error group
TER	Target-error rate
UC	Universal Credit (UK)
UK	United Kingdom

US United States

Glossary

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

Executive summary

Key points

- By international comparison, Australia's Commonwealth Rent Assistance (CRA) regime is distinctive in terms of being (a) restricted to income-support recipients; (b) paid to renters, not landlords; (c) capped at modest maximum rates; (d) regionally invariant; and (e) not rationed.
- In severely disadvantaged areas, 32.4 per cent of a modelled increase in CRA is shifted into higher rents. CRA is more likely be captured in higher rents in disadvantaged rental markets because of relatively inelastic housing supply in low-value market segments.
- Out of 1.41 million low-income private renter income units, nearly two-thirds or 933,000 are assisted by CRA. Meanwhile, CRA is also paid to 419,000 private renter income units with moderate incomes, partly due to targeting error.
- Over one-third of low-income CRA recipients still carry a net housing cost burden of more than 30 per cent after CRA is deducted from rents.
- Around 246,000 or 18 per cent of low-income private renter income units pay rents that exceed 30 per cent of their income but are ineligible for CRA. Another 330,000 or 23 per cent receive CRA despite paying rents below 30 per cent of their income. CRA's overall target error rate is 41 per cent.

- Raising the CRA maximum rate would improve affordability outcomes for 623,800 income units or 44 per cent of low-income private renters. However, it is the costliest of the three modelled reforms, requiring additional annual expenditure of \$1 billion to amount to a total cost of \$5.6 billion.
- Reforming the CRA eligibility rules to reflect housing need would achieve the greatest housing affordability improvements among the three modelled reforms, and at the lowest cost. The reform would reduce the CRA target error rate to zero and cut the population of low-income private renter income units in housing stress by 371,200 or 44 per cent. At the same time, it would generate an annual cost saving of \$1.2 billion.
- Because it would involve severing the existing link with other social security entitlements, constitutional barriers would need to be overcome to change the CRA eligibility rules to reflect housing need. However, it is possible that this issue could be addressed within existing constitutional limitations.

Key findings

What is the likely effect of changes in demand-side rental housing assistance on market rents?

Our modelling detected that an increase in CRA is likely to be partially absorbed into higher rents in disadvantaged neighbourhoods. In moderately to severely disadvantaged areas, 6.6 per cent of any increase in CRA can be expected to be 'lost' to higher rents in this way. In severely disadvantaged areas, 32.4 per cent of CRA is absorbed by higher rents. CRA is more likely be captured in higher rents in markets with relatively inelastic rental housing supply. This is because any CRA-induced rise in rental housing consumption cannot be adequately met by new housing supply. In the absence of an adequate supply response, rents rise. Capitalisation effects are thus more prominent in disadvantaged neighbourhoods because new housing supply is relatively inelastic in low-value housing market segments in Australia. This source of market failure contributes to the presence of capitalisation effects in disadvantaged areas.

What are the impacts of reforming CRA on low-income private renters?

We model three reforms:

- Reform 1: Raising the CRA maximum rate by 30 per cent
- **Reform 2:** Resetting the rent thresholds to address higher levels of housing stress among income units with no children
- **Reform 3:** Changing the CRA eligibility criteria to reflect housing need, defined as low-income private renters paying rents in excess of 30 per cent of their income.

Reforming the CRA program to reflect housing need (reform 3) would achieve the greatest affordability improvements at the lowest cost. Such a reform would reduce targeting error down to zero. The other two reforms have mild to no impact on target error rates. Reform 3 would also reduce the population of low-income private renter income units in housing stress by 371,200 or 44 per cent. This is a slightly greater reduction than the 342,200 (40%) decline achieved under reform 1 and the 303,700 (36%) decline achieved under reform 2. Raising the CRA maximum cap is the costliest reform, requiring additional annual expenditure of \$1 billion, amounting to a total cost of \$5.6 billion. Reform 3 is the least costly; changing the CRA eligibility rules to reflect housing need will generate annual cost savings of \$1.2 billion, reducing CRA expenditure to \$3.4 billion.

Raising the CRA maximum rate (reform 1) would generate the largest number of winners, amounting to 623,800 income units or 44 per cent of low-income private renters, albeit at the greatest cost. No low-income private renter would be worse off if the CRA maximum rate were raised. Changing the eligibility rules would see a shift in the composition of people who benefit from CRA; it would reduce the number of income units whose rents fall below the moderate housing stress benchmark, and increase the number of income units whose rents exceed the benchmark. This would result in 246,000 beneficiaries from the reform and 330,300 who would see their position deteriorate as a result of the reform.

Though some portion of CRA is shifted into higher rents for those living in severely disadvantaged areas, these effects make little impact on dampening the effectiveness of the reforms. Low-income private renter income units living in severely disadvantaged areas often pay such low rents that many fall below the rent thresholds required to quality for CRA under actual or reformed arrangements, despite their low-income status.

Overall, each reform will have negligible impact on the relative price of renting to owning for low-income renters. While reforms 1 and 2 will reduce the average net cost of renting, it is unlikely that they will assist in a move out of the private rental sector into home ownership. The small amount of annual savings is unlikely to generate sufficient funds for renters to bridge the deposit gap for home purchase.

Policy development options

We evaluate the reforms using key criteria from Milligan, Phibbs et al.'s (2007) affordable housing policy evaluative framework. These criteria are effectiveness, appropriateness and efficiency. Effectiveness is defined as the extent to which low-income private renters' housing affordability outcomes are assisted under the current CRA structure. Appropriateness refers to how well (or not) the existing CRA structure correlates with the needs of the low-income clients it serves, i.e. CRA's targeting accuracy. Efficiency refers to the relative cost of achieving the outcomes of alternative CRA reforms taking into account the number of tenants assisted.

The existing CRA program

Out of 1.41 million low-income private renter units, nearly two-thirds or 933,000 are assisted by CRA. Low-income private renters eligible for CRA pay, on average, 36 per cent of their gross income in rents prior to receiving CRA. After receipt of CRA, this average housing cost burden drops to 26 per cent. CRA also plays an important role in lifting low-income private renters out of housing stress. Approximately 65 per cent of low-income CRA recipients would experience moderate to very severe stress if they did not receive CRA. This incidence plunges to 34 per cent after CRA is taken into account.

Thus, CRA plays an important part in alleviating housing stress among low-income private renters. However, there is scope to improve its performance with respect to its effectiveness and appropriateness. Approximately one in three low-income CRA recipients remain in moderate to very severe housing stress after CRA is deducted from rents. CRA also suffers from a lack of targeting accuracy. Approximately 246,000 or 18 per cent of low-income private renter income units are ineligible for CRA despite being in moderate to very severe housing stress. Another 330,000 or 23 per cent are not in housing stress, but are eligible for CRA. Overall, CRA's target error rate sits at 41 per cent.

The modelled CRA reforms

Raising the CRA maximum rate (reform 1) would result in improvements in CRA's effectiveness, reducing the number of low-income private renter income units in housing stress by 40 per cent. However, it has no impact on appropriateness; targeting accuracy remains unchanged. CRA's efficiency would also remain unchanged because the benefits of raising the CRA maximum rate for eligible CRA tenants also involves the largest increase in cost among the three reforms, amounting to \$1 billion per annum for all private renters, or \$633,000 for low-income private renters.

Resetting the CRA minimum rent thresholds (reform 2) would raise CRA's effectiveness, reducing the number of low-income private renters in housing stress by 36 per cent. While this reform would have little impact on the targeting error or appropriateness of CRA, it would incur an annual cost of \$109 million.

Changing the CRA eligibility rules to reflect housing needs (reform 3) – as defined by paying rents in excess of 30 per cent of income – would offer the greatest improvements in the effectiveness of the CRA program, reducing the number of low-income tenants in housing stress by 44 per cent. Strong improvements in appropriateness would be achieved, with targeting accuracy reaching 100 per cent. Reform 3 would also offer stronger improvements in efficiency than the other two options. It would generate annual savings of \$1.2 billion, while simultaneously reducing the number of tenants in housing stress by the largest number. While retaining overall reform cost-neutrality it would be possible to further expand the beneficiaries of this model by raising CRA caps to some degree.

Implications for future development of CRA

Overall, it would appear that changing the CRA eligibility rules (reform 3) would offer the greatest benefits from the perspectives of effectiveness, appropriateness and efficiency. However, there would be constitutional complications in implementing reform 3. It would require a constitutional basis beyond the Australian Government's narrow social security power. Nevertheless, there could be constitutionally-compliant ways of overcoming these constraints, such as using the external affairs power to effect the internationally recognised right to housing; expanding the Australian Government's constitutional powers to make provision for housing benefits; or reforming CRA as a Commonwealth-State and Territory program, with the Australian Government making grants to state and territory governments to pay Rent Assistance to eligible persons. Care would need to be taken to ensure it retains its form as a cash payment to tenants, not landlords.

There is some scope for combining two or more of the CRA reforms to enhance affordability outcomes for a larger group of low-income renters while maintaining cost neutrality. For instance, the savings generated by changing the CRA eligibility rules (reform 3) could be retained to fund an increase in the cap on the CRA maximum rate (reform 1). There also exists a case to consider combining reform options 1 and 2 – raising the CRA maximum rate and re-setting the minimum rent thresholds – as a relatively cost neutral package. The savings from reform 2 could be diverted towards helping to fund the cost of reform 1. When combined, these two reforms would help reduce housing cost burdens while achieving some improvements in targeting. These are the likely key outcomes of reform 3, which could be achieved only by overcoming constitutional limitations.

We find increases in CRA are partially absorbed into higher rents in disadvantaged neighbourhoods. In severely disadvantaged areas, nearly one-third of CRA is shifted into higher rents. CRA is more likely be captured in higher rents in markets with relatively inelastic rental housing supply, because any CRA-induced rise in rental housing consumption cannot be adequately met by new housing supply. In the absence of an adequate supply response, rents rise.

The findings raise concerns on various fronts. When CRA is captured in higher market rents, this affects not only CRA recipients, but also non-CRA eligible tenants living in disadvantaged areas. For instance, some low-income workers living in disadvantaged areas might not meet CRA eligibility requirements, but will suffer a rise in the rents they face as a result of the capitalisation effects of CRA into market rents. This would be more problematic in the case of reform 1, which would raise the CRA payment cap without restructuring entitlement so that this is expanded beyond social security recipients. Tenants residing in disadvantaged areas tend to have lower average incomes, so they face tighter credit constraints than higher income tenants. When tenants in disadvantaged areas face a rise in rents, they are less able to respond by exiting the rental sector into home ownership due to these credit constraints. Some government spending on CRA is likely to be 'lost' to capitalisation effects (in other words, the effect of a higher benefit income for a tenant recipient will be partially offset by needing to pay a higher rent). Our estimates show that raising the CRA maximum cap (reform 1) will lead to the largest 'loss' of \$27.9 million, while we can expect \$7.3 million and \$12.3 million to be 'lost' through reforms 2 and 3 respectively.

The study

This report's overarching aim is to shed light on possible cost-effective reforms of demand-side housing assistance that could improve housing outcomes for low-income renters. The main demand-side rental housing assistance for low-income renters in Australia is CRA, which is payable to eligible households renting outside the public housing sector. Various studies have suggested that, as CRA rules are currently structured, payments to low-income private renters are insufficient to achieve benchmark affordability because the real value of CRA has fallen well behind rent. Furthermore, there remains scope for improved targeting so that CRA entitlements more closely match the needs of different cohorts and accommodate the heterogeneity of housing markets across Australia. Concern has also been raised that increases in a demand-side rental housing assistance like CRA would be shifted into higher rents, rather than being captured within renter households' budgets to ease their affordability pressures.

Against this background, this report examines how demand-side housing assistance could be reformed in cost-effective ways to improve housing outcomes for low-income renters. Specifically, the report will address the following research questions:

- 1. What is the likely effect of changes in demand-side rental housing assistance on market rents?
- 2. What are the impacts of reforming CRA on low-income private renters? Specifically,
 - What is the cost-effectiveness of alternative CRA reform proposals in terms of targeting accuracy to achieve improved affordability housing outcomes and impacts on government budgets?
 - Who are the winners and losers from alternative reforms?
 - How might reforms to CRA affect decisions to transition from private renting to owning?

This research deployed a multi-stage approach that integrated an international literature review, policy engagement, econometric modelling and policy simulations. The quantitative arms of the research approach (econometric modelling and policy simulations) drew directly on the 2017 Household, Income and Labour Dynamics in Australia (HILDA) Survey, the latest HILDA Survey data available at the time of analysis. The HILDA Survey contains a comprehensive range of housing, income and other socio-demographic data facilitating population-wide conclusions on rental outcomes. It is a staple Australian data source for social science research and is Australia's only nationally representative panel dataset.

We conducted an international literature review of demand-side rental housing assistance programs in comparator countries to identify program frameworks potentially applicable to Australia. The completion of the literature review was followed by an AHURI Policy Engagement workshop. This was guided by AHURI's Policy Development Research Model, which seeks to integrate the separate processes of evidence building and policy development into one set of practices. Workshop attendees comprised a select group of policy makers from the Australian Government and state governments, as well as non-governmental representatives from areas of policy and practice related to the rental sector. The workshop provided a forum for considering ways of adapting overseas approaches for application in an Australian setting and highlighting priority reforms from a policy perspective.

Quantitative modelling was deployed in two strands. First, econometric modelling was used to estimate the likely impacts of demand-side rental housing assistance on market rents. Second, through policy simulation modelling, we predicted the impacts of potential reforms by comparing the impacts of CRA under its actual structure (2017) with impacts of three modifications to CRA. These reform designs were guided by outcomes of the policy engagement workshop. The reforms modelled were as follows:

- Raising the CRA maximum rate by 30 per cent
- · Resetting the rent thresholds to address higher levels of housing stress among income units with no children
- Changing the CRA eligibility criteria to reflect housing need, defined as low-income private renters paying rents in excess of 30 per cent of their income.

We evaluated the impacts of these reforms against criteria of effectiveness, appropriateness and efficiency, as well as highlighting its distributional impacts.

1. Introduction

- There is widespread agreement that there is scope for improvements in the main demand-side housing assistance for low-income private renters in Australia – Commonwealth Rent Assistance (CRA) – so as to improve affordability outcomes and targeting for those in greatest housing need.
- There is also some concern that increases in CRA may be partly shifted into higher rents, potentially blunting the effects of CRA reforms that seek to improve affordability outcomes.
- This report examines how demand-side housing assistance could be reformed in cost-effective ways to improve housing outcomes for low-income private renters.
- A multi-stage research framework is implemented, which integrates an international literature review, policy engagement, econometric modelling and policy simulations.

1.1 Why this research was conducted

The overarching aim of this report is to shed light on possible cost-effective reforms of demand-side housing assistance that could improve housing outcomes for low-income renters.

The main demand-side rental housing assistance for low-income renters in Australia is Commonwealth Rent Assistance (CRA), which is payable to eligible households renting outside the public housing sector. Policy and academic studies have raised concerns regarding the efficacy of the CRA system in promoting housing affordability, effective targeting and tenure security among low-income private rental tenants.

Various studies have suggested that, as CRA rules are currently structured, payments to low-income private renters are insufficient to achieve benchmark affordability (Henry, Harmer et al. 2010; Wood, Ong et al. 2011). Policy makers and commentators agree that the real value of CRA has fallen well behind rent inflation (Productivity Commission 2017; Senate Economics Reference Committee 2015). Indeed, the Productivity Commission (2017) suggested that the CRA maximum rates would need to rise by 15 per cent to restore the 2007 position and that, for low-income tenants, a larger increase would be needed to achieve this. Furthermore, as noted in the Henry Review (2010), there remains scope for improved targeting so that CRA entitlements more closely match the needs of different cohorts and accommodate the heterogeneity of housing markets across Australia¹. Generally, since no conditions are imposed on landlords of recipient tenants, CRA fails to address concerns over service quality and tenure insecurity in Australia's lightly regulated private rental market (Hulse, Milligan et al. 2011).

On the other hand, because CRA is payable to the tenant, it is a 'portable subsidy' that may facilitate more choice in terms of renting in preferred locations as compared to public housing. Aspirations to encourage greater mobility of low-income households has underpinned large-scale experiments towards extending tenant-based subsidies to public housing residents, such as the Moving to Opportunity and Gautreaux programs in the US (Rosenbaum 1995; Katz, Kling et al. 2001). The Productivity Commission (2017) has also advocated CRA extension to tenants in public housing (in tandem with rents set at market-equivalent levels).

Some international studies have found that a significant share of increases in demand-side rental housing assistance is in fact shifted into higher rents, rather than being captured within renter households' budgets to ease their affordability pressures (Laferrere and Le Blanc 2004; Viren 2013). This report will, for the first time, empirically estimate the share of CRA that is shifted into rental prices (and therefore captured by landlords), versus the share that accrues to recipient renters in reducing their net housing costs in Australia. If CRA increases are, to a significant degree, captured in the form of higher market rents, these 'rent effects' will blunt the effect of reforms that, in this way, seek to improve affordability.

Against this background, this report examines how demand-side housing assistance could be reformed in cost-effective ways to improve housing outcomes for low-income renters. Specifically, the report will address the following research questions:

What is the likely effect of changes in demand-side rental housing assistance on market rents?

- 1. What are the impacts of reforming CRA on low-income private renters? Specifically,
- 2. What is the cost-effectiveness of alternative CRA reform proposals in terms of targeting accuracy to achieve improved affordability housing outcomes and impacts on government budgets?
 - Who are the winners and losers from alternative reforms?
 - How might reforms to CRA affect decisions to transition from private renting to owning?

The rest of this introductory chapter will establish the policy and academic context within which the report's analysis is situated. Section 1.2 will set out the current rental housing assistance policy context in Australia. Section 1.3 outlines the research method applied to the rest of this report.

¹ Albeit that the Review expressly rejected the possibility of regionally varying CRA rates - see Section 3.3.1.

1.2 Policy context

Housing subsidies are simply defined as 'financial and other incentives to reduce the cost of housing' (Yates 2012: 397). Such assistance may be explicit or implicit, depending on whether the cost is accounted for as 'on budget expenditure'. Measures of this kind are commonly classified according to whether targeted on consumers ('demand subsidies' that boost purchasing power) or on providers ('supply subsidies' that underwrite necessary development or operational expenditure).

As conceptualised by Hulse (2002: 3), there are three key points of difference between these two basic forms of support:

- 1. Objective: demand subsidies aim to increase households' capacity to meet housing charges, while supply subsidies look to lower the cost of supplying housing.
- Recipient of subsidy: demand subsidies are paid to households (or possibly to a landlord on the tenant's behalf), while supply subsidies are paid to housing financiers, developers or providers.
- 3. Portability: demand subsidies are designated to specific households and are portable between housing suppliers, while supply subsidies are tied to specific dwellings, irrespective of their occupier.

Australia has two main rental housing assistance programs, both of which constitute housing subsidies. One is the system of rental rebates for tenants of the state and territory housing authorities (public housing). Eligible public housing tenants pay rents that are usually set at around 25 per cent of assessable household income. The difference between this amount and the market rent for the property they occupy is an in-kind subsidy that accrues to the renters. The other program is CRA. CRA-entitled tenants are those renting from private landlords, community housing providers or Indigenous housing organisations, paying more than a minimum rent threshold, and qualifying for another social security payment. This covers all pension, benefit and allowance recipients along with wage-earning families with dependent children and students at home who receive more than the base rate of Family Tax Benefit Part A (Department of Human Services 2017). As further elaborated in Section 3.3.1, the CRA formula rebates 75 cents per dollar of rent paid above a minimum rent threshold, until a maximum CRA rate is reached.

CRA is paid as a cash supplement to income support. Hence, it is paid directly to eligible private renters and is therefore classed as a demand-side subsidy. Another important CRA feature is that the recipient's income does not directly affect the level of CRA received. However, receipt of an income support payment (including Family Tax Benefit (A)) is dependent on the recipient's level of assessable income, with CRA then contingent on receipt of such income support payments. Receipt of CRA is thus indirectly dependent upon assessable income.

CRA minimum rent thresholds and maximum rates by income unit type are specified in Table 1 below. We set out the most recent thresholds and rates at the time of writing of this report (March 2020), as well as the thresholds and rates applicable in September 2017 as the empirical analysis in this report relies on the 2017 HILDA Survey and therefore applies the September 2017 parameters. However, the structure of CRA payments has remained unchanged for years.

As shown in Table 1, the thresholds and rates vary according to a recipient's single or partnered status, the number of children, and whether accommodation is shared with others. Among income units with no children, the minimum rent and maximum rent thresholds are highest for couples living together at \$192.20 and \$359.40 respectively. Singles and couples living separately have lower thresholds.

For income units with children, the minimum rent threshold is higher for couples (\$230.58) than singles (\$155.82), regardless of the number of children. However, the maximum rent threshold rises according to the number of adults and children in the income unit, from \$364.14 among sole parents with one to two children to \$465.97 for couples with three or more children.

Table 1: CRA fortnightly rates and thresholds, by income unit type, as at 20 September 2017 and 20 March 2020

(a) 20 March 2020

Recipient status	Rent threshold (\$ pf)	Minimum rent for maximum CRA (\$ pf)	Maximum rate (\$ pf)
No children			
Single	\$124.60	\$310.73	\$139.60
Single sharer	\$124.60	\$248.69	\$93.07
Partnered (combined rate)	\$201.80	\$377.27	\$131.60
Member of a couple - illness separated couple, respite care couple or partner imprisoned	\$124.60	\$310.73	\$139.60
Member of a couple temporarily separated	\$124.60	\$300.07	\$131.60
With children			
Single 1-2 children	\$163.52	\$382.29	\$164.08
Single 3+ children	\$163.52	\$410.67	\$185.36
Couple 1-2 children	\$241.92	\$460.69	\$164.08
Couple 3+ children	\$241.92	\$489.07	\$185.36

(a) 20 September 2017

		Minimum rent for	
	Rent threshold	maximum CRA	Maximum rate
Recipient status	(\$ pf)	(\$ pf)	(\$ pf)
No children			
Single	\$118.60	\$295.93	\$133.00
Single sharer	\$118.60	\$236.82	\$88.67
Partnered (combined rate)	\$192.20	\$359.40	\$125.40
Member of a couple - illness separated couple, respite care			
couple or partner imprisoned	\$118.60	\$295.93	\$133.00
Member of a couple temporarily separated	\$118.60	\$285.80	\$125.40
With children			
Single 1-2 children	\$155.82	\$364.14	\$156.24
Single 3+ children	\$155.82	\$391.21	\$176.54
Couple 1-2 children	\$230.58	\$438.90	\$156.24
Couple 3+ children	\$230.58	\$465.97	\$176.54

Source: Department of Human Services (2017; 2020)

Government expenditure on CRA is substantial, amounting to \$4.44 billion in 2018-19, though this has remained more or less constant in real terms in five years. As reported in Table 2, the bulk of CRA expenditure is logged in New South Wales (NSW), Victoria and Queensland. In 2018-19, for example, CRA expenditure in NSW totalled \$1.4 billion, more than four times the \$389 million spent in Western Australia (WA). This reflects differences in states' populations, rather than housing costs. The average amount of CRA expenditure per income unit has remained roughly the same at around \$3,000 to \$3,500 over time and across states and territories.

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUS
2018-19									
Total (\$ million)	\$1,423	\$971	\$1,143	\$334	\$389	\$123	\$23	\$33	\$4,439
Per income unit (\$)	\$3,484	\$3,425	\$3,462	\$3,417	\$3,411	\$3,523	\$3,353	\$3,268	\$3,452
N income units ('000)	408	283	330	98	114	35	7	10	1,286
2017-18									
Total (\$ million)	\$1,427	\$1,000	\$1,168	\$345	\$395	\$128	\$23	\$35	\$4,520
Per income unit (\$)	\$3,472	\$3,422	\$3,460	\$3,418	\$3,411	\$3,529	\$3,347	\$3,257	\$3,447
N income units ('000)	411	292	338	101	116	36	7	11	1,311
2016-17									
Total (\$ million)	\$1,450	\$1,018	\$1,177	\$338	\$385	\$128	\$23	\$36	\$4,554
Per income unit (\$)	\$3,415	\$3,361	\$3,405	\$3,359	\$3,348	\$3,466	\$3,275	\$3,237	\$3,390
N income units ('000)	425	303	346	101	115	37	7	11	1,343
2015-16									
Total (\$ million)	\$1,471	\$1,026	\$1,176	\$341	\$366	\$127	\$23	\$37	\$4,568
Per income unit (\$)	\$3,422	\$3,362	\$3,413	\$3,363	\$3,337	\$3,470	\$3,274	\$3,219	\$3,394
N income units ('000)	430	305	345	101	110	37	7	11	1,346
2014-15									
Total (\$ million)	\$1,454	\$999	\$1,126	\$325	\$336	\$123	\$21	\$37	\$4,421
Per income unit (\$)	\$3,321	\$3,259	\$3,312	\$3,255	\$3,217	\$3,379	\$3,172	\$3,125	\$3,291
N income units ('000)	438	307	340	100	104	36	7	12	1,343

Table 2: Annual real government expenditure on CRA, 2014-15 to 2018-19, at 2018-19 price levels

Source: Total and per income unit expenditure from Productivity Commission (2020). Number of income units are authors' calculations obtained by dividing the total expenditure by per income unit expenditure.

1.3 Research methods

This research deployed a multi-stage approach that integrated an international literature review, policy engagement, econometric modelling and policy simulations. The quantitative arms of the research approach (econometric modelling and policy simulations) drew directly on the 2017 Household, Income and Labour Dynamics in Australia (HILDA) Survey, the latest HILDA Survey data available at the time of analysis. The HILDA Survey contains a comprehensive range of housing, income and other socio-demographic data facilitating population-wide conclusions on rental outcomes. It is a staple Australian data source for social science research and is Australia's only nationally representative panel dataset.

1.3.1 International and national literature review

We conducted an international literature review of demand-side rental housing assistance programs in comparator countries to identify program frameworks potentially applicable to Australia. In chapter two, our literature review presents concepts and theories of rent from different traditions in the international economics literature. It then introduces the notion of housing allowances as these apply in rental property markets. Forming the heart of the chapter, its main section analyses the housing allowance programs operating in Australia and five comparator countries: Germany, Ireland, New Zealand, the United Kingdom (UK) and the United States (US). These countries were selected because their housing systems and wider economies are, like Australia's, based on private property and market exchange and, more specifically, each has a substantial private rental sector (ranging from a 20 per cent share in the UK, to just over 50 per cent in Germany (Martin, Hulse et al. 2018)). Each country also operates one or more national programs of demand-side assistance for renters, with different degrees of variation from Australia's CRA; there is also variation around the degree to which rents are regulated.

1.3.2 Policy engagement

The completion of the literature review was followed by an AHURI Policy Engagement workshop. This was guided by AHURI's Policy Development Research Model, which seeks to integrate the separate processes of evidence building and policy development into one set of practices.

Workshop attendees comprised a select group of policy makers from the Australian Government and state governments, as well as non-governmental representatives from areas of policy and practice related to the rental sector.

The workshop provided a forum for:

- Discussing findings from the international and national literature review
- Considering ways of adapting overseas approaches for application in an Australian setting
- Identifying key reforms that might be most relevant to the Australian policy context
- Highlighting priority reforms from a policy perspective.

At the conclusion of the workshop, attendees had identified, and agreed on, three broad types of reforms to be modelled in subsequent stages of the project that would be useful from a policy perspective. The workshop outcomes are reported in chapter five to set the policy context for the three reforms that are modelled and reported subsequently in that chapter.

1.3.3 Econometric modelling

Econometric modelling was deployed to estimate the likely impacts of demand-side rental housing assistance on market rents in chapter three. Econometric modelling is an established method for gauging relationships between an outcome (such as the rent paid by a household) and a series of predictors (such as household composition, household income, location of residence, amount of demand-side rental housing assistance received). While econometric modelling techniques vary significantly across studies and disciplines, it is a respected and valuable method of estimating the size and direction of the association between a predictor and an outcome, while holding other predictors constant. By applying econometric modelling, we sought to gauge the share of demand-side rental housing assistance that could potentially be capitalised into market rents while controlling for other potentially confounding predictors.

1.3.4 Policy simulation modelling

Through policy simulation modelling, we predicted the impacts of potential reforms by comparing the impacts of CRA under its actual structure (2017) in chapter four, with impacts of three modifications to CRA in chapter five. We exploited micro-simulation modelling technology that has been successfully deployed in previous AHURI projects to predict the distributional and budgetary implications of a range of housing policy reforms relevant to the rental sector. These have included the recommendations of the Henry Review on a savings income discount reform to negative gearing and CRA (Wood, Ong et al. 2011), extension of CRA to public renters (Dockery, Hulse et al. 2008), and provision of secure leases to families in greatest need of tenure security (Wood, Cigdem-Bayram et al. 2017).

Three alternative CRA reform designs were coded within computing software so their impacts could be compared with the actual CRA design. These reform designs were guided by outcomes of the policy engagement workshop and the design parameters are described in chapter five.

1.3.5 Relative price analysis

We implemented a relative price analysis to gauge how the reforms would alter the ratio of the net cost of renting to owning. The net cost of owning is a private renter's rent less CRA entitlement. This was compared with an imputed cost of owning for each renter. That is, we estimated what each renter's cost would be *if* they were owning. The net cost of owning is the annual after-tax cost of owning a property, also known as the user cost. The ratio of the cost of renting to cost of owning provided a relative price of renting to owning, a key measure used in housing economics when analysing tenure choice decisions (Hendershott, Ong, et al. 2009; Wood, Smith et al. 2013).

2. Demand-side rental housing assistance: existing research, concepts and examples in comparator countries

- Rent can be conceptualised as relating to the dual quality of housing: firstly, a return on the capital cost of the structure, and secondly, a payment associated with the right to occupy land owned by another party.
- The extent to which households' incomes—and increases in incomes—are captured by rent liabilities is the outcome of tenants and landlords operating from positions of different elasticity, and a wider ranging political struggle over housing production and regulation.
- Housing allowances take different forms; one important set of distinctions deriving from the relative priority of housing policy and social security policy objectives. Australia's CRA is properly seen as more strongly shaped by the latter priority.
- In comparison with at least one of the comparator countries covered by our analysis (Germany, Ireland, the United Kingdom (UK), the United States (US) and New Zealand), Australia's CRA regime is distinctive in terms of being (a) restricted to certain categories of renters and generally excluding low waged employees; (b) regionally invariant; and (c) available by right, rather than cash limited.

This chapter examines some basic concepts about rent and demand-side rental assistance. It also reviews rent assistance programs in comparator countries—all of which have reformed their programs—to inform the design of reforms within the Australian context.

The chapter is structured as follows. Following this introduction, and mainly to contextualise housing allowance models, we first present concepts and theories of rent from different traditions in the economics literature in section 2.1. Next, we introduce the notion of housing allowances as these apply in rental property markets in section 2.2. Forming the heart of the chapter, section 2.3 analyses the housing allowance programs operating in Australia and five comparator countries: Germany, Ireland, New Zealand, the UK and US. These countries were selected because their housing systems and wider economies are, like Australia's, based on private property and market exchange and, more specifically, each has a substantial private rental sector, ranging from a 20 per cent share in the UK, to just over 50 per cent in Germany (Martin, Hulse et al. 2018). Each also operates one or more national programs of demand-side assistance for renters, with different degrees of variation from Australia's CRA. There is also variation around the degree to which rents are regulated. Finally, we explore evidence of the market impacts of demand-side subsidy payments.

2.1 Rent concepts and theories

In the housing system, 'rent' generally refers to a payment made for a periodic right to occupy premises as a residence, particularly under the terms of a lease. On closer inspection, rent can be regarded as a payment for two things: the right to use the building, and the right to occupy that portion of the globe—that is, the land—on which the building sits.

A building is the product of materials and labour, so that part of rent can be conceived of straightforwardly as the return on the capital invested in the building's construction. This asset produces shelter—of a quality that depends on the construction and maintenance of the building—which is consumed by a tenant, and thereby earns its return.

Land, however, is never made: it is just there, without anyone putting any effort into it. In classical political economy and its more critical successors, including Marxist political economy, this makes land a special kind of asset, and makes the part of rent relating to land—'ground rent'—of special concern. As observed by Adam Smith (2007), "The landlords, like all men love to reap where they never sowed":

"The labourer must give up to the landlord a portion of what his labour either collects or produces. This portion, or what comes to the same thing, the price of this portion, constitutes the rent of land." (Smith 2007 [1776]: 43)

In Smith's analysis, rent is "naturally a monopoly price", being "the highest which the tenant can afford to pay", although "sometimes... the liberality, more frequently the ignorance, of the landlord makes him accept somewhat less" (2007 [1776]: 117-118). Ricardo was drawn to differences in rents, reflecting locational advantages relative to the most marginal land, that might otherwise return to tenants, but which would instead accrue to landlords. For Ricardo, the key implication was that if governments and tenants contrived to raise returns to tenants—such as through tariffs on corn—landlords would claim the benefit through higher rents (Ricardo, 1821: 63).

The classical critique of rent as an extractive claim on production was taken to its most trenchant level by Marx, who saw landlords' rent-taking as having "origins in robbery" and ascribed a similarly exploitative character to relations between capital and labour.

"The rent of land is established as a result of the struggle between tenant and landlord. We find that the hostile antagonism of interests, the struggle, the war is recognised throughout political economy as the basis of social organisation." (Marx 2000 [1932]: 2)

Marx would go on to elaborate various categories of rents under capitalism—differential rents, monopoly rents and absolute rents, this last being extracted by landlords acting as a class to withhold land from development— with different effects on prices and capitalist accumulation (Ward and Aalbers 2016).

This enlargement of the scheme of rents, however, also meant that for the ensuing century most Marxist analyses of rent were about extractions from capitalists' profits, rather than questions of extractions from consumption by urban tenant households and communities (Harvey 1974). When Harvey highlighted this question in the 1970s, he proposed that it could be answered in terms of 'class-monopoly rent', a kind of absolute rent that derives from the unequal way in which contemporary cities are built. As Harvey put it, "the man-made resource system created by urbanisation is, in effect, a series of man-made islands on which class monopolies create absolute scarcities" (1974: 249). In his conception, these may be manifested in low-income, predominantly rental neighbourhoods with little new investment, while higher income, predominantly owner-occupied neighbourhoods maintain exclusionary planning rules and tax regimes that facilitate holding property in relatively unproductive owner-occupation.

According to Harvey, as in Marx's early observation, the struggle over rent is a political contest. This contest is conducted through state institutions that shape housing investment (including public housing) and the legal rights of landlords and tenants (including rent controls), and through the constitution of communities and neighbourhoods.

While Marx developed the classical critique of rent into a persistent feature of capitalism's extraction of value, neoclassical economics developed an analytical approach that largely denied any special status to land and the return it commands (Ryan-Collins, Lloyd et al. 2017; Mazzucato 2018). This approach conflated land with capital and considered value in terms of subjective preferences—or utility—rather than the effort or labour put into producing a thing. In particular, neoclassical economics focused on utility at the margin: that is, how utility changes in incremental amounts, and how these relate to changes in the price of a thing and the quantity in which it is supplied. Marshall (1890) was a key proponent of this approach, developing the concept of 'elasticity' to describe to the responsiveness of demand for a thing to a change in price:

"The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price." (Marshall 1890: 8.1)

This concept has become known as the 'price elasticity of demand', and compared with other goods, housing is regarded as having a fairly elastic demand. As Marshall noted, "there seems always to be an elastic demand for house-room, on account both of the real conveniences and the social distinction which it affords" (Marshall 1890: 90). Marginalist analysis has also developed the complementary concept of the 'price elasticity of supply', referring to the responsiveness of supply to a change in price. Housing is generally considered to be less than perfectly elastic, primarily because most suppliers of housing – including landlords – have only one unit of housing at hand and it is difficult to convert it into more.

The relative price elasticities of transacting parties have been used to analyse the incidence of transaction-based taxation, the reasoning being that the more price elastic party can push the cost of the tax onto the less price elastic party (Davidoff and Leigh 2013). So, in the case of stamp duty levied by a state on housing buyers, the cost of the tax is, in fact, borne by the vendor in the form of a lower price than they would otherwise have received. This is because the buyer, faced with the prospect of paying the duty, can marginally adjust the quality or location of the housing they will buy, giving them room to move compared with the vendor who can only sell the housing they have on hand, and they will either sell the whole of it or not. This analysis suggests that where there is a housing transaction and a state proposes to add to (rather than take from) the money on the table, the relatively inelastic supplier will take the additional money in a higher price. Such an interpretation is often applied in critiques of first home owner grants (Daley and Coates 2018: 136; Eslake 2013).

This assumes, however, that the additional money on the table can only be spent on housing. This is, in fact, a variable feature of demand-side assistance programs, some of which are designed to ensure that the assistance can only be spent on the specified transaction (such as the First Home Owners Grant), while others pay cash on which other goods and services may make a competing claim. Australia's CRA is such a cash payment, but examples of both types of design can be found in rental housing allowance programs internationally.

2.2 Rental housing allowances in principle

Demand-side housing subsidies are paid to housing consumers to boost their purchasing power. Since the 1980s or so, demand-side subsidy programs have tended to increase relative to supply-side subsidies, reflecting a dominant political and policy maker view that "private markets [are] inherently more efficient ... that housing allowances provide better choice of housing for low-income households, and [are] a more flexible policy instrument that can be better targeted than supply-subsidies" (Hulse 2002: 5).

While such assistance may be made to home buyers in the form of low-interest loans or grants, the focus here is on allowances provided as a form of income support "tied in some way to housing consumption" (Hulse 2002: 5). This is most often rental housing, but in some systems, it may also include owner-occupied housing.

As Kemp (2007a: 2) indicates, access to these allowances is always qualified, more or less directly, by the recipient being of low-income and, very often, by their receiving other forms of income support (by contrast, home-buyer grant programs often lack income criteria, and qualify access by prior property ownership). In some systems, the amount of other income support implicitly allows for at least part of the recipient's housing costs, with an additional payment available for those with high housing costs (such as Australia's CRA). In other systems, an explicit allowance for housing costs is included in the recipient's income support.

The amount of housing allowance may be a fixed sum, reflecting some objective standard of housing cost (such as the median rent, or a fraction of the median, or a certain percentile rent), or it may vary in relation to the recipient's actual housing costs. Where it varies, the housing allowance may operate as a co-payment that covers a certain proportion of the recipient's housing costs (such as 75 cents in every dollar of rent), or it may vary so that the recipient's contribution from other income is kept at certain proportion (such as 30 per cent of income). In the former case, the amount of the payment varies only in relation to housing costs (and not changes in a recipient's income); in the latter case, changes in the recipient's income will also affect the amount of the payment. In this report, we summarise these variations in allowances by referring to three basic models: fixed sum, co-payment, tenant income-related contribution models.

Rental housing allowance schemes also routinely include mechanisms to prevent 'over-consumption'. These may take the form of:

- Housing expenditure ceilings: the allowance is not paid where the housing costs exceed a specified amount, often expressed in terms of a measure of rental stress
- Housing allowance maxima (caps): the allowance is capped at a certain amount of housing costs and any expenditure in excess must be covered by the recipient from other income
- Administrative rules: relating to the size or quality of the accommodation.

The first and second of these may also function "to limit the possibility that housing allowances may be capitalised into higher rents (or house prices)" (Kemp 2007a: 9).

At least in part, the specific configuration of a country's housing allowance system may reflect the relative priority of housing policy objectives versus social security goals. From the former perspective, their prime purpose is "to enable recipients to raise their level of housing consumption above that which they would otherwise be able to afford..." (Kemp 2007a: 5). Where this is the priority, the housing allowance system may be expressly linked to other housing policy measures, such as requirements that properties be inspected and meet certain standards. From the latter viewpoint, the main aim is to enable the household to retain sufficient income after housing costs to avoid poverty.

2.3 Rent assistance in Australia and select comparator countries

In this section we review how Australia and five comparator countries—Germany, Ireland, New Zealand, the UK and US—provide rental housing subsidies through cash payments to households (or, in some cases, attached to households but paid directly to landlords). Table 3 summarises the main features of each country's rent assistance program, and very briefly indicates some other related policy measures, such as anti-discrimination provisions that seek to ensure equal treatment of assisted households, and regulatory measures to set or limit rents at levels other than those of the market. All these features are discussed in more detail further below.

	Structure								_		
Country	Assistance program	Paid to whom	Broad description	Model	Entitlements depend on	Mechanism to prevent over-consumption	Eligibility	Geographic scale	Rent regulation?		
Australia	Commonwealth Rent Assistance	Resident	Capped co-payment (75%)	A: Co-payment equivalent to 75% of rent	Household composition and rent	Cap on co-payment	PRS and CH tenants who are social security recipients	National	No		
Germany	Arbeitslosengeld II housing component (Unterkunftskosten)	Resident	Fixed sum, equivalent to rent for 'adequate housing'	Fixed sum	Household composition and local 'adequate housing' rent	Fixed sum	Tenants and owner- occupiers, income support recipients	Regional	Yes		
	Wohngeld		Capped co-payment	Co-payment	Household composition, household income, age of dwelling and local rents	Capped	Low-income tenants and owner- occupiers (eligibility criteria)	-			
Ireland	Rent Supplement	Resident	Tenant income-related contribution, plus top-up	Tenant income-related contribution, plus	Rent and tenant income	Not paid where rent would exceed 30% of tenant income	PRS tenants who receive social security payments	Locality	Yes		
	Housing Assistance Payment (HAP)	Landlord	Tenant income-related contribution equivalent to income-related social housing rent, plus 'top-up'	⁻ top-up	Rent and tenant income	-	PRS tenants who receive social security payments, low-income workers	Locality	_		

Table 3: Private rental housing assistance programs and their main features; Australia and select countries

	Structure								
Country	Assistance program	Paid to whom	Broad description	Model	Entitlements depend on	Mechanism to prevent over-consumption	- Eligibility	Geographic scale	Rent regulation?
New Zealand	Accommodation Supplement	Resident	Capped co-payment (70%)	Co-payment	Rent	Capped at 40 th percentile rent	PRS tenants and owner-occupiers on low incomes	Regional	No
United Kingdom	Local Housing Allowance (component of Universal Credit)	Resident	Fixed sum equivalent to lower-end rent	Fixed sum	Household composition, location	Fixed sum	PRS tenants on low incomes	Locality	No (provision for rent caps in Scotland)
	Discretionary Housing Payment		Exceptional payment to assist tenants transitioning to lower HB entitlement	Varies by local authority	Varies by local authority	Varies by local authority	PRS tenants on low incomes	_	No (provision for rent caps in Scotland)
United States	Housing Choice ('Section 8') vouchers	Landlord	Tenant income-related contribution equivalent to 30-40% of income	Tenant income-related contribution	Housing cost and tenant income	Capped at 40-50 th percentile, not paid where rent would exceed 40% of tenant income	Tenants on low incomes	Metropolitan	In some jurisdictions

Source: Authors' summary of key points in text of this chapter.

2.3.1 Australia

Australia's principal demand-side subsidy is Commonwealth Rent Assistance (CRA), which is part of the Australian Government's system of social security payments. As discussed in Section 1.2, CRA is paid with all the major social security payments—including Age Pension, Disability Support Pension, Newstart (unemployment) Allowance, and Family Tax Benefit (FTB) where paid at more than the base rate—where the recipient pays rent in excess of the relevant threshold, except public housing tenants. Tenants living in private rental housing (including lodgings and share-housing arrangements), boarding houses, residential parks, retirement villages, community housing and Indigenous housing may be eligible. The connection to social security payments and FTB reflects a constitutional limitation: the Australian Government is empowered to make certain social security payments only, which do not include rent or other housing payments in their own right.²

Recipients receive CRA at the rate of 75 cents for every dollar of rent paid above certain thresholds, subject to certain maximum rates (sometimes referred to as caps). These imply rent amounts (referred to in Table 2 as 'minimum rent for maximum RA') where, if exceeded, the recipient would have to pay all of the excess amount themselves. The lower thresholds and the maximum rates vary by household composition, but unlike most other countries' programs, not by location: the same thresholds and maximum rates apply Australia-wide. The thresholds and maximum rates have increased over time, but are indexed to Consumer Price Index (CPI), so where rents have increased more than CPI, the real value of CRA has not kept up.

In 2010, when it was examined by the Australia's Future Tax System Review (AFTSR or the Henry Review: Henry, Harmer et al. 2010), CRA for a single person hit its maximum rate at the 10th percentile rent for one-bedroom properties (2010: 602). At the time of writing, the minimum threshold for a single person was \$124.60 per fortnight, the maximum rate at a rent of \$310.73 per fortnight. The average rent for single person households in the private rental sector in 2017-18 was \$632 per fortnight (ABS Cat 4130.0). The co-payment structure means that, unlike the recipient's main social security payment, the amount of CRA is not reduced if the recipient earns additional income—unless the recipient starts to receive so much other income that they lose their social security payment altogether, in which case CRA is withdrawn too.

There are few housing-related strings attached to CRA: the tenant is not obliged to restrict themselves to certain rent levels (although the capped co-payment structure of CRA encourages them to rent cheaply), and there are no obligations regarding the standard or fitness of the property (aside from those generally provided for by state-level residential tenancies legislation). To claim CRA, a tenant must provide evidence of their current rent, which will usually be furnished by the landlord or agent. However, if it is a new tenancy and the rent can be evidenced via a copy of the tenancy agreement, the landlord or agent may not be aware that the tenant has applied for CRA.

CRA was originally introduced in 1958 as a 'supplementary allowance' paid to single pensioners living in private and public rental housing. In 1982, CRA was withdrawn from new public housing tenants (Field 1983) but was otherwise extended to recipients of other payments over the years. Through the 1980s and 1990s, both eligibility and payment rates grew substantially, particularly for households with children as a poverty-alleviation measure (Prosser and Lee 1994). In the mid-1990s, CRA expenditure surpassed Commonwealth-State Housing Agreement grants to housing authorities. In the 2000s, CRA also became a significant subsidy source for community housing providers and Indigenous housing, who reformed their income-related rent formulas to maximise and capture CRA.

² Constitutional issues in CRA reform are discussed in more detail in chapter 5.

Recently, CRA has featured in a number of reform proposals, mostly directed at using CRA as an instrument for reforming social housing finance, rather than radically changing CRA itself. The 2010 Henry Review (Henry, Harmer et al. 2010) judged that CRA performed well in terms of equitable provision, minimal harm to work participation incentives, and the enabling of housing choice. Although, it indicated that the caps had been allowed to drift too low. To that end, the Henry Review recommended that the caps be set at the 25th percentile rent for all capital cities combined (the Henry Review expressly recommended against regional variation), and thereafter indexed to the rents component of CPI. Also, in line with its recommended that CRA eligibility should not be satisfied by receipt of FTB at more than the base rate, and that the CRA caps should not vary according to the number of children in the household.

The Henry Review regarded the system of income-related rents in social housing much less favourably, and recommended that CRA should be extended generally to social housing tenants, and social landlords should charge market rents. The Henry Review acknowledged (without specifying) that "carefully targeted transitional arrangements" (2010: 614) would be needed to prevent some existing tenants experiencing housing stress and undue pressure to relocate. It was also judged that income-related rents could be acceptable in locations where the market rent is very high (such as mining boom towns), or there is no real market (such as remote Indigenous communities).

Over and above its recommendations on CRA, the Henry Review recommended a new additional housing payment for 'high-needs' tenants, payable by the Australian Government directly to eligible tenants' landlords. The amount of this payment would vary according to the level of the tenants' needs, reflecting the higher cost of housing them and providing social housing landlords with an incentive to provide for them. Although it specified social housing landlords as the 'focus' of this new payment, the Henry Review also left open the prospect that it might be paid to private landlords too.

None of the Henry Review recommendations regarding CRA were implemented. Similar recommendations, however, were subsequently made in the 2015 report 'A New System for Better Employment and Social Outcomes' (the McClure Review), though it criticised CRA as being "targeted poorly" (2015: 59).

More recently, the Productivity Commission (PC) (2017) has acknowledged that the value of CRA has fallen well behind rent inflation, suggesting that the CRA maximum rates would need to rise by 15 per cent to restore the 2007 position³ and that, for low-income tenants, a larger increase would be needed to achieve this. Echoing the Henry Review, the PC also advocated the extension of CRA eligibility to public housing tenants alongside the charging of market rents. The Australian Council of Social Service (ACOSS) advocated increasing maximum rates of CRA by 30 per cent, at an estimated cost of \$1.2 billion, and then indexing the maximum rates to the rent component of CPI (ACOSS, 2020). The Grattan Institute (Daley, Duckett et al. 2019: 74) advocated an even larger increase of 40 per cent, then indexing to rents.

Aside from CRA, there are small-scale state-level rental housing assistance programs in some jurisdictions. Such private rental housing assistance (PRA) payments are loans or cash paid to low-income earners enabling their access to rental housing. Some 128,000 people were assisted via PRA allocations in 2016-17, most commonly through a bond loan (AIHW 2018); aid that could be critically important in helping the recipient to avoid homelessness. As a form of housing policy intervention, PRA is a means of reducing or deflecting demand for social housing. From a conceptual viewpoint, such activity neatly embodies action to address market failure; in other words, it enables the efficient operation of the private rental housing market.

³ Although this calibration refers to the rents component of CPI which relates to rents paid by *all* tenants – and since this includes social renters for whom rent payments are limited by very low incomes, the rate of increase of *market* rents will generally be larger than that indicated by the CPI rents index.

Perhaps of most significance among PRA programs is the recently introduced NSW Government's Rent Choice program, which provides subsidies for eligible persons in certain client groups to rent in the private sector. The program is limited to properties where the rent is not more than the sum of the tenant's CRA entitlement and 50 per cent of the rest of their household income. The initial amount of the subsidy is equivalent to the different between the rent and the sum of the tenant's CRA and 30 per cent of their other income, with the subsidy tapering off over a period up to three years.

Other than those offered by public housing agencies and community housing providers, Australian rents are set by the market, subject to light regulation under the residential tenancies legislation of each state and territory. While the details differ, the general approach is to allow rent increases during tenancies, but with provision for tenants to dispute increases excessive to market rates. None of the states and territories regulate rents for new tenancies. Historically, states have had heavier rent controls from time to time, particularly during and immediately after the Second World War.⁴

2.3.2 Germany

Germany has two demand-side housing subsidies. The larger of the two is the housing component of Germany's unemployment benefit for long-term unemployed or underemployed persons—*Arbeitslosengeld II*—the present form of which dates from 2005. For renters, the housing component (*Unterkunftskosten*) of *Arbeitslosengeld II* is a fixed sum that covers the rent for an 'adequate home' according to local rent benchmarks for differently sized households. These benchmarks are determined by local governments, which participate in the administration and funding of the payment and so have an interest in not being too generous. As it is, some regions are less generous than others (Kofner 2008). Tenants who pay rents above the benchmark have to cover that part of the rent from other parts of their income.

Germany's other housing subsidy is Wohngeld, a longstanding program of housing payments that used to be more extensive, but was largely displaced by *Arbeitslosengeld II*. *Wohngeld* is a housing payment to low-income persons (but not recipients of *Arbeitslosengeld II*), whether owner-occupiers, private tenants or social housing tenants. It is calculated according to a complex formula that factors in household size, household income, actual housing costs, age of dwelling and local market rent levels. In 2016, eligibility for *Wohngeld* was expanded significantly, but it remains a narrower program (approximately 900,000 recipient households) than *Arbeitslosengeld II* (approximately 3.2 million households as at 2017) (Kofner 2018).

Germany has a longstanding system of rent regulation, and in recent years both the federal and state-level governments have sought to tighten regulation further. Rent increases during a tenancy are limited according to changes in a 'local reference rent'. Presented by each municipality in an instrument known as a *Mietspiegel*, this local reference rent averages rents under new and existing tenancies in comparable properties over the past four years. This means the *Mietspiegel* rent is not a current market rent, but describes the long-term trend of local rents, with an emphasis on historic rental costs. Until recently, rents at the commencement of a tenancy were set by the market. However, in 2015, the Federal Government empowered state-level governments to implement a 'rent brake' (*Mietpreisbremse*) in areas with tight housing markets. This rent brake ensures that new rents do not exceed the *Mietspiegel* rent by more than 10 per cent (Kofner 2018). In 2019, Berlin's housing minister announced that the city intended to legislate for a five-year rent freeze on all existing private sector housing (DW 2019).

⁴ A very few premises in New South Wales remain subject to rent controls imposed by the Landlord and Tenant Amendment Act 1948 (now repealed, but given continuing effect at Schedule 2 of the Residential Tenancies Act 2010).

2.3.3 Ireland

Ireland is in the process of reforming its demand-side subsidies. Introduced in 1979 and administered by the Department of Employment Affairs and Social Protection, Rent Supplement (RS) is historically the main form of assistance for low-income private renters. RS is now being reoriented as a narrower program of short-term assistance. Housing Assistance Payment (HAP)—a relatively new program administered by local authorities —is intended to become the main form of demand-side subsidy.

Rent Supplement remains the larger program of assistance, but new claims are restricted. Existing recipients of RS are private tenants not in full-time employment and who have satisfied a means test. The calculation of RS is complex. The amount paid is the difference between the rent and the sum of a fixed minimum contribution (which varies by household composition); and a contribution from the recipient's own means (which is the difference between the Supplementary Welfare Allowance rate and the recipient's household income, with certain sources of income disregarded). RS is also subject to rent limits. These limits vary by household composition and locality, such that generally it will not be paid where the rent is above the limit. However, some discretion is afforded by the by the Department of Employment Affairs and Social Protection to pay RS where the limit is exceeded, with the tenant covering the excess amount from other parts of their income.

RS was historically paid for an indeterminate duration, but under recently introduced arrangements, recipients of 18 months or more are instructed to lodge a claim with their local authority under the HAP scheme. New RS claims are restricted to persons who: were renting affordably when they commenced their tenancy, but can no longer afford the rent because of a change in circumstances of not less than six months; had previously received RS in the 12 months prior to the present claim; or were living in accommodation for the homeless but ineligible for social housing.

Phased in nationally from 2014, HAP is part of a reform of local authorities' housing assistance away from direct provision of social housing to subsidisation of private market provision. Persons eligible for social housing support —those who meet income criteria and have no suitable alternative accommodation—are also eligible for HAP.

In seeking a suitable tenancy, HAP-eligible persons are limited to rent maxima that vary by household size and locality. Landlords are prohibited from discriminating on the grounds of HAP receipt status. Where a landlord agrees to offer a tenancy, they and the HAP-eligible person enter into a residential tenancy agreement, but the local authority pays the rent, with the tenant paying a contribution to the local authority. The contribution is calculated according to the local authority's income-related rent scheme for social housing, so the tenant must keep the local authority informed of changes in income. If the tenant does not pay their contribution, the local authority withholds payment to the landlord. The local authority also inspects HAP-subsidised properties for compliance with condition standards. HAP-assisted tenants are expected to remain in their tenancies for two years, and if they move before that, may not be eligible for a new HAP allocation.

As noted, there are local maximum rents for HAP, but local authorities may allow these maximums to be exceeded, with the tenant required to cover the excess (i.e. their contribution to the local authority, plus the 'top-up' to the landlord), subject to a limitation that this amounts to no more than 30 per cent of household income. The housing advocacy organisation, Threshold, reports that the maximums are in fact often exceeded (2018). At the end of 2018, approximately 13 per cent of registered private sector tenancies were HAP-assisted —and it is estimated that this share will rise to one quarter by 2021 (Threshold 2018).

Rents in Ireland are set by the market, subject to some restrictions. Under Ireland's Residential Tenancies Act 2004, tenants may dispute a rent that is excessive to the market both at the commencement of a tenancy, and when rent is increased during a tenancy. Following recent amendments to the Act, rent increases in areas declared to be 'rent pressure zones' are capped at four per cent per annum. To be designated a rent pressure zone, average rents for the area must be above the national average (for areas outside Dublin, the 'national' average comparator is calculated excluding Dublin), and annual rate of increase must be seven per cent or more for four of the last six quarters. Currently, 42 local electoral areas, covering most of urban Ireland, are rent pressure zones.

2.3.4 New Zealand

New Zealand's Accommodation Supplement (AS) is a tenure-neutral payment paid to low-income households. The main eligibility criterion is an income test. Unlike Australia's CRA, AS is not tied to receipt of another social security payment. However, 80 per cent of AS recipients do, in fact, receive such payments (NZ MSD 2017).

AS is paid as a co-payment for rents over a threshold, at the rate of 70 cents in the dollar, subject to a cap. The thresholds are about 25–30 per cent of the main social security payment rate for the recipient's household composition, with some variation according to tenure (thresholds are higher for owner-occupiers) and the type of other income received. The caps vary by household composition and area, with New Zealand divided into four areas for this purpose. In 2018, the caps were increased in real terms (for the first time since 2005) to approximate 40th percentile rents in each of the four national sub-areas (McAllister, St John et al. 2019).

When introduced in 1993, AS was also paid to social housing tenants as part of a reform of social housing finance (Thorns 2006). This involved a shift from income-related rents, but proved short-lived, with income-related rents for Housing NZ tenants restored from 2000. Tenants of community housing providers that are not contracted to provide income-related rents are eligible for AS. For the last decade, the number of recipients has hovered around 290,000, of whom about 90 per cent rent (as tenants or boarders); on this basis, McAllister, St John et al. (2019) estimate 25–30 per cent of households renting receive AS.

Rents in New Zealand are set by the market. Under the Residential Tenancies Act, a tenant may dispute a rent increase during a tenancy where it is excessive to the market rent. There is no restriction on rents at the commencement of tenancies.

2.3.5 United Kingdom

The UK has a longstanding program of demand-side assistance for social and private tenants known as Housing Benefit. Historically, Housing Benefit was unusual—it was a substantial payment administered separately from other income support payments, which did not include an implicit housing cost component, and was paid directly to an eligible person's landlord. However, Housing Benefit has been undergoing fundamental reforms for some years. From 2006, the component of the program relating to private tenancies was reformed according to a new entitlement calculation methodology termed Local Housing Allowance (LHA); and the payment made to private tenants themselves, not their landlords.

Now, as a central component of post-2010 social security reforms, the UK is merging Housing Benefit and other payments into a compendium social security payment for working age adults, Universal Credit (UC). Since 2018, all new claimants for housing assistance have been required to claim UC, which includes a component for housing costs, calculated according to the LHA formula. As such, demand-side assistance for social housing tenants is converging on that for private tenants, with this housing subsidy also becoming payable to social housing tenants, not social housing landlords. According to Hickman, Kemp et al. the specific objective was to "help tenants to become more effective money managers and thereby be better able and more incentivised to find paid work" (2017: 1110).

LHA is a fixed sum meant to be equivalent to the rent for accommodation appropriate to the recipient's age and household size. For single persons aged under 35 years, shared accommodation is considered appropriate, so LHA is restricted to a rate calibrated according to the house-share market.

Originally set with respect to median local rents, LHA was re-scaled in 2013 equivalent to the 30th percentile of the local market. Subsequently, this ceiling was first indexed to CPI, then up-rated by 1 per cent per annum, and then – from 2016 – frozen as an austerity measure (Wilcox 2017). As a result, by early 2020 LHA had been substantially devalued across most of the country. Even by 2018, LHA rates remained at the 30th percentile level in less than 10 per cent of the UK's local housing market areas (Chartered Institute of Housing 2018). In March 2020, however, apparently prompted by the COVID-19 crisis, the UK Government announced the restoration of LHA maxima to 30th percentile rents across the whole country.

The total amount paid to benefit recipient via UC or as other benefits is also generally subject to a 'total benefit cap'. This cap varies by recipient's household size and whether they live in London, and may effectively reduce the recipient's income below the amount otherwise calculated.

Where a recipient of LHA needs further assistance to meet their housing costs, they can apply for another subsidy—the Discretionary Housing Payment—which is administered by local authorities. Treated as a form of 'transitional relief', this subsidy program is funded by the UK Government specifically to deal with hardships resulting from benefit reductions enacted under welfare reform (such as the 'bedroom tax'). However, the eligibility criteria and payment amounts are determined by local authorities.

Private sector rents are largely unregulated in the UK. Under the Housing Act 1988, new tenancy rents are set by the market and may be increased annually during a tenancy, and disputed if they are excessive to the market. Scotland has recently enacted legislation allowing the Scottish Government, on application by a local council, to declare an area a 'rent pressure zone', in which rent increases are limited to a rate of one percentage point above the CPI. The evidentiary requirements for an application are onerous, and there are currently no rent pressure zones declared.

2.3.6 United States

The main form of demand-side housing assistance in the US is the 'Housing Choice' voucher program (or 'section 8' voucher program in reference to the relevant provision of the US Housing Act 1937). Housing Choice vouchers are funded by the Federal Government and administered by local Public Housing Authorities (PHAs). To be eligible for voucher, an applicant's household income must not exceed 80 per cent of the area median income. Unlike rent assistance in other countries reviewed here, vouchers are not accessed on an entitlement basis. Instead, the program is cash-limited to the extent that the number of beneficiaries (2.2 million households in 2020) is estimated as accounting for less than a quarter of those eligible (McClure and Schwartz 2020). Most PHAs use waiting lists—and a few use lotteries—to ration voucher allocation (Gould 2018). Prompted by the COVID-19 crisis, and associated additional stress on American renters, there have been calls to adapt the Housing Choice voucher program so that eligible claimants may access vouchers by right (McClure and Schwartz 2020; Bertolet 2020).

When a household is allocated a voucher, they are directed to find private rental housing up to certain local maximum rents: these are set at 90–110 per cent of the 'fair market rent', which is equivalent to the 40th or 50th percentile rent, depending on local circumstances. Approximately 20 per cent of voucher recipients use the voucher for their current home (Finkel and Buron 2001). Where a landlord accepts a voucher—not all do—the landlord can redeem the voucher at the PHA for payment equivalent to the difference between the rent and the tenant's own contribution – generally 30 per cent of their household income. Voucher holders may rent premises going for more than the local maximum, in which case they have to cover the excess. However, it is a condition of receipt of the voucher that they not pay more than 40 per cent of their income on rent (Gould 2018). Acceptance of a voucher also obliges the landlord to provide and maintain the premises to a satisfactory standard. The requirement that vouchers must be spent on housing meeting defined minimum standards is liable to exclude the poorest households from assistance because they are unable to access qualifying properties (Kemp 2007b).

Recent experiments in voucher provision include use of 'small area fair market rents' (i.e. fair market rents determined at the scale of zip code), which expand the areas in which voucher holders may look for properties. This encourages moves to 'high opportunity' neighbourhoods. A persistent problem is many vouchers—in one study, 30–40 per cent (Finkel and Buron 2001)—remain unused within the issuing PHA's allowed timeframe. One reason for this is refusal of vouchers by landlords. In response, 13 jurisdictions have prohibited discrimination against voucher holders, but enforcement is weak (Tighe, Hatch et al. 2017).

The regulation of rents varies across the US. In most jurisdictions, rents are set by the market and subject to little or no regulation—indeed, numerous states prohibit local governments from regulating rents. In California, Maryland and New Jersey, some cities and localities have rent regulations implemented by municipal governments. In in New York State, some cities and localities have rent regulations under state-level laws, while the District of Columbia has rent regulation throughout. Most jurisdictions limit rent increases to a percentage declared by a government agency but coverage varies. In the District of Columbia, all rental properties are covered by the district's regime. In New Jersey, renovated buildings are exempt for five years and newly constructed buildings are exempt for 30 years. In New York, multi-unit buildings constructed before 1974 are covered, but may be disqualified in certain circumstances. Approximately one million New York City apartments are subject to 'rent stabilisation', while a much smaller number are subject to a separate, more restrictive regime of 'rent control' that applies to tenancies entered into before 1 July 1971 (Martin, Hulse et al. 2018).

2.4 Policy development implications

In contrast to several of the comparator countries, a notable feature of Australia's CRA regime is its longestablished and largely invariant form. In three of the five countries in our selection there has been much more policy development activity when it comes to review and modification of housing allowance mechanisms. When compared to the Australian Government, the authorities in Germany, Ireland and the UK have been more open to modernising their allowance systems. Aspects of comparator country frameworks that could be considered in more detail as regards their possible applicability could include:

- Extending eligibility to low waged workers, as in New Zealand, the UK and the USA, albeit that constitutional issues would need to be addressed in the Australian context (see Chapter 1)
- Calibrating and uprating standard payment rates or limits according to local market circumstances (such as rates tied to some percentile of the local rent distribution), as under the UK's Housing Benefit scheme (between 2008 and 2013) and Germany's *Arbeitslosengeld II* scheme
- Requiring recipient landlord compliance with defined minimum standards, as under the USA's Rent Choice Vouchers program
- Regulating rents so that they may increase only in line with a declared rate (as in some US jurisdictions) or a moving anchor (as in Germany) or subject to a cap (as in Ireland).

The question of the extent to which demand-side assistance is captured in higher rents – and so may justify these or other measures to contain the effect – has been considered in research in several countries. We review this research, and present the results of our own modelling, in the next chapter.

3. Demand-side rental housing assistance and market rents

- In moderately to severely disadvantaged areas, 6.6 per cent of any increase in CRA can be expected to be 'lost' to higher rents.
- In severely disadvantaged areas, 32.4 per cent of a modelled increase in CRA is shifted into higher rents.
- CRA is more likely to be captured in higher rents in disadvantaged rental markets because of relatively inelastic housing supply in such markets. In addition, tenants in disadvantaged areas may face tight credit constraints that prevent them from shifting into home ownership in response to any rise in rents.

This chapter addresses the first research question of the report:

What is the likely effect of changes in demand-side rental housing assistance on market rents?

We begin by providing an overview of the existing research on this subject in section 3.1. The impacts of CRA, household, dwelling and housing market characteristics on market rents are unpacked via an econometric model. The modelling methodology is set out in section 3.3. Key findings are discussed in section 3.4. The chapter concludes with some policy implication highlights.

3.1 Existing research on this chapter's theme

Research on the effects of rent assistance has mostly focused on affordability outcomes. Some studies, however, have investigated whether there is a second-round effect on rent levels. Such an effect would undermine affordability gains and detract from the conventional belief that, as a means to support lower income housing consumers, demand-side assistance is 'more efficient' than supply-side subsidies. Much of the evidence on these questions comes from the US, Europe and the UK—although a number of studies have been conducted in New Zealand. Questions of other effects—such as labour market effects, and locational choices—have also been investigated, particularly in American studies.

This section will focus primarily on demand-side assistance impacts on rental housing markets; the extent to which rent assistance paid to tenants boosts their purchasing power and/or leaves tenants with a more adequate residual income after housing costs are taken into account.

The affordability outcomes resulting from housing allowances are, of course, dependent on the precise configuration of each national scheme. For example, in Australia many CRA-eligible households remain in rental stress (paying more than 30% of income for housing) even after receipt of this payment. This rental stress is cause by CRA maximum rates, as well as the scheme's geographically invariant rates. According to AIHW (2019), while 68 per cent of entitled tenants face unaffordable rents before CRA is factored in, this falls to 40 per cent post-CRA.

According to Newman (2007), research evidence on the impacts of US rental vouchers demonstrates that assistance provided in this form:

- Reduces overcrowding, but does not affect recipients' housing quality
- Has no effect on work or earnings
- Enhances affordability to the extent that average cost burdens for the recipient cohort lie below the 30 per cent of income benchmark.

While the subject has yet to be specifically investigated in the Australian context, most (although not all) relevant studies undertaken in the US and elsewhere have found that demand-side subsidies paid to renters are liable to capitalisation into rents (see below). That is, the subsidies are partially absorbed by the higher rents that result in conditions of relative scarcity. In consequence, the net benefit for subsidy recipients – low-income tenants – is significantly less than total subsidy expenditure. Referring to the Grattan Institute's recommendation for an increase in CRA, Grattan authors cautiously acknowledge that it is "possible [that this] would to some extent flow through into rent increases" (Daley, Coates et al. 2018: 78).

Neoclassical economic theory would suggest that the scale of such market impacts will be dependent on the elasticity of housing supply. Thus, "the higher the elasticity of the demand for, and the lower the elasticity of supply of, private-rental housing, the larger will be the impact of the subsidy on rents" (Brackertz et al. 2017: 11). Moreover, in a perfectly competitive market, changes in the amount of subsidy paid to subsidy-eligible tenants will affect the rent charged to all renters. Other political economy approaches suggest institutional and regulatory factors should also be considered in the 'struggle' over rent levels.

The US Experimental Housing Allowance Program (EHAP) of the 1970s generated considerable research literature on the impact of housing demand subsidy payments. Reviewing these studies, Hulse (2002) noted their conclusion that additional income provided as a housing allowance tended to be spent on other commodities. Housing behaviour generally remained unchanged, therefore generating a negligible effect in terms of housing supply and – likewise – little impact on rents.

In a widely-cited US study, Susin (2002) found that rent vouchers pushed up rents for all low-income tenants, including those not receiving subsidy. As such, housing assistance vouchers "had caused a large increase in the price of housing for the poor" (2002: 110). In particular, Susin estimated that voucher programs had increased the rents paid by households without vouchers in low quality rental markets by 16 per cent. Similarly, Desmond and Perkins (2016) found that US landlords charge higher rents to voucher holders compared to non-voucher-holding tenants of equivalent properties. At least in part, however, this results from the design of the voucher system, whereby the value of a voucher is the difference between the tenant's contribution and the 40th percentile of the metropolitan area rent. Thus, when a tenant chooses to live in a neighbourhood where the market rent is below the citywide threshold, landlords have an opportunity to 'overcharge'. The associated 'voucher premium' identified by Desmond and Perkins was seen as "…highlight[ing] inefficiencies created by public-private partnerships, often championed precisely for their efficiency" (2016: 139).

A UK study that analysed the impact of reduced Housing Benefit payments estimated that 60–66 per cent of the reduction was borne by landlords; in other words, rents fell by up to two thirds of the percentage benefit cut (Gibbons and Manning 2006). This implies that, under a benefit increase scenario, a third of the amount would be captured by landlords. More starkly, a later study focusing on 2011–12 Housing Benefit reductions found that "about 90% of the incidence of these cuts in the short-run was on tenants" (Brewer, Browne et al. 2019: 11). In other words, the associated rent reduction was such that landlords absorbed only 10 per cent of the cut.

New Zealand studies modelling the impact of higher Accommodation Supplement (AS) payments have reached varying conclusions. One study (Stroombergen 2004) found there would be no impact on rent levels, while another (Grimes and Hyland 2014) estimated that 35 per cent of the increase would be captured by landlords. More recently, a study of the Auckland housing market and the increased AS rates introduced in 2005, concluded that 36 per cent of the increase was absorbed by the higher rents that resulted (Hyslop and Rea 2018).

Analysing the market effects of demand-side housing subsidies in France, Grislain-Letremy and Trevien (2013) identified such payments as a cause of rent inflation in the 1990s and the 2000s. Consistent with this finding, there was a geographical correlation between rent and subsidy levels. The impact was most marked for small dwellings. All of these observations were attributed to (in)elasticity of rental housing supply.

In his panel-data study of the Finnish housing market, Viren (2013) concluded that 30–50 per cent of demand subsidies were captured by landlords. As emphasised in his paper, an important aspect of the policy problem raised by this finding is that subsidy payments to eligible households have knock-on negative impacts for other (middle income) renters who, as a result, also face higher housing costs. While such households may be thereby incentivised to access home ownership, the threshold cost of doing so may be increased as well, due to capitalization of the higher rents brought about through subsidy.

3.2 Data and model

3.2.1 Data

We exploit the nationally representative 2001–17 HILDA Survey for the econometric model. The HILDA Survey commenced in 2001 when survey respondents from over 7,000 households were first interviewed. The survey is a staple Australian data source that offers a comprehensive range of household and individual-level information covering a vast array of domains. Of particular importance to this project is information relating to households' housing circumstances and the areas they live in.

3.2.2 Model

We draw on a study by Viren (2013), who modelled the impact of demand-side rental subsidies on market rents in Finland using a Finnish panel dataset of rental housing assistance recipients during 2000–08. We replicate Viren's (2013) analysis using the 2001–17 HILDA Survey. The econometric specification is essentially a hedonic rent regression, which expresses the real rents paid by private renters as a linear function of household, dwelling and housing market characteristics and the maximum achievable level of CRA, specified as follows:

Rent_{it} = f (CMax_{it} H_{it}, _{it}D, M_t, ε_{it})

where *j* indexes households, *t* indexes time, *CMax* represents the maximum CRA expressed in real terms that the household is entitled to receive, *H* represents household characteristics, *D* represents dwelling characteristics, *M* represents housing market conditions, ∂_i refers to household-specific fixed effects, and ε_{jt} represents a random error term.

A fixed effects linear model minimises potential biases in the model that may result from unobservable characteristics that are excluded from the model. An important excluded characteristic is the year that the dwelling was built. This is not observable in the dataset but is likely to affect rent paid. Given this variable is a fixed effect, the use of a fixed effects model minimises any potential bias that arises from exclusion of this variable from the model.

Following Viren (2013), our key predictor of interest is *CMax*, the maximum rate of CRA for each household. The maximum rate is set by government and so is not dependent on the actual rent paid and cannot be affected by either the tenant or landlord. Hence, it can be considered an exogenous predictor that will affect (rather than be affected by) rents. The coefficient on the CRA maximum rate variable will reflect the average share of rental housing assistance captured in the rent paid to landlords by each household. The fortnightly CRA maximum rates for 2001–17 are derived from the Department of Social Services' (2019) social security guide. There are four sets of maximum CRA rates each year:

- 1. single without children
- 2. couples without children
- 3. households with one to two children
- 4. households with three to four children.

These are typically increased slightly every six months. CRA maximum rates are expressed in nominal terms to align with the nominal rents that act as dependent variables in the model. The CRA maximum rates are assigned to households as follows:

- Private renters who receive income support payments from the government and who pay rent above the CRA
 rent thresholds are eligible to receive CRA and are therefore assigned the CRA maximum rate applicable to
 their household type.
- Private renters who either do not receive income support payments or whose rent falls below the CRA rent thresholds are assigned a CRA maximum rate of zero dollars as they do not qualify for CRA.

It is important to control for the characteristics of both the renter household (*H*) and the dwelling (*D*) occupied. We include the household's income in real terms, since incomes are likely to affect the amount of housing consumed, and hence the rent, payable by the household. Dwelling characteristics also influence the amount of rent paid. In this instance, we include some key property-related features, including the number of bedrooms and dwelling type.

Housing market variables (*M*) would naturally affect the rents that landlords charge for their properties. In highpressure rental zones (such as capital cities), tenants are likely to encounter higher rents. We include a vector of geographical variables to distinguish between high-pressure and low-pressure rental zones. We also include a Socio-Economic Indexes for Areas (SEIFA) indicator reflecting area socio-economic status because socioeconomically advantaged areas are likely to attract higher rents. Furthermore, during times of low vacancy rates, landlords are willing to charge higher rents as opposed to times of high vacancy rates. Hence, we include a series of calendar year indicators as proxies for general housing market conditions.

The full list of predictors is reported in Table 4. All financial values are inflated to 2017 price levels, using the ABS national Consumer Price Index (CPI) for all goods and services.

3.2.3 Sample

The base sample comprises private tenant households renting from a private landlord or real estate agent. We exclude all observations involving multi-family households as it is not possible to accurately determine which CRA maximum rate would apply in this scenario. However, this group accounts for less than three per cent of all observations.

We hypothesise that the potential capitalisation effects of CRA may be greater under the following scenarios:

- In housing markets where rental housing is relatively scarce, such as capital cities
- Time periods when housing market conditions are tight, resulting in high rental pressures
- In localities where many CRA-supported tenants rent.

Hence, we execute the model using five different samples of private renter households:

- Model 1: All private renter households
- **Model 2:** Private renter households in major cities, that is, Sydney, Melbourne, Brisbane, Adelaide, Perth and Australian Capital Territory (these being zones that are likely to have relatively scarce rental housing)
- **Model 3:** Private renter households in 2001–05 (these being years in which the housing market was booming and therefore rent pressures were high)
- **Model 4:** Private renter households that reside in SEIFA areas that fall below the 50th percentile of SEIFA score (to capture severely to moderately disadvantaged areas)
- **Model 5:** Private renter households that reside in SEIFA areas that fall below the 10th percentile of SEIFA score (to capture severely disadvantaged areas).
Table 4: Predictors in the rent regression model

Category	Predictor	Continuous or binary
Rental subsidy	Real CRA maximum rate expressed in 2017 price levels	Continuous
Household income	Real gross household financial year income expressed in $0,000\$ and 2017 price levels	Continuous
Dwelling type	Separate house (ref)	Binary
	Semi-detached	Binary
	Flat	Binary
	Other	Binary
Number of bedrooms	Zero	Binary
	One	Binary
	Тwo	Binary
	Three (ref)	Binary
	Four	Binary
	Five or more	Binary
Area socio-economic advantage	SEIFA 2011 index of relative socio-economic advantage/disadvantage	Continuous
Capital city / rest of state	Sydney (ref)	Binary
	Rest of NSW	Binary
	Melbourne	Binary
	Rest of Victoria	Binary
	Brisbane	Binary
	Rest of Queensland	Binary
	Adelaide	Binary
	Rest of South Australia	Binary
	Perth	Binary
	Rest of Western Australia	Binary
	Tasmania	Binary
	Northern Territory	Binary
	Australian Capital Territory	Binary
Year	2001 (ref)	Binary
	2002	Binary
	2003	Binary
	2004	Binary
	2005	Binary
	2006	Binary
	2007	Binary
	2008	Binary
	2009	Binary
	2010	Binary
	2011	Binary
	2012	Binary
	2013	Binary
	2014	Binary
	2015	Binary
	2016	Binary
	2017	Binary

Source: Authors' definitions from the 2001-2017 HILDA Survey.

3.3 Impact of CRA on market rents

The model estimates are presented in Table 5. Across all five models, we observe that rents are highly sensitive to housing market conditions. It is clear that, relative to Sydney, all other geographical areas captured in the model have lower rents, holding all other factors constant. Dwelling size is also important, as dwellings with more bedrooms attract higher rents. Tenants are also able to afford higher rents as their income rises. However, the CRA effect varies across models.

Model 1, estimated across all private renter households, suggests that CRA does not have a statistically significant effect on market rents. When restricted to major cities in Model 2 or boom years in Model 3, the CRA coefficient is again insignificant, refuting the hypothesis that the CRA is more likely to be captured in higher rents under these conditions.

Estimates from models 1–3 suggest that the capitalisation effect of CRA remains insignificant when compared to studies in the international literature. For instance, Viren (2013) found that 30–50 per cent of demand subsidies are captured by landlords in Finland. In New Zealand, studies such as Grimes and Hyland (2014) and Hyslop and Rea (2018) estimated that around 35 per cent of the increase in AS payments in New Zealand would be captured by landlords.

The absence of strong capitalisation effects can be attributed to several factors. First, Hulse (2002) notes that additional income provided as a housing allowance (and where paid directly to the tenant) can be spent on other commodities. Hence, an increase in demand-side rental subsidies may leave housing behaviour generally unchanged, therefore generating little impact on rents. Second, the structures of demand-side rental subsidy programs differ substantially across countries, such that the Australian case may not be directly comparable with other countries. Third, various studies have highlighted the fact that CRA maximum rates have not kept pace with rent increases over time (Henry, Harmer et al. 2010; ACOSS 2020). Hence, any increase in the CRA maximum rate may only serve to reduce the experience of housing stress, rather than increase housing consumption on the part of CRA-eligible tenants.

However, we do find evidence that some portion of CRA is shifted into higher rents when we restrict the sample to tenants living in moderately to severely disadvantaged areas, as per Model 4. The CRA coefficient is 0.066, indicating that some 6.6 per cent of the CRA maximum rate shifts into higher rental prices. The capitalisation effect of CRA is greatest in Model 5, when the sample is restricted to tenants living in severely disadvantaged areas. The CRA coefficient increases to 0.324 and is strongly significant at the one per cent level, indicating that nearly one-third of the rental subsidy is 'lost' to higher rents.

The observation that CRA is more likely to be shifted into higher rents in disadvantaged areas is not surprising. In theory, the capitalisation effects of CRA are more likely be present in markets with relatively inelastic rental housing supply, because any rise in renters' housing consumption as a result of a rise in CRA cannot be adequately met by new housing supply. In the absence of an adequate supply response, rents rise. Studies have shown that housing supply is, in fact, particularly inelastic in low-value segments of the market. For instance, Ong, Phelps et al. (2019) found that the majority of new housing supply in Australia tends to be concentrated in mid-to-high price segments. Using housing approvals data, they showed that over 80 per cent of house approvals during the period 2005–06 to 2015–16 were in the 6th to 9th house price deciles. At the same time, the majority of new unit approvals were found to be in the high 8th to 10th deciles, and the bottom two unit price deciles accounted for under one per cent of new unit approvals in 2015–16. Furthermore, tenants residing in disadvantaged areas tend to have lower average incomes, so they face tighter credit constraints than higher income tenants. When tenants in disadvantaged areas face a rise in rents, few are therefore able to respond by exiting the rental sector into home ownership.

In a widely cited US study, Susin (2002) reported similar findings. The study found that housing supply in low quality rental markets was relatively inelastic. As such, the increased demand from housing voucher recipients raised the price of rental housing for unsubsidised households by 16 per cent in the lowest income neighbourhoods.

		Model 1: All		Mode	el 2: Major c	ities	Mode	el 3: Boom y	ears	Model 4: Moderately to severely disadvantaged areas			Mo disac	Model 5: Severely disadvantaged areas		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	
CRA	-0.018	0.033	0.601	-0.044	0.055	0.423	0.088	0.102	0.387	0.066	0.038	0.083	0.324	0.126	0.011	
Income (\$'0,000)	13.616	0.484	0.000	15.810	0.699	0.000	19.034	1.752	0.000	10.506	0.841	0.000	9.294	3.350	0.006	
Semi-detached	54.851	7.395	0.000	47.823	11.090	0.000	64.204	21.283	0.003	53.199	9.016	0.000	22.387	23.438	0.340	
Flat	56.899	6.361	0.000	55.993	10.148	0.000	13.093	19.406	0.500	26.895	7.819	0.001	1.817	24.193	0.940	
Other dwelling type	60.656	69.775	0.385	172.138	157.978	0.276	72.451	113.039	0.522	54.577	82.896	0.510				
No bedroom	-288.652	30.119	0.000	-337.664	42.805	0.000	-363.331	77.587	0.000	-247.743	35.925	0.000	-316.761	109.928	0.004	
1 bedroom	-274.636	7.995	0.000	-296.066	12.304	0.000	-193.673	24.662	0.000	-230.050	10.823	0.000	-226.700	38.237	0.000	
2 bedrooms	-91.792	6.139	0.000	-103.308	10.007	0.000	-82.765	18.232	0.000	-74.085	7.203	0.000	-31.561	22.711	0.166	
4 bedrooms	65.443	6.554	0.000	66.572	11.031	0.000	42.464	21.648	0.050	48.616	7.862	0.000	55.479	30.378	0.069	
5+ bedrooms	62.539	13.731	0.000	92.123	21.898	0.000	114.813	50.211	0.022	18.453	18.554	0.320	87.063	49.148	0.078	
SEIFA index	0.737	0.027	0.000	0.870	0.044	0.000	0.584	0.086	0.000	0.463	0.040	0.000	0.017	0.169	0.919	
Rest of NSW	-188.108	10.364	0.000				-157.665	50.396	0.002	-130.689	11.787	0.000	-94.653	39.508	0.017	
Melbourne	-144.973	15.187	0.000	-125.912	23.839	0.000	-55.500	55.422	0.317	-79.852	21.808	0.000	-5.456	93.650	0.954	
Rest of Victoria	-253.925	18.044	0.000				-203.459	60.590	0.001	-151.024	22.545	0.000	-59.621	82.362	0.470	
Brisbane	-122.981	14.138	0.000	-95.085	25.800	0.000	-189.361	58.204	0.001	-45.171	18.293	0.014	44.649	66.449	0.502	
Rest of Queensland	-169.732	14.074	0.000				-192.819	55.341	0.001	-91.656	17.086	0.000	-66.433	64.693	0.305	
Adelaide	-190.164	17.882	0.000	-210.910	31.344	0.000	-263.869	75.950	0.001	-121.478	21.208	0.000	-27.576	78.440	0.725	
Rest of SA	-272.434	23.108	0.000				-286.268	87.717	0.001	-213.682	24.349	0.000	-146.610	74.093	0.049	
Perth	-181.776	17.792	0.000	-173.019	25.948	0.000	-236.468	69.687	0.001	-113.349	27.483	0.000	65.982	146.288	0.652	
Rest of WA	-213.277	22.866	0.000				-292.800	74.079	0.000	-139.776	30.706	0.000	39.217	107.339	0.715	
Tasmania	-241.174	21.237	0.000				-266.552	63.922	0.000	-171.442	24.395	0.000	-42.907	87.631	0.625	
NT	-166.545	31.006	0.000				-196.041	110.350	0.076	-45.044	58.563	0.442	177.254	196.919	0.369	
ACT	-74.549	22.822	0.001	-90.908	30.678	0.003	-142.225	96.953	0.143	90.552	56.617	0.110				

Table 5: Rent regression model, 2001–17

3. Demand-side rental housing assistance and market rents

	Model 1: All			Model 2: Major cities			Model 3: Boom years			Model 4: Moderately to severely disadvantaged areas			Model 5: Severely disadvantaged areas		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
2002	23.741	29.845	0.426	56.441	42.217	0.181	123.293	64.403	0.056	1.372	46.572	0.977	-112.959	49.053	0.022
2003	39.759	29.861	0.183	62.503	42.343	0.140	122.055	64.453	0.058	38.196	46.572	0.412	-74.839	52.126	0.152
2004	39.745	29.820	0.183	54.049	42.489	0.203	118.074	64.479	0.067	27.462	46.572	0.555	-76.673	50.387	0.129
2005	39.794	29.698	0.180	59.333	41.875	0.157	116.864	64.189	0.069	28.670	46.511	0.538	-118.576	52.056	0.024
2006	51.984	28.783	0.071	52.695	40.275	0.191				49.067	45.399	0.280	-27.341	49.853	0.584
2007	56.535	28.601	0.048	64.153	40.004	0.109				54.406	45.323	0.230	-40.637	45.885	0.377
2008	87.425	28.714	0.002	94.687	40.283	0.019				96.564	45.312	0.033	-25.929	44.672	0.562
2009	133.508	28.753	0.000	152.134	40.957	0.000				115.512	44.776	0.010	-49.742	50.730	0.328
2010	141.610	28.770	0.000	172.961	40.546	0.000				111.790	45.304	0.014			
2011	56.862	50.775	0.263	55.826	77.248	0.470				18.414	78.735	0.815	2.476	35.060	0.944
2012	49.108	51.797	0.343	34.744	78.785	0.659				21.284	79.597	0.789	-65.383	35.496	0.067
2013	58.323	51.779	0.260	41.116	78.789	0.602				31.392	79.602	0.693	30.340	32.792	0.356
2014	37.132	51.779	0.473	12.184	78.818	0.877				10.433	79.624	0.896	12.083	34.617	0.727
2015	41.460	51.771	0.423	26.054	78.811	0.741				20.059	79.554	0.801	48.104	32.057	0.135
2016	42.161	51.750	0.415	17.987	78.773	0.819				21.344	79.562	0.789	21.787	30.823	0.480
2017	41.488	51.744	0.423	20.343	78.733	0.796				20.861	79.597	0.793			
Constant	-90.296	46.218	0.051	-234.974	71.457	0.001	-86.055	112.165	0.443	121.210	67.949	0.075	449.239	142.833	0.002
Ν	35,272			21,072			7,842			17,651			3,524		
R-sq	0.286			0.246			0.286			0.207			0.226		
F-stat	128.600		0.000	71.320		0.000	16.830		0.000	37.610		0.000	3.870		0.000

Source: Authors' own calculations from the 2001-17 HILDA Survey.

3.4 Policy development implications

From a policy perspective, our most important finding is the presence of capitalisation effects of CRA into rents in disadvantaged neighbourhoods. In moderately to severely disadvantaged areas, nearly seven per cent of any increase in CRA can be expected to be 'lost' to higher rents. In severely disadvantaged areas, nearly one-third of CRA is shifted into higher rents. CRA is more likely be captured in higher rents in markets with relatively inelastic rental housing supply, because any CRA-induced rise in rental housing consumption cannot be adequately met by new housing supply. In the absence of an adequate supply response, rents rise. Ong, Phelps et al. (2019) has confirmed that new housing supply is relatively inelastic in low-value housing market segments in Australia.

The findings raise concerns on various fronts. When CRA is shifted into higher market rents, this affects not only CRA recipients but also non-CRA eligible tenants living in affected areas. For instance, some low-income workers living in disadvantaged areas might not meet CRA eligibility requirements, but will suffer a rise in the rents they face as a result of the capitalisation effects of CRA into market rents. CRA recipients living in disadvantaged areas will also benefit less from increases in CRA entitlements than those not living in disadvantaged areas. Tenants residing in disadvantaged areas tend to have lower average incomes, so they face tighter credit constraints than higher income tenants. When tenants in disadvantaged areas face a rise in rents, they are less able to respond by exiting the rental sector into home ownership due to these credit constraints. As such, while CRA reforms that improve the housing position of low-income tenants would be desirable, policy makers should also be cognisant of the partial 'loss' of CRA to higher rents that may accompany any rise in CRA that accompany such reforms.

4. Commonwealth Rent Assistance: distribution and effectiveness

- CRA plays an important role in alleviating housing stress among lowincome private renters. However, there remains scope for improving its performance with respect to the adequacy of CRA paid to eligible renters and its targeting accuracy in future reforms.
- Out of 1.41 million low-income private renter units, nearly two-thirds or 933,000 are assisted by CRA.
- Before receiving CRA, low-income private renters who are eligible for CRA pay on average 36 cents per dollar of their gross income in rents. After receipt of CRA, this burden falls to 26 per cent.
- However, over one-third of low-income CRA recipients still carry a net housing cost burden of more than 30 per cent after CRA is deducted from rents. Nearly one in five carry a net housing cost burden of over 40 per cent and nearly one in ten bear a severe housing cost burden of 50 per cent after deducting CRA from rents.
- CRA is also plagued with targeting accuracy problems. Around 246,000 or 18 per cent of low-income private renter income units pay rents that exceeds 30 per cent of their income but are ineligible for CRA. Another 330,000 or 23 per cent receive CRA despite paying rents below 30 per cent of their income. CRA's overall target error rate is thus quite high at 41 per cent.
- Singles with no children make up 80 per cent of low-income private renter income units who are in housing stress but not receiving CRA. On the other hand, families with children are over-represented among the group who receive CRA while not in housing stress.

This chapter presents empirical evidence on the impacts of CRA on low-income private renters using the 2017 HILDA Survey. This chapter provides a 'base case' against which three reforms to CRA are compared in the next chapter. Specifically, this chapter profiles the socio-demographic characteristics of low-income CRA recipients in section 4.1. Section 4.2 offers a critical evaluation of CRA's cost-effectiveness, as measured by its impacts on housing cost burdens and housing affordability stress, its targeting accuracy and its impact on government budgets.

4.1 Measurement and definitions

4.1.1 Unit of analysis

The unit of analysis is the income unit, which comprises people living in the same household who share resources. The four key types of income units we are able to observe are singles with no children, couples with no children, singles with children and couples with children. By children, we are referring to dependent children as defined by the Australian Bureau of Statistics. These are either aged under 15 years old, or are aged 15–24 and living at home with their parents or guardians while studying full-time and have no identified partner or child living in the same household (Australian Bureau of Statistics 2016).

As per Table 1, these are the four key income unit types that attract different CRA thresholds and rates. In addition, the CRA program accounts for single sharers and couples who are living separately. While we are able to observe single sharers from the HILDA Survey, we are unable to observe couples who are separated. Due to this data limitation, we apply standard couple thresholds to all couples in the HILDA Survey who are eligible to receive CRA.

4.1.2 Estimating income unit rents

Rental payments are reported on a household basis in the HILDA Survey. While the majority of households are comprised of one income unit each, a minority of households are multiple income units. For example, a multi-generational household comprising a couple with dependent children and an elderly grandparent would be classified as two income units, where the elderly grandparent is a second separate income unit. Another example is a group household of single sharers.

In order to apportion household rents across incomes units with a multi-income unit household, we apply the modified Organisation for Economic Co-operation and Development (OECD) equivalence scale to calculate the weight of each income unit within the household. The scale assigns a weight of 1 to the first adult in the income unit, 0.5 to the second adult, and 0.3 per dependent child (OECD n.d.). Hence, consider the previous example of the multi-generational household. The first income unit would carry a weight of 1.8, given two adults and a dependent child. The second income unit would carry a weight of 1. As such, the household weight would be the sum of the income unit weights: 2.8. If the household rent were \$600 per week, the rent apportioned to the first income unit would be \$386 (i.e. 1.8 / 2.8 * \$600) and the rent apportioned to the second income unit would be \$214 (i.e. 1 / 2.8 * 600).

4.1.3 Low-income private renter sample

Our focus is on low-income private renter income units. Following previous AHURI housing affordability research by Yates (2007), we apply the modified OECD equivalence scale to equivalise the reported disposable income of all private renter income units in the 2017 HILDA Survey. The scale assigns a weight of 1 to the first adult in the income unit, 0.5 to the second adult, and 0.3 per dependent child (OECD n.d.), and thus adjusts for the influence of household type and size on reported incomes. The private renter income units are then ranked from lowest to highest in terms of their equivalised disposable income. The private renter income units that fall into the bottom 40 per cent of the income distribution are defined as low-income.

4.1.4 Housing cost, income and housing cost burdens

A key measure that reflects the affordability, security and choice faced by low-income private renters is their housing cost burden. Conceptually, this is a tenant's housing cost expressed as a percentage of their income unit income. We measure a tenant's housing cost burden in two ways:

The gross or pre-CRA housing cost burden is the ratio of the tenant's gross rent to gross income (excluding CRA).

- The net or post-CRA housing cost burden is the ratio of the tenant's net rent (or rent less CRA) to gross income (excluding CRA).
- Both are expressed as percentage measures. The income value excludes CRA to ensure that the impact of this subsidy is only captured in the numerator of the housing cost burden.

Following Wood, Forbes et al.'s (2005) housing affordability study, CRA is conceptualised as a housing assistance measure despite being paid as a cash supplement to renters. Hence, it is deducted from rents in the net housing cost burden measure and excluded from the income measure that enters the denominator of the housing cost burden ratio.

4.1.5 Analysis themes

We apply population weights supplied within the HILDA Survey to all reported estimates in this and the next chapter, to ensure that our findings reflect population trends.

In section 4.2, we conduct a distributional analysis that profiles the characteristics of low-income CRA recipients compared to low-income private renters who do not receive CRA.

We then roll out a series of analysis in section 4.3 designed to uncover the effectiveness of CRA in reducing housing stress. This is performed in multiple stages. We first investigate the impact of CRA on housing cost burdens and the incidence of housing stress among low-income CRA recipients. We then estimate the extent to which CRA is subject to targeting error. Following Wood, Forbes et al. (2005), we set a threshold gross rent-to-income percentage reflecting a typical benchmark of housing stress for low-income renters i.e. 30 per cent of income (Wood and Ong 2009), but also explore housing cost burden benchmarks of 40 per cent and 50 per cent. We then divide low-income renters into four groups:

- Target-error group 1 (TEG-1): Tenants paying gross rents above the affordability benchmark percentage, but are not receiving CRA
- Target-error group 2 (TEG-2): Tenants receiving CRA but paying gross rents that fall below the benchmark percentage
- Target-accurate group 2 (TAG-1): Tenants receiving CRA and paying gross rents above the benchmark
- Target-accurate group 2 (TAG-2): Tenants not receiving CRA and paying rents below the benchmark percentage.

The target-error rate is thus the number of renters in the two target-error groups as a percentage of all low-income private renters.

4.2 Profile of low-income CRA recipients

Population weighted estimates from the HILDA Survey show that there are 3.24 million private renter income units in total in the population, of which 1.41 million (43.5%) are on low incomes, while 1.82 million (56.5%) are on moderate incomes.

Among the 1.41 million low-income private renter income units, nearly two-thirds or 933,000 are eligible to receive CRA. Unsurprisingly, the incidence of CRA receipt falls as income rises. Among moderate-income private renter income units, just over one-fifth or 481,600 are eligible for CRA receipt.

We first compare the profile of low-income CRA recipients with the general low-income private renter population. Even after equivalising reported incomes, we find that singles with no children make up the majority of low-income private renter income units (nearly 60%), as per Table 6. Couples with children and sole parents make up around 15 per cent each, and couples with no children make up the smallest group of around one-tenth of low-income private renters. However, the low-income CRA-recipient population has a somewhat different profile. Singles with no children make up one-half of CRA recipients (less than the 60% share of the low-income private renter population as a whole), while couples and singles with children each make up around one-fifth (compared to 15%) of the low-income CRA population.

Low-income CRA recipients also tend to be older than the general low-income private renter population, with around 60 per cent aged 35 years or over. On the other hand, 68 per cent of low-income CRA non-recipient private renters are aged under 35 years old. Corresponding with their age and CRA eligibility, CRA recipients are more likely to be unemployed or out of the labour force while non-recipients are more likely to be employed on either a full-time or part-time basis. Interestingly, low-income CRA recipients are under-represented in certain capital cities, including Sydney, Perth and noticeably Melbourne.

Next, we compare the profile of low-income CRA recipients with moderate-income CRA recipients. Three key distinctions emerge. Firstly, low-income CRA recipients are more likely to have no children than moderate-income recipients. In particular, half of low-income CRA recipients are single with no children, compared to just 16 per cent of moderate-income recipients. On the other hand, three-quarters of moderate-income CRA recipients have children. Hence, the majority of low-income recipients receive CRA through eligibility for pensions and allowances, while the majority of moderate-income recipients receive CRA through eligibility for more than the base rate of FTB(A).

Secondly, low-income CRA recipients are more likely to be either young (<35 years old) or older (55+ years) while moderate-to-high income CRA recipients are most likely to be middle-aged (35–54 years). Among low-income CRA recipients, 40 per cent are aged under 35 years old, compared to 32 per cent of moderate-income CRA recipients. Even more stark is the difference in representation among the oldest age group. Thirty per cent of low-income CRA recipients are 55 years or older, compared to under 13 per cent of moderate-income CRA recipients.

There is a final important distinction in the labour force patterns of low-income versus moderate-income CRA recipient groups. More than half of low-income CRA recipients are not in the labour force; this equates to more than three times the share of moderate-income CRA recipients who are not in the labour force. Low-income CRA recipients are also more likely to be unemployed (9%), which is more than twice the share of moderate-income CRA recipients who are unemployed.

	Low-income								Moderate	e-income			
	Populat	tion ('000)		Per cent	Per cent by column			Population ('000)			Per cent by column		
	CRA recipients	Other	All	CRA recipients	Other	All	CRA recipients	Other	All	CRA recipients	Other	All	
All	932.8	476.2	1,409.0				418.6	1,414.1	1,832.7				
Income unit type													
Single no children	465.1	372.6	837.7	49.9%	78.2%	59.5%	65.4	835.5	900.9	15.6%	59.1%	49.2%	
Couple no children	110.0	44.6	154.6	11.8%	9.4%	11.0%	39.9	343.0	382.9	9.5%	24.3%	20.9%	
Single with children	167.9	41.2	209.1	18.0%	8.7%	14.8%	122.8	22.2	145.0	29.3%	1.6%	7.9%	
Couple with children	189.8	17.8	207.6	20.3%	3.7%	14.7%	190.5	213.4	403.9	45.5%	15.1%	22.0%	
Age band													
<35 years	369.91	322.5	692.4	39.7%	67.7%	49.1%	133.6	742.2	875.8	31.9%	52.5%	47.8%	
35-54 years	282.1	97.3	379.4	30.2%	20.4%	26.9%	232.5	496.2	728.7	55.5%	35.1%	39.8%	
55+ years	280.8	56.4	337.2	30.1%	11.8%	23.9%	52.5	175.7	228.2	12.5%	12.4%	12.5%	
Labour force status													
Full-time employed	187.4	201.1	388.5	20.1%	42.2%	27.6%	254.2	1,218.3	1,472.5	60.7%	86.2%	80.3%	
Part-time employed	162.8	179.8	342.6	17.5%	37.8%	24.3%	91.5	138.1	229.6	21.8%	9.8%	12.5%	
Unemployed	81.9	19.8	101.7	8.8%	4.2%	7.2%	14.5	11.2	25.7	3.5%	0.8%	1.4%	
Not in the labour force	500.2	73.8	574.1	53.6%	15.5%	40.7%	57.0	45.7	102.8	13.6%	3.2%	5.6%	

Table 6: Profile of low-income and moderate-income private renters, by CRA recipient status, 2017, population counts and per cent column

		Low-income							Moderate-income					
	Popula	tion ('000)		Per cent	Per cent by column			Population ('000)			Per cent by column			
	CRA recipients	Other	All	CRA recipients	Other	All	CRA recipients	Other	All	CRA recipients	Other	All		
Location														
Sydney	168.8	96.9	265.7	18.1%	20.3%	18.9%	92.6	443.8	536.4	22.1%	31.4%	29.3%		
Rest of NSW	111.9	47.6	159.5	12.0%	10.0%	11.3%	39.3	87.9	127.2	9.4%	6.2%	6.9%		
Melbourne	165.5	132.2	297.7	17.7%	27.8%	21.1%	75.8	304.0	379.8	18.1%	21.5%	20.7%		
Rest of VIC	67.8	19.1	86.9	7.3%	4.0%	6.2%	27.6	57.1	84.7	6.6%	4.0%	4.6%		
Brisbane	108.9	38.5	147.4	11.7%	8.1%	10.5%	40.3	155.4	195.7	9.6%	11.0%	10.7%		
Rest of QLD	128.9	61.4	190.2	13.8%	12.9%	13.5%	64.2	127.1	191.3	15.3%	9.0%	10.4%		
Adelaide	47.6	24.5	72.2	5.1%	5.1%	5.1%	17.1	52.0	69.1	4.1%	3.7%	3.8%		
Rest of SA	20.4	3.3	23.7	2.2%	0.7%	1.7%	5.2	7.3	12.6	1.2%	0.5%	0.7%		
Perth	41.4	25.7	67.0	4.4%	5.4%	4.8%	28.7	93.5	122.3	6.9%	6.6%	6.7%		
Rest of WA	36.6	6.5	43.1	3.9%	1.4%	3.1%	15.0	18.1	33.1	3.6%	1.3%	1.8%		
Tasmania	30.8	11.1	41.9	3.3%	2.3%	3.0%	6.7	25.8	32.4	1.6%	1.8%	1.8%		
NT	0.3	4.6	4.9	0.0%	1.0%	0.3%	2.1	14.2	16.4	0.5%	1.0%	0.9%		
ACT	3.8	4.8	8.6	0.4%	1.0%	0.6%	3.9	27.0	30.9	0.9%	1.9%	1.7%		

Notes: In the case of couples, the age band is based on the age of the older member of the couple income unit.

Source: Authors' own calculations from the 2017 HILDA Survey.

4.3 Cost-effectiveness of CRA

This section begins by comparing the gross or pre-CRA housing cost burdens of low-income CRA recipients with their net or post-CRA burdens. The analysis uncovers the extent to which CRA might help reduce the housing cost burdens of low-income renters.

Table 7 shows that the typical low-income CRA recipient income unit reports a fortnightly income of \$1,262, equivalent to approximately two-thirds of the average income of \$1,949 reported by all CRA recipients. While low-income CRA recipients' gross or pre-CRA housing costs are lower than reported by all CRA recipients, the former bears a housing cost burden of 36 per cent, compared to 26 per cent for the latter.

Hence, before receiving CRA, low-income private renters eligible for CRA pay, on average, 36 cents per dollar of their gross income in rents. After receipt of CRA, this burden falls to 26 per cent, which is below the common 30 per cent benchmark that is used to denote housing stress. Among all CRA recipients, the presence of CRA also reduces housing cost burdens (from 26% to 20%).

However, averages can be misleading if distributions are diverse. Table 8 therefore reports the incidence of housing stress, defined as the share of a population subgroup that are bearing housing cost burdens above 30, 40 or 50 per cent of their gross income, representing moderate, severe and very severe housing stress respectively. These incidence measures differ depending on whether CRA has been taken into account. Among low-income CRA recipients, nearly two-thirds would be in moderate to very severe housing stress using the 30 per cent benchmark if they did not receive CRA. This incidence nearly halves to 34 per cent after CRA is taken into account. Without CRA, over 40 per cent would be in severe housing stress and one-quarter would be in very severe housing stress. The incidence of each of these measures is more than halved by the presence of CRA.

The findings suggest that CRA plays an important role in reducing housing stress among those eligible to receive it, particularly those on low incomes. However, it seems that CRA simply does not extend far enough in reducing housing stress for significant numbers of low-income tenants. Over one-third of low-income CRA recipients remain in moderate to very severe housing stress after CRA is deducted from rents. Nearly one in five remain in severe housing stress, and nearly one in ten experience very severe housing stress after deducting CRA from rents.

Housing cost burden measuresLow-incomeAllGross income (\$/fortnight)\$1,262\$1,949Gross or pre-CRAHousing cost (\$/fortnight)\$454\$513Ratio of mean housing cost to mean income (%)36.0%26.1%Net or post-CRA

Table 7: Mean gross and net housing cost burdens, low-income and all CRA recipient income units only, 2017

Source: Authors' own calculations from the 2017 HILDA Survey.

Ratio of mean housing cost to mean income (%)

Housing cost (\$/fortnight)

Table 8: Incidence of housing stress pre- and post-CRA, low-income CRA recipients, 2017

Housing stress benchmark	Pre-CRA	Post-CRA
30% (moderate)	64.6%	33.9%
40% (severe)	41.8%	17.8%
50% (very severe)	24.7%	9.0%

Note: The incidence of pre-CRA housing stress is calculated on the basis of whether gross housing cost burdens exceed the benchmark. The incidence of post-CRA housing stress is calculated on the basis of whether net housing cost burdens exceed the benchmark. Source: Authors' own calculations from the 2017 HILDA Survey.

\$383

19.7%

\$330

26.3%

There are also issues with CRA's targeting accuracy. Table 9 sets out the results of a target-error analysis based on the 30 per cent housing stress benchmark. As explained in section 4.1.4, low-income private renters can be divided into four groups, two of which are target-error groups and another two are target-accurate groups. Individuals who fall into the target-error groups are either in housing stress but not receiving CRA (TEG-1) or receiving CRA while not in housing stress (TEG-2). Individuals in the target-accurate groups are either in housing stress and receiving CRA (TAG-1) or not in housing stress and not receiving CRA (TAG-2).

Using the common 30 per cent benchmark, we find some 246,000 low-income private renter income units meeting the benchmark but not receiving CRA. This group makes up 18 per cent of all low-income private renters. However, an even bigger group receives CRA, despite paying rents that fall below 30 per cent of their income. This group of 330,300 income units make up nearly one-quarter of the low-income private renter population. CRA's overall target error rate is thus quite high at 41 per cent.

Table 9: Target-error groups (TEGs) and target-accurate groups (TAGs) among low-income private renters, 2017

	Population count ('000)	Per cent
TEG-1: Gross housing cost burden > 30%, but do not receive CRA	246.0	17.5%
TEG-2: Gross housing cost burden \leq 30%, but receive CRA	330.3	23.4%
TAG-1: Gross housing cost burden > 30% and receive CRA	602.5	42.8%
TAG-2: Gross housing cost burden \leq 30% and do not receive CRA	230.2	16.3%
All	1,409.0	100.0%

Source: Authors' own calculations from the 2017 HILDA Survey.

Table 10 delves deeper into the nature of CRA's targeting error by shedding light on the groups who are overrepresented in TEG-1 (in housing stress but not receiving CRA) and those over-represented in TEG-2 (not in housing stress but receiving CRA).

Perhaps the most striking finding is the severe over-representation of singles with no children within TEG-1. Eighty per cent of income units in housing stress but not receiving CRA are single adults with no children. This is a significant over-representation, given singles with no children only make up 60 per cent of all low-income private renters. On the other hand, this income unit type is under-represented in TEG-2 while families with children are over-represented in TEG-2. One in five income units receiving CRA while not in housing stress are single with children, while over one-third are couples with children. These shares are significantly higher than the share of all low-income private renters made up by sole parents and couples with children (15% each).

In terms of other characteristics, TEG-1 features over-representation by low-income private renters who are young, employed, and living in capital cities like Sydney and Melbourne. On the other hand, those living in regional areas and tend to be over-represented among the group who receive CRA while not in housing stress (TEG-2).

Overall, we can compare the TEG-1 and TEG-2 distributions with the TAG-1 and TAG-2 distributions to gauge the groups that are being incorrectly targeted by CRA versus those that are accurately targeted. We find that incorrect targeting is more evident among income units with children, young and middle-aged groups and the employed. There is also somewhat stronger evidence of incorrect targeting among residents of Sydney and Melbourne. On the other hand, CRA targeting accuracy is more evident among income units with no children, older income units and those who are out of the labour force.

						TEG-1	TAG-1	
	Characteristics	TEG-1	TEG-2	TAG-1	TAG-2	+ TEG-2	+ TAG-2	All
Income unit type	Single no children	80.3%	35.9%	57.5%	76.0%	54.9%	62.6%	59.5%
	Couple no children	7.0%	7.3%	14.2%	11.9%	7.2%	13.6%	11.0%
	Single with children	10.2%	20.0%	16.9%	7.0%	15.8%	14.2%	14.8%
	Couple with children	2.4%	36.8%	11.3%	5.1%	22.1%	9.6%	14.7%
Age group	Under 35	71.9%	42.5%	38.1%	63.2%	55.1%	45.0%	49.1%
	Between 35 and 54	18.9%	38.0%	26.0%	22.0%	29.8%	24.9%	26.9%
	55 and over	9.2%	19.5%	35.9%	14.7%	15.1%	30.0%	23.9%
Labour force status	Full-time employed	40.0%	34.9%	12.0%	44.6%	37.1%	21.0%	27.6%
	Part-time employed	44.5%	17.9%	17.2%	30.5%	29.3%	20.9%	24.3%
	Unemployed	3.3%	7.1%	6.1%	4.0%	5.5%	5.5%	7.2%
	Not in the labour force	11.7%	40.0%	64.8%	20.6%	27.9%	52.6%	40.7%
Location	Sydney	26.3%	14.4%	20.1%	14.0%	19.5%	18.4%	18.9%
	Rest of NSW	5.9%	14.8%	10.5%	14.4%	11.0%	11.6%	11.3%
	Melbourne	36.5%	18.3%	17.4%	18.4%	26.1%	17.7%	21.1%
	Rest of VIC	1.8%	8.7%	6.5%	6.3%	5.8%	6.4%	6.2%
	Brisbane	6.5%	9.3%	13.0%	9.7%	8.1%	12.1%	10.5%
	Rest of QLD	9.1%	16.0%	12.6%	16.9%	13.1%	13.8%	13.5%
	Adelaide	3.1%	6.6%	4.3%	7.4%	5.1%	5.2%	5.1%
	Rest of SA	0.7%	2.1%	2.2%	0.7%	1.5%	1.8%	1.7%
	Perth	5.6%	5.1%	4.1%	5.2%	5.3%	4.4%	4.8%
	Rest of WA	2.0%	1.0%	5.5%	0.7%	1.4%	4.2%	3.1%
	Tasmania	1.0%	3.3%	3.3%	3.7%	2.3%	3.4%	3.0%
	NT	0.0%	0.0%	0.1%	2.0%	0.0%	0.6%	0.3%
	ACT	1.4%	0.2%	0.5%	0.5%	0.7%	0.5%	0.6%

Table 10: Characteristics of target-error groups (TEGs) and target-accurate groups (TAGs) based on the moderate housing stress benchmark, column per cent, low-income private renters, 2017

Source: Authors' own calculations from the 2017 HILDA Survey.

4.4 Policy development implications

This chapter has shed light on the distribution and cost-effectiveness of the actual (2017) CRA structure on lowincome private renters.

Our first key finding is that CRA plays an important role in reducing housing stress among those who are eligible to receive it, particularly those on low incomes. Out of 1.41 million low-income private renter units, nearly two-thirds or 933,000 are assisted by CRA. Before receiving CRA, low-income private renters who are eligible for CRA pay, on average, 36 cents per dollar of their gross income in rents. After receipt of CRA, this burden falls to 26 per cent, below the common 30 per cent benchmark that is used to denote moderate housing stress.

Among low-income CRA recipients, nearly two-thirds would be in moderate to very severe housing stress if they did not receive CRA. This incidence nearly halves to 34 per cent after CRA is taken into account. The incidences of severe and very severe housing stress are represented by 40 and 50 per cent benchmarks. Without CRA, over 40 per cent would be in severe housing stress and a significant one-quarter would be in very severe housing stress. These incidences are more than halved by the presence of CRA.

However, it seems the case that CRA simply does not go far enough in reducing housing stress for significant shares of low-income private renters. It remains the case that over one-third of low-income CRA recipients are in moderate to very severe housing stress after CRA is deducted from rents. Nearly one in five experience severe housing stress, and nearly one in ten are in very severe housing stress after deducting CRA from rents.

And there are issues pertaining to the targeting accuracy of CRA. Around 246,000 or 18 per cent of low-income private renter income units pay rents that exceed 30 per cent of their income, but yet they do not receive CRA. Another 330,000 or 23 per cent receive CRA while not in housing stress. CRA's overall target error rate is thus quite high at 41 per cent.

Singles with no children make up 80 per cent of low-income private renter income units who are in housing stress but not receiving CRA. This is a significant over-representation given that singles with no children only make up 60 per cent of all low-income private renters. On the other hand, families with children are over-represented among the group who receive CRA while not in housing stress.

Clearly, despite the important role that CRA plays in alleviating housing stress among low-income groups, there remains scope for improving its performance with respect to the adequacy of CRA paid to eligible renters and its targeting accuracy in future reforms. We explore these in further detail in the next chapter.

5. Demand-side rental housing assistance reform: impacts of three reform options

- We modelled reforms that increased the CRA maximum rates by 30 per cent, altered the rent thresholds to reduce targeting error on the basis of income unit type and altered the CRA eligibility rule to reflect housing need.
- Raising the CRA maximum rate would generate the largest number of winners, amounting to 623,800 income units or 44 per cent of low-income private renters. However, it is the costliest of the three reforms, requiring additional expenditure of \$1 billion to amount to a total annual cost of \$5.6 billion.
- Changing the CRA eligibility rules would see a notable shift in the composition of people who benefit from CRA, away from those whose rents fall below 30 per cent of their income to those whose rents exceed the 30 per cent benchmark. This results in 246,000 beneficiaries from the reform and 330,300 who would see their position deteriorate as a result of the reform.
- Reforming the CRA eligibility rules to reflect housing need appears to draw beneficiaries from cities with significant housing cost pressures; low-income private renters in Melbourne and Sydney make up more than half of beneficiaries under this reform.

5. Demand-side rental housing assistance reform: impacts of three reform options

- Reforming the CRA eligibility rules to reflect housing need would achieve the greatest housing affordability improvements at the lowest cost. This reform would reduce CRA targeting error down to zero and reduce the population of low-income private renter income units in housing stress by 371,200 or 44 per cent. At the same time, it would generate a cost saving of \$1.2 billion per annum, reducing CRA expenditure to \$3.4 billion, down from \$4.6 billion per annum.
- Constitutional barriers will need to be overcome to change the CRA eligibility rules to reflect housing need. CRA could be reformed as a Commonwealth-State and Territory program (with the Australian Government making grants to state and territory governments to pay Rent Assistance to eligible persons), or an expansion of the Australian Government's constitutional powers could be considered to make provision for housing benefits.

This chapter addresses the second key research question of this report:

What are the impacts of reforming CRA on low-income private renters?

An impact analysis is necessarily multi-dimensional. Hence, we break this research question down into the following sub-questions:

- What is the cost-effectiveness of alternative CRA reform proposals in terms of targeting accuracy to achieve improved affordability housing outcomes and impacts on government budgets?
- Who are the winners and losers from alternative reforms?
- How might reforms to CRA affect decisions to transition from private renting to owning?

Through policy simulation modelling (described in section 1.4.4), in this chapter, we predict the impacts of three potential reforms to CRA as compared to its actual structure (2017) reported in chapter 4.

5.1 CRA reform designs

We designed and modelled three CRA reforms. These were informed by outcomes of the international literature review of demand-side rental housing assistance programs in Australia and comparator countries set out in chapter 3, as well as an AHURI Policy Engagement workshop that followed.

The invited workshop attendees comprised a select group of policy makers from the Australian Government and state governments, as well as non-governmental representatives from areas of policy and practice related to the rental sector. They included representatives from Department of Social Services, Department of Health and Human Services Victoria, Department of Justice and Regulation Victoria, National Housing Finance and Investment Corporation, Tenants Union of NSW, as well as two housing researchers who have made significant contributions to policy agendas throughout their academic careers.

These stakeholders were invited to participate as policy experts in a face-to-face workshop in Melbourne in September 2019 to explore reform options for demand-side rental housing assistance in Australia's rental housing market. The workshop was facilitated by AHURI at its national office.

The workshop was guided by AHURI's Policy Development Research Model, which seeks to integrate the separate processes of evidence building and policy development into one set of practices. The research team presented the outcomes of the international review to the workshop participants. A discussion was held regarding the frameworks of programs from the comparator countries, and the pros and cons of adapting different frameworks to the Australian setting. The workshop provided a forum for discussing the findings from the international and national literature review, considering ways of adapting overseas programs for application in an Australian setting, identifying key reforms that might be most relevant to the Australian policy context, and highlighting priority reforms from a policy perspective.

At the conclusion of the workshop, attendees had identified and agreed on three broad types of reforms to be modelled in subsequent stages of the project that would be informative from a policy perspective. It should be noted that attendees expressly requested the modelling of reform scenarios unconstrained by considerations as to constitutional basis for payments. Nonetheless, this is a substantial issue for CRA reform, and we briefly return to it below.

Following advice from the policy engagement workshop attendees, we have modelled reforms addressing the CRA maximum rates (reform 1), CRA rent thresholds (reform 2) and CRA eligibility (reform 3). Where possible to apply in the Australian context, we have also drawn on parameters from comparator countries. The three reforms are described below.

5.1.1 Reform 1: Raise CRA maximum rates by 30 per cent

The policy engagement workshop attendees agreed that CRA maximum rates have not kept up with longterm rental increases. Various reforms have been proposed in the past to increase the CRA maximum rates to restore historic purchasing power. This is particularly important for cities that have faced growing affordability pressures, such as Sydney. There may also a geographical angle; it is arguable that the maximum rates should be higher in places like Sydney and other capital cities where rents are higher (as they are in NZ's Accommodation Supplement; see section 2.3.4).

We considered various existing Australian recommendations in relation to raising the maximum CRA rates. A common call has been to raise the CRA maximum rates by 30 per cent to bring income units up to minimum budget standards (ACOSS 2020 2018; Mission Australia 2018). Hence, we modelled this proposal to increase the maximum rate by 30 per cent. As shown in Table 11, a 30 per cent increase in maximum CRA rates increases the amount of rent at which the maximum rate is paid. Single and couple income units without children will experience an increase of just under \$40, while single sharers will experience an increase of around \$27 per fortnight. At the same time, families with one to two children and more than three children will receive an increase of \$47 and \$53 per fortnight respectively.

_	Act	ual		Reformed		
Income unit type	Maximum CRA rate	Minimum rent at which CRA maximum rate is paid	Change in maximum CRA rate (+30%)	Maximum CRA rate	Minimum rent at which CRA maximum rate is paid	
No children						
Single	\$133.00	\$295.93	\$39.90	\$172.90	\$349.13	
Single sharer	\$88.67	\$236.83	\$26.60	\$115.27	\$272.29	
Couple	\$125.40	\$359.40	\$37.62	\$163.02	\$409.56	
With children						
Single 1-2 children	\$156.24	\$364.14	\$46.87	\$203.11	\$426.64	
Single 3+ children	\$176.54	\$391.21	\$52.96	\$229.50	\$461.82	
Couple 1-2 children	\$156.24	\$438.90	\$46.87	\$203.11	\$501.40	
Couple 3+ children	\$176.54	\$465.97	\$52.96	\$229.50	\$536.58	

Table 11: Actual and reformed fortnightly CRA maximum rates, 2017

Source: Actual CRA parameters from Department of Human Services (2017). Reformed CRA parameters authors' own calculations.

5.1.2 Reform 2: Re-setting the rent thresholds to address greater housing stress among income units with no children

The CRA rent threshold determines when the rental subsidy applies to private renters. The policy engagement workshop attendees discussed the possibility of varying rental thresholds based on different criteria, such as the type of income support payment received. Alternatively, the threshold could be lowered for all income support payment recipients may have to pay a significant share of their pension or allowance payment in rents before the rental subsidy becomes applicable.

We considered these options against the targeting error analysis reported in chapter 4. The analysis shows that income units with children are over-represented in TEG-2, i.e. those whose housing costs are below 30 per cent but who receive CRA. In comparison, single income units without children are over-represented in TEG-1, i.e. those whose housing costs are above 30 per cent but who do not receive CRA. Randolph and Holloway (2007, tables 4.1 and 4.2) also contend that even after allowing for differential living costs faced by different household types, it is likely that families with older children would enjoy higher incomes than lone person households. Hence, they argue that it is debatable "whether some households at income thresholds above basic welfare levels actually have 'low' incomes" (Randolph and Holloway 2007: 17). Similarly, Burke, Stone et al. (2011) found that singles in private rental, particularly elderly singles, face the greatest affordability problem. In general, the scale of this affordability problem decreases as the number of children increases. The authors suggested that elderly single private renters could receive some form of targeted rent assistance (Burke, Stone et al. 2011: 24). Hence, we considered the design of a reform to re-set the rent thresholds so as to improve horizontal equity across all low-income income unit types (regardless of whether the units have children) to improve targeting accuracy.

As shown in Table 12 below, CRA is applicable at 36 per cent of the median rent paid by low-income private renters who are partnered with children (and 31 per cent of the median rent for low-income singles with children). On the other hand, for income units with no children, CRA kicks in only at 44 per cent of the median rent for partnered renters (and 39 per cent for singles). As such, low-income private renter income units without children typically pay a higher share of their rents before they become eligible for CRA than those with children. The renters without children are also pension, allowance or ABSTUDY recipients, whereas those with children are recipients of more than the base rate of FTB(A).

We therefore designed a CRA reform where the rent thresholds are lowered by \$60 per fortnight for couples without children, and \$30 per fortnight for singles without children. At the same time, we raised the rent thresholds by \$60 per fortnight for couples with children, and \$30 per fortnight for singles with children. Under the reformed threshold arrangements, low-income tenants without children become eligible for CRA where they pay more than 30 per cent of their income on rent. Those with children pay a higher amount of their income on rent before the CRA threshold becomes applicable. The reform is expected to reduce the over-representation of tenants without children within the TEG-2 group, while also reducing the over-representation of single tenants without children within the TEG-1 group.

		Ac	tual		Reformed	
Income unit type	Median fortnightly rent by low-income private renters (\$)	Fortnightly rent threshold (\$)	Rent threshold as a share of gross income unit income (%)	Change in fortnightly rent threshold (\$)	Fortnightly rent threshold (\$)	Rent threshold as a share of gross income unit income (%)
Single no children	\$301	\$118.60	39.4%	-\$30	\$88.60	29.4%
Couple no children	\$441	\$192.20	43.6%	-\$60	\$132.20	30.0%
Single with children	\$501	\$155.82	31.1%	+\$30	\$185.82	37.1%
Couple with children	\$642	\$230.58	35.9%	+\$60	\$290.58	45.3%

Table 12: Actual and reformed fortnightly CRA rent thresholds, 2017

Note: Median rents authors' own calculations from the 2017 HILDA Survey. Reformed CRA parameters authors' own calculations. Source: Actual CRA parameters from Department of Human Services (2017).

5.1.3 Reform 3: Change the CRA eligibility criteria to reflect housing need

The policy engagement workshop discussions considered the possibility of reforming private rental housing subsidies so they tackle housing need rather than be viewed as a social security payment (in which guise they are constitutionally limited to being paid only as a supplement to recipients of mainstream benefits). If CRA were reformed to address housing need, the target group would extend beyond income support payment recipients to include those who do not currently receive CRA but are nonetheless on low-income and in housing stress (as under, for example, the UK's Housing Benefit framework in section 2.3.5). The aim is then to ensure that rental subsidy recipients are left with sufficient after-housing cost income to meet other needs. We therefore modelled such a reform. We assumed that CRA can be de-coupled from other income support payments and can be paid independently to those in housing need, defined as low-income private renters whose rents exceed 30 per cent of their income.

5.2 What is the cost-effectiveness of alternative reforms?

This section investigates the cost-effectiveness of the three CRA reform options in two stages. First, we assessed the effectiveness of each reform by evaluating each reform's targeting accuracy and success in reducing the number of income units in housing stress against the actual CRA program. We then assessed the extent to which each reform is able to achieve improved affordability outcomes for those most in need of such change. Second, we estimated the impact of each reform on government budgets. Reforms that achieved the largest affordability improvements at the smallest increase in public expenditure would be the most effective.

Table 13 reports the targeting accuracy of the various reforms against the actual CRA structure. Raising the CRA maximum rate and altering the rent threshold (reforms 1 and 2) do not appear to shift the target error rate in a meaningful way. In fact, the target error rate remains completely unchanged under reform 1. This is unsurprising because targeting accuracy is defined according to whether a low-income private renter's gross housing cost burden exceeds the 30 per cent benchmark of moderate housing stress. Raising the CRA maximum rate does not therefore alter CRA's targeting accuracy as its chief impact lies in reducing net (i.e. post-CRA) housing cost burdens, which we discuss later.

Re-setting the rent thresholds (reform 2) expands the group receiving CRA while not in housing stress (TEG-2) from 330,300 to 353,500, while reducing the size of the group not receiving CRA because they are not in housing stress (TAG-2). Hence, the target error rate actually worsens slightly from 41 per cent to 43 per cent under reform 2.

On the other hand, the targeting error is reduced to zero when the CRA eligibility rules are altered to reflect housing need under reform 3. Under this reform, all low-income private renters in housing stress (as per the 30 per cent rule) would receive CRA, while all those not in housing stress would become ineligible for CRA. The target error rate therefore plunges to zero while targeting accuracy shoots up to 100 per cent.

Table 13: Target-error groups (TEGs) and target-accurate groups (TAGs) among low-income private renters, actual and reformed, 2017

	Actual	Reform 1	Reform 2	Reform 3
Population count ('000)				
TEG-1: Gross housing cost burden > 30%, but do not receive CRA	246.0	246.0	246.0	0.0
TEG-2: Gross housing cost burden \leq 30%, but receive CRA	330.3	330.3	353.5	0.0
TAG-1: Gross housing cost burden > 30% and receive CRA	602.5	602.5	602.5	848.5
TAG-2: Gross housing cost burden \leq 30% and do not receive CRA	230.2	230.2	207.0	560.5
All	1,409.0	1,409.0	1,409.0	1,409.0
Per cent				
TEG-1: Gross housing cost burden > 30%, but do not receive CRA	17.5%	17.5%	17.5%	0.0%
TEG-2: Gross housing cost burden \leq 30%, but receive CRA	23.4%	23.4%	25.1%	0.0%
TAG-1: Gross housing cost burden > 30% and receive CRA	42.8%	42.8%	42.8%	60.2%
TAG-2: Gross housing cost burden \leq 30% and do not receive CRA	16.3%	16.3%	14.7%	39.8%
All	100.0%	100.0%	100.0%	100.0%

Source: Authors' own calculations from the 2017 HILDA Survey.

Targeting accuracy is an incomplete measure of the success of a reform. While a reform may not improve a program's targeting accuracy (as in the case of reform 1), it may nonetheless improve affordability outcomes for low-income private renters by reducing the numbers in housing stress.

As shown in Table 14 below, the number of low-income private renter income units in housing stress amounts to 848,500 income units in total, making up 60 per cent of all low-income private renter income units. The number in housing stress falls significantly under each reform. The number of low-income private renter income units in housing stress drops the most, by 44 per cent or 371,200 income units, when the CRA eligibility rules are altered to reflect housing need. This is followed closely by raising the CRA maximum rate, which reduces the numbers in housing stress by 40 per cent or 342,200. Re-setting the minimum rent thresholds (reform 2) has the smallest impact in terms of reducing the numbers in housing stress, but this impact is nonetheless significant. Under reform 2, the number of low-income private renter income units in housing stress falls by 303,700 income units or 36 per cent.

Table 14: Count and incidence of housing stress post-reform, low-income private renter income units only, 2017

	Actual	Reform 1	Reform 2	Reform 3
Number in housing stress ('000)	848.5	506.4	544.9	477.4
Incidence of housing stress (%)	60.2%	35.9%	38.7%	33.9%
Number in housing stress under reform – number in housing stress under actual ('000)		-342.2	-303.7	-371.2
(Number in housing stress under reform – number in housing stress under actual) / number in housing stress under actual (%)		-40.3%	-35.8%	-43.7%

Note: The incidence of housing stress under each scenario is calculated on the basis of whether net housing cost burdens exceed 30 per cent.

Source: Authors' own calculations from the 2017 HILDA Survey.

The impact of reforms on housing affordability outcomes may be dampened to the extent that CRA is capitalised into higher rents. As reported in chapter 3, our models show that 32.4 per cent of an increase in CRA is shifted into higher rents for those living in severely disadvantaged areas. Table 15 describes the extent to which the net housing cost of low-income CRA recipients in severely disadvantaged areas are affected by capitalisation effects under each reform. Under the actual structure, low-income CRA recipients in severely disadvantaged areas, the capitalisation effects are spay on average net (post-CRA) housing costs of \$286 per fortnight. On average, the capitalisation effects are small. The reforms would lead to average increases in rents of \$1.9- \$7.4 per fortnight for low-income CRA recipients living in severely disadvantaged areas.

These effects are minor, not because capitalisation effects are absent, but because low-income private renter income units living in severely disadvantaged areas often pay such low rents that many fall below the rent thresholds to quality for CRA under actual or reformed arrangements, despite their low-income status. It is also important to note that capitalisation effects impact not just CRA tenants, but also non-CRA recipients who are not captured within Table 15.

Table 15: Mean net housing cost of low-income CRA recipient income units living in severely disadvantaged areas before and after CRA is capitalised into rents, 2017

	Actual	Reform 1	Reform 2	Reform 3
Mean gross income (\$/fortnight)	\$1,340	\$1,340	\$1,340	\$1,340
Mean amount of CRA capitalised into rents		\$7.4	\$1.9	\$6.4
Before capitalisation		\$257	\$269	\$310
Mean net housing cost before capitalisation (\$/fortnight)	\$286	\$264	\$282	\$314
Ratio of mean net housing cost to mean income (%)	21.3%	19.7%	21.0%	23.4%
After capitalisation				
Mean net housing cost after capitalisation (\$/fortnight)		\$264	\$271	\$316
Ratio of mean net housing cost to mean income (%)		19.7%	20.2%	23.6%

Source: Authors' own calculations from the 2017 HILDA Survey.

Table 16 reports the cost of each CRA reform against the \$4.6 billion per annum presently required to roll out the actual CRA program. While low-income private renters are the focus of this report, each reform will impact on all CRA recipients regardless of their income status. Hence, we calculated the cost of each reform for all CRA recipients and low-income recipients only. Under the actual structure, \$3 billion of the \$4.6 billion would be expended on low-income CRA recipients.

Raising the CRA maximum cap is the costliest reform, requiring additional expenditure of \$1 billion to amount to a total cost of \$5.6 billion per annum. Of this, \$44 million would be 'lost' through capitalisation effects. This is not surprising, as reform 1 does not create any losers; raising the CRA maximum cap will only increase the number of beneficiaries of the reform. Reform 3 is least costly. In fact, altering the CRA eligibility rules to reflect housing need will generate a cost savings of \$1.2 billion per annum as a reformed CRA program that directly reflects housing need will cost \$3.4 billion per annum, which is lower than the current cost of \$4.6 billion per annum. The patterns are for the low-income CRA population, with reform 1 costing an additional \$633,000 per annum and reform two generating savings of \$230,000 per annum.

The overall analysis suggests that tailoring the CRA program to reflect housing need would be the most costeffective. Such a reform would reduce targeting error down to zero and reduce the population of income units in housing stress by the greatest number, while achieving the greatest cost savings. Table 16: Annual cost of CRA reforms, in 2017 dollars

CRA budget	Actual	Reform 1	Reform 2	Reform 3
	\$4,583.1	\$5,629.4	\$4,691.6	\$3,447.7
		\$1,046.30	\$108.50	-\$1,243.90
		\$43.7	\$7.9	\$21.2
	\$3,024.7	\$3,658.1	\$3,147.6	\$2,795.1
		\$633.40	\$122.90	-\$229.60
		\$27.9	\$7.3	\$12.3
	CRA budget	CRA budget Actual \$4,583.1 \$4,583.1 \$4,583.1 \$4,583.1 \$3,024.7 \$3,024.7	CRA budget Actual Reform 1 \$4,583.1 \$5,629.4 \$4,583.1 \$5,629.4 \$1,046.30 \$43.7 \$43,024.7 \$3,658.1 \$633.40 \$27.9	CRA budget Actual Reform 1 Reform 2 \$4,583.1 \$5,629.4 \$4,691.6 \$4,583.1 \$5,629.4 \$4,691.6 \$1,046.30 \$108.50 \$43,7 \$7.9 \$3,024.7 \$3,658.1 \$633.40 \$122.90 \$27.9 \$7.3

Source: Authors' own calculations from the 2017 HILDA Survey.

5.3 Who are the winners and losers of the reforms?

Table 17 reports the number and share of low-income private renters who would be affected differently by each reform. Six groups are of particular interest:

- **G1:** Those who are ineligible for CRA under its actual (2017) design, but who would become eligible under a reform
- **G2:** Those already eligible for CRA under its actual (2017) design, but who would gain an increase in CRA payment under a reform
- **G3:** Those who receive CRA under its actual (2017) design and under a reform, but who would experience a reduction in CRA as a result of the reform
- **G4:** Those who receive CRA under its actual (2017) design, but completely lose their CRA entitlement as a result of a reform
- **G5:** Those who receive CRA under its actual (2017) design and under a reform, but who would experience no change to their CRA payment as a result of the reform
- **G6:** Those who are ineligible for CRA under its actual (2017) design and remain ineligible under a reform.

G1 and G2 can be loosely classified as 'winners' under a reform, while G3 and G4 can be classified as 'losers'. The positions of G5 and G6 remain unchanged by a reform.

As shown in Table 17, raising the CRA maximum rate (reform 1) would generate the largest number of winners amounting to 623,800 income units or 44 per cent of low-income private renters. This is consistent with the relative cost of the three reform options; reform 1 costs the most and, as such, it generates the greatest number of winners. Altering the rent thresholds (reform 2) or eligibility rules (reform 3) would give rise to 273,700 and 246,000 winners respectively, less than half the number of winners as reform 1.

No low-income private renter would be worse off if the CRA maximum rate is raised, and a relatively small number of 61,200 lose out if rent thresholds are changed. On the other hand, changing the eligibility rules would result in a deterioration in the position of some 330,300 low-income private renters (nearly one-quarter) as they find themselves no longer eligible for CRA because their rents do not exceed 30 per cent of their income.

Both reforms 1 and 3 will therefore have greater impacts on the circumstances of low-income private renters than reform 2. However, reforms 1 and 3 will impact on renters in different ways. Raising the CRA maximum rate would significantly increase the number of low-income private renters who can benefit from CRA. Changing the eligibility rules (reform 3) would see a notable shift in the composition of people who benefit from CRA, away from those whose rents fall below 30 per cent of their income to those whose rents exceed the 30 per cent benchmark.

Table 17: Table 17: Number and per cent of low-income private renter income units that would experience a change in CRA payments after the reforms, 2017

	CRA status	Reform 1	Reform 2	Reform 3
Number of low-income private renter income units ('000)				
Winners				
G1: Become eligible for CRA		0.0	25.9	246.0
G2: Increase in CRA payment		623.8	247.8	0.0
Lose				
G3: Reduction in CRA payment		0.0	58.5	0.0
G4: Become ineligible for CRA		0.0	2.7	330.3
No change				
G5: No change to CRA payment		309.0	623.8	602.5
G6: Remain ineligible for CRA		476.2	450.3	230.2
Per cent of low-income private renter income units				
Winners				
G1: Become eligible for CRA		0.0%	1.8%	17.5%
G2: Increase in CRA payment		44.3%	17.6%	0.0%
Losers				
G3: Reduction in CRA payment		0.0%	4.2%	0.0%
G4: Become ineligible for CRA		0.0%	0.2%	23.4%
No change				
G5: No change to CRA payment		21.9%	44.3%	42.8%
G6: Remain ineligible for CRA		33.8%	31.9%	16.3%

Source: Authors' own calculations from the 2017 HILDA Survey.

Table 18 delves further into the characteristics of the winners and losers. Here, we are particularly interested in comparing the profiles of G1 and G2, versus G3 and G4. The table does not list the characteristics of losers under reform 1, as there are no losers when the CRA maximum rate is raised. We added an additional column listing the distribution of characteristics of all low-income private renters, as a benchmark against which distribution under each reform can be compared.

Beginning with reform 1, we find that raising the CRA maximum rate would significantly benefit middle-aged families with children who are not in the labour force. Though couples and singles with children each make up just 15 per cent of all low-income private renter income units, they make up 26 per cent and 22 per cent respectively of winners under reform 1. Families with children are much more likely to be receiving the CRA maximum rate under the actual structure compared to those with no children. Hence, families with children would benefit more from the CRA maximum rate being raised than families without children. The middle age group (35–54 years) would benefit most from the reform, reflecting the typical age of adults in families with children. Winners under the reform are over-represented by those not in the labour force, potentially due to childcare responsibilities.

The profile of winners and losers under reform 2 closely reflects the design of the new rent thresholds. As described previously in the chapter, the model seeks to reduce the rent thresholds applicable to those with no children, while raising the rent thresholds of those with children. As such, there are no families with children among the winners, and there are no childless income units among the losers. Singles with no children are clear winners from a \$30 per fortnight reduction in rent thresholds, as they make up 84 per cent of winners under the reform. The losers are spread more evenly between sole parents and couples with children. Reflecting the typical profile of low-income singles with no children, the older group aged over 55 years who are not in the labour force are the largest group of beneficiaries from the reform. On the other hand, the working group aged 35–54 years who are working full-time or unemployed are the largest group of losers from the reform.

Reform 3 produces yet another distinct group of winners and losers. Beneficiaries of changing the CRA eligibility rules to reflect housing need are typically young singles with no children who are low-income workers. Singles with no children make up 80 per cent of winners from the reform, while those aged under 35 years make up 72 per cent of winners. On the other hand, middle-aged families with children make up the majority of losers under the reform.

There are few distinct geographic patterns with respect to reforms 1 and 2. However, reforming the CRA eligibility rules to reflect housing need appears to draw beneficiaries from cities with significant housing cost pressures; low-income private renters in Melbourne and Sydney make up more than half of beneficiaries under reform 3 (37 per cent and 26 per cent of beneficiaries respectively). In comparison, regional areas appear to lose out under such a reform, with regional areas of New South Wales, Victoria, Queensland, South Australia and Tasmania all over-represented among losers.

	Reform 1	Reform 2		Reform 3		All low-income
Characteristics	Winners	Winners	Losers	Winners	Losers	private renter income units
Income unit type (col %)						
Single no children	41.0%	84.4%	0.0%	80.3%	35.9%	59.5%
Couple no children	11.4%	15.6%	0.0%	7.0%	7.3%	11.0%
Single with children	21.8%	0.0%	54.1%	10.2%	20.0%	14.8%
Couple with children	25.7%	0.0%	45.9%	2.4%	36.8%	14.7%
Age band (col %)						
<35 years	38.4%	40.8%	47.4%	71.9%	42.5%	49.1%
35-54 years	33.1%	18.6%	49.2%	18.9%	38.0%	26.9%
>=55 years	28.5%	40.7%	3.8%	9.2%	19.5%	23.9%
Labour force status (col %)						
Full-time employed	22.3%	10.6%	36.3%	40.0%	34.9%	27.6%
Part-time employed	19.5%	14.1%	10.7%	44.5%	17.9%	24.3%
Unemployed	6.1%	12.5%	20.5%	3.8%	10.0%	7.2%
Not in the labour force	52.1%	62.9%	31.8%	8.4%	37.1%	40.7%
Location (col %)						
Sydney	18.2%	20.3%	8.5%	26.3%	14.4%	18.9%
Rest of NSW	12.2%	11.0%	12.7%	5.9%	14.8%	11.3%
Melbourne	19.1%	14.8%	17.3%	36.5%	18.3%	21.1%
Rest of VIC	7.0%	8.5%	4.7%	1.8%	8.7%	6.2%
Brisbane	13.7%	7.8%	7.8%	6.5%	9.3%	10.5%
Rest of QLD	11.8%	18.8%	14.6%	9.1%	16.0%	13.5%
Adelaide	4.2%	6.8%	7.9%	3.1%	6.6%	5.1%
Rest of SA	1.7%	3.1%	1.9%	1.0%	2.1%	1.7%
Perth	3.5%	3.7%	18.3%	5.6%	5.1%	4.8%
Rest of WA	4.9%	2.2%	1.3%	2.0%	1.0%	3.1%
Tasmania	3.2%	3.1%	5.2%	1.0%	3.3%	3.0%
NT	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%
ACT	0.6%	0.1%	0.0%	1.5%	0.2%	0.6%

Table 18: Table 18: Characteristics of low-income private renter income units that would experience a change in CRA after the reforms, 2017

Source: Authors' own calculations from the 2017 HILDA Survey.

5.4 How will the reforms influence the cost of private renting relative to the cost of owning?

In this section, we implement a relative price analysis. In previous sections, we have already estimated the impact of each reform on low-income private renters' cost of renting i.e. their net housing cost. We compare these with an imputed cost of owning for each renter; that is, we estimate what each renter's cost would be *if* they were owning. The ratio of the cost of renting to cost of owning gives us a relative price of renting to owning. This is a key measure used in housing economics when analysing tenure choice decisions (Hendershott, Ong et al. 2009; Wood, Smith et al. 2013).

To impute the cost of owning, we implement the following steps. First, we assume that the value of the property the renter is living in reflects the stream of rents suitably discounted so as to convert future rents into present values. Hence, the renter's estimated property value, *if the renter were a home owner*, would be the renter's annual rent divided by a gross rental yield. Housing industry sources suggest that the gross rental yield ranges from three to five per cent in metropolitan areas and over five per cent in regional areas (Mortgage Choice 2019). Hence, we apply a rental yield of four per cent for metropolitan locations and five per cent for regional locations.

Once we impute a property value for each home owner, we estimate the annual after-tax cost of owning a property, also known as the user cost of owning a property. The key components of the user cost typically comprise recurrent components (such as financing and operating costs) and amortised capital components (see for example Hendershott, Ong et al. 2009; Wood and Ong 2008). The user cost of owner-occupied housing is confirmed by various Australian sources to be typically around five per cent (Wood, Smith et al. 2013; Fox and Tulip 2014). We therefore estimate the annual user cost of owner-occupied housing for each renter in our sample as five per cent of their imputed property value.

Table 19 compares the cost of renting and owning for low-income private renter income units under the various reforms. Under the actual structure, a typical low-income private renter income unit pays \$12,835 per year to net rents and this would rise to \$18,880 if the renter were to own the dwelling in which they reside. Hence, the average net cost of renting is around 68 per cent of the cost of owning and a minority (15%) of low-income private renters would find renting more expensive than owning.

Table 19 shows that each reform would have minimal impact on the relative price of renting to owning for lowincome renters. Increasing the CRA maximum rate (reform 1) would reduce the average net cost of renting by \$322 per year. Changing the rent threshold (reform 2) would have an even smaller impact, reducing the mean annual cost of renting by just \$33. While these reforms would reduce the net cost of renting for private renters, it is unlikely that they would assist in a move out of the private rental sector into home ownership. The small amount of annual savings is unlikely to generate sufficient savings for the renters to bridge the deposit gap that acts as a key barrier to home purchase.

Changing the CRA eligibility rules (reform 3) actually increases the average net cost of renting relative to owning by \$351 per year. As a result, the share of low-income private renters whose net cost of renting would exceed their cost of owning rises from 15 to 22 per cent, an increase of seven percentage points.

Table 19: Cost of renting versus cost of owning, low-income private renter income units, 2017

(a) Actual versus reform

	Actual	Reform 1	Reform 2	Reform 3
Mean cost of owning (\$/year)	\$18,880	\$18,880	\$18,880	\$18,880
Mean net cost of renting (\$/year)	\$12,835	\$12,513	\$12,802	\$13,186
Relative price (ratio of mean net cost of renting to mean cost of owning) (%)	68.0%	66.3%	67.8%	69.8%
Percentage of low-income private renter income units whose net cost of renting > cost of owning	15.3%	15.3%	14.7%	21.8%
Percentage of low-income private renter income units whose net cost of renting < cost of owning	84.7%	84.7%	85.3%	78.2%

(b) Difference (reform - actual)

	Reform 1 – Actual	Reform 2 – Actual	Reform 3 – Actual
Mean cost of renting (\$/year)	-\$322	-\$33	\$351
Relative price (ratio of mean net cost of renting to mean cost of owning) (%)	-1.7%	-0.2%	1.8%
Percentage of low-income private renter income units whose net cost of renting > cost of owning	0.0%	-0.6%	6.5%
Percentage of low-income private renter income units whose net cost of renting < cost of owning	0.0%	0.6%	-6.5%

Note: The cost of renting is calculated based on net rents.

Source: Authors' own calculations from the 2017 HILDA Survey.

5.5 What constitutional problems may be encountered in CRA reform?

As indicated in chapter 2, the current eligibility requirements for CRA—specifically, that the recipient also receives a social security payment or FTB—have their basis in the Australian Constitution. Reforms that expand eligibility beyond social security recipients—such as reform 3—may be unconstitutional. It is useful to step through these issues in a little more detail.

Generally speaking, Australian Government spending must be authorised by legislation, and the authorising legislation must be supported by a head of power under the Constitution. Authority for this construction of the Australian Government's power to spend comes from a recent line of decisions by the High Court of Australia, most notably *Williams v Commonwealth of Australia* [2014] HCA 23 (known as *Williams (No 2)*). In that decision, the High Court struck down a Australian Government program that paid schools to employ chaplains, holding that no constitutional head of power supported the legislation purporting to authorise the program.⁵ A Australian Government program of rental assistance, therefore, requires legislation that authorises the payments, and a constitutional head of power that underpins the legislation.

The legislation for the actual CRA program is the Social Security Act 1991 (Cth), which is underpinned by the social security power in section 51(xxiiiA) of the Constitution. This power is expressed in highly specific terms: it empowers the Australian Government to legislate for:

"...the provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances."

Because CRA is paid as a supplementary rate to other social security payments authorised by legislation, supported by a clear source of power in the Constitution, its current legislative and constitutional basis must be regarded as sound. But section 51(xxiiiA) does not refer to housing benefits in their own right, so does not appear to support legislation for a stand-alone CRA payment.

None of the other heads of power at section 51 refer expressly to housing. Some may be broad enough to support legislation for a wider CRA program, but this is uncertain. Perhaps the most likely contender is the 'external affairs' power (section 51(xxix)), which can support legislation to give effect to obligations under international law. The *National Housing Finance and Investment Corporation Act 2018* (Cth) relies in part on this head of power: it is invoked at section 10(1)(b) of the Act to give effect to the right to an adequate standard of living, including housing, at Article 11 of the *International Covenant on Economic, Social and Cultural Rights 1966.* Another contender is the 'corporations' power (section 51(xx)), which is a broad power. It now underpins the workplace relations system (the *Fair Work Act 2009* (Cth)), as well as Australia's Corporations Law. However, it is probably not broad enough to reach a private rental sector where most landlords are not incorporated.

Two further constitutional approaches may be considered. First, CRA could be reformed as a Commonwealth-State and Territory program, with the Australian Government making grants to state and territory governments to pay Rent Assistance to eligible persons. These grants are made 'on such terms and conditions as the Parliament thinks fit', and are not subject to the limitations identified in *Williams [No 2]* (Chordia, Lynch and Williams 2015). Indeed, this is the basis for the current version of the school chaplains program, as well as the various first home owners grant programs of the past 20 years. As the experience of those programs shows, the involvement of state and territory governments does open up the prospect of negotiation and variation in the terms of the program.

The final approach is an expansion of the Australian Government's constitutional powers to make provision for housing benefits. This may be done either by a referral of power by the states (section 51(xxxvii)) or by a referendum to alter the Constitution (section 128). The former happens occasionally (the 2009 referral of powers regarding consumer credit is a recent example); the latter less often.

⁵ The impugned legislative basis of the school chaplains program was its itemisation as a funding program in the *Financial Management* and Accountability Regulations 1997 (Cth). This arrangement was itself a response by the Australian Government to the High Court striking down an earlier version of the program in Williams v the Commonwealth [2012] HCA 23 (*Williams (No. 1*)), where no legislation authorised the program aside from the appropriation Acts that had earmarked funds from Consolidated Revenue to the program. Holding that the appropriations power (section 81) could not, by itself, support spending on any subject matter, the High Court applied its reasoning in *Pape v Commissioner for Taxation* [2009] HCA 23, the first in this line of decisions. There, the High Court held that the \$900 stimulus bonus payment made under the *Tax Bonus for Working Australians Act (No 2) 2009* (Cth), was validly authorised and supported on the narrow basis of the Australian Government's 'nationhood power' (section 61), and not on the wider purported basis of the appropriations power. See Chordia, Lynch and Williams (2015) for a detailed discussion of this line of decisions.

5.6 Policy development implications

The cost-effectiveness analysis suggests that tailoring the CRA program to reflect housing need (reform 3) would achieve the greatest affordability improvements at the lowest cost. Such a reform would reduce targeting error down to zero, while the other two reforms have mild to no impact on targeting errors. Reform 3 would also reduce the population of low-income private renter income units in housing stress by 371,200 or 44 per cent. This is a slightly greater reduction than the 342,200 (40 per cent) decline achieved under reform 1 and the 303,700 (36 per cent) decline achieved under reform 2. Raising the CRA maximum cap turns out to be the costliest reform, requiring additional expenditure of \$1 billion to amount to a total cost of \$5.6 billion. Reform 3 is least costly; changing the CRA eligibility rules to reflect housing need would generate annual cost savings of \$1.2 billion, reducing CRA expenditure to \$3.4 billion per annum.

Our winners and losers analysis show that raising the CRA maximum rate (reform 1) would generate the largest number of winners, amounting to 623,800 income units or 44 per cent of low-income private renters. No low-income private renter would be worse off if the CRA maximum rate were raised. Changing the eligibility rules would see a shift in the composition of people who benefit from CRA, away from those whose rents fall below the moderate housing stress benchmark to those whose rents exceed the benchmark. This results in 246,000 beneficiaries from the reform, and 330,300 who would see their position deteriorate as a result of the reform.

However, there are constitutional barriers to implementing CRA reforms. The current eligibility requirements for CRA—specifically, that the recipient also receives a social security payment or FTB—have their basis in the Australian Constitution. Reforms that expand eligibility beyond social security recipients—such as reform 3—may be unconstitutional. However, constitutional approaches could be considered to overcome these constraints. First, CRA could be reformed as a Commonwealth-State and Territory program, with the Australian Government making grants to state and territory governments to pay Rent Assistance to eligible persons. Second, an expansion of the Australian Government's constitutional powers could be considered to make provision for housing benefits.

Though some portion of CRA is shifted into higher rents for those living in severely disadvantaged areas, these effects make little impact in dampening the effectiveness of the reforms. Low-income private renter income units living in severely disadvantaged areas often pay such low rents that many fall below the rent thresholds to quality for CRA—under actual or reformed arrangements—despite their low-income status. It is also important to recall that non-recipients are also affected when CRA is captured in higher rents. However, these are not the focus of the CRA reform impact analysis. It is important for policy makers to be cognisant of the effect of CRA on market rents faced by both recipients and non-recipients in severely disadvantaged areas, when considering potential reforms to CRA.

Finally, the reforms have minimal impact on low-income private renters' cost of renting relative to their cost of owning. As such, these reforms are unlikely to have a significant impact on private renters' ability to save a deposit for home purchase, though they may improve choice within the rental sector. Assistance with home purchase will be achieved more effectively through other programs that are not tied to CRA. Tenants who are unlikely to be able to bridge the deposit gap, even with home purchase assistance, will continue to face issues and tenure security given the lack of residential tenancy regulations supporting security of tenure in Australia.

6. Policy development options

Policy and academic studies have long raised concerns that the CRA structure as it currently stands may not be effective in alleviating housing stress, ensuring targeting on those in greatest need or promoting tenure security or choice among low-income private renters. This report's overarching aim is to shed light on possible cost-effective reforms of demand-side housing assistance that could improve housing outcomes for low-income renters via reforms to CRA. The following sections highlight the key findings from this report and discuss in more detail the implications these have for policy development in the Australian private rental sector.

6.1 Strengths and weakness of the current CRA program structure

The findings on the current CRA program are summarised here, drawing on two key criteria proposed in Milligan, Phibbs et al.'s (2007) affordable housing policy evaluative framework: effectiveness and appropriateness.

CRA plays a part in alleviating housing stress among low-income private renters, but there remains scope for improving its performance with respect to its effectiveness and appropriateness. Effectiveness is defined as the extent to which low-income private renters' housing affordability outcomes are assisted by the current CRA structure. Appropriateness refers to how well (or not) the current CRA structure matches the needs of the low-income clients it serves, i.e. CRA's targeting accuracy.

6.1.1 Effectiveness

Out of 1.41 million low-income private renter units, nearly two-thirds or 933,000 are assisted by CRA. Lowincome private renters who are eligible for CRA pay, on average, 36 per cent of their gross income in rents prior to receiving CRA. After receipt of CRA, this average housing cost burden drops to 26 per cent. CRA also plays an important role in lifting low-income private renters out of housing stress. Around two-thirds of low-income CRA recipients would be in moderate to very severe stress if they did not receive CRA. This incidence plunges to 34 per cent after CRA is taken into account.

However, our assessment shows that CRA simply does not go far enough in reducing housing stress for significant shares of low-income private renters. Around one in three low-income CRA recipients remain in moderate to very severe housing stress after CRA is deducted from rents; nearly one in five continue to experience severe housing stress and one in ten are still in very severe housing stress after taking CRA into account.

6.1.2 Appropriateness

It is clear from our analysis that CRA suffers from a lack of targeting accuracy. Approximately 246,000 or 18 per cent of low-income private renter income units are ineligible for CRA despite being in moderate to very severe housing stress. Another 330,000 or 23 per cent are not in housing stress but are eligible for CRA. Overall, CRA's target error rate sits at 41 per cent.

It is particularly concerning that singles with no children make up 80 per cent of low-income private renter income units who are in housing stress but remain ineligible for CRA. This is a significant over-representation given singles with no children only make up 60 per cent of all low-income private renters. On the other hand, families with children are over-represented among the group who receive CRA while not in housing stress.

6.2 Impacts of CRA reforms on low-income private renters

In this report, we designed and modelled three CRA reforms, informed by outcomes of an international literature review of demand-side rental housing assistance programs in Australia and comparator countries, as well as an AHURI Policy Engagement workshop. Specifically, we modelled reforms that increased the CRA maximum rates by 30 per cent (reform 1), changed the rent thresholds to reduce targeting error on the basis of income unit type (reform 2) and changed the CRA eligibility rule to reflect housing need (reform 3). The reform impacts are summarised in

Table 20 drawing again on key criteria proposed in Milligan, Phibbs et al.'s (2007) affordable housing policy evaluative framework. We added the criteria of efficiency – the relative cost of achieving the outcomes of alternative CRA reforms taking into account the number of tenants assisted – to effectiveness and appropriateness.

We found that raising the CRA maximum rate (reform 1) would offer improvements in effectiveness, reducing the number of low-income private renter income units in housing stress by 40 per cent. However, reform 1 has no impact on appropriateness; targeting accuracy remains unchanged. Its efficiency would also remain unchanged. Although eligible CRA tenants would benefit from an increase in CRA entitlements, this would come at an equivalent rise in cost of \$1 billion per annum for all private renters or \$633,000 per annum for low-income private renters.

Changing the CRA minimum rent thresholds (reform 2) would also raise program effectiveness, reducing the number of low-income private renters in housing stress by 36 per cent. However, reform 2 has little impact on the targeting error; indeed, the appropriateness of CRA would deteriorate slightly under this reform. The reform would incur a cost of \$109 million per annum.

Changing CRA eligibility rules (reform 3) would offer the greatest improvements in the effectiveness of the CRA program, reducing the numbers of low-income tenants in housing stress by 44 per cent. Strong improvements in appropriateness would be achieved, with targeting accuracy shooting up to 100 per cent under this reform. Reform 3 also offers the strongest potential improvements in efficiency, generating savings of \$1.2 billion per annum while at the same time reducing the number of tenants in housing stress by the largest amount.

Overall, it would appear that changing the CRA eligibility rules (reform 3) would be the most desirable of the three reforms based on the criteria of effectiveness, appropriateness and efficiency. However, there are constitutional barriers to implementing CRA reforms. In particular, policy measures that expand CRA eligibility beyond social security recipients—such as reform 3—may be unconstitutional. However, there is scope for the application of constitutionally-compliant approaches to overcome these constraints. CRA could be reformed as a Commonwealth-State and Territory program, with the Australian Government making grants to state and territory governments to pay Rent Assistance to eligible persons, or expanding the Australian Government's constitutional powers to make provision for housing benefits.

Evaluation criteria	Key metric	Actual	Reform 1: Raising the CRA maximum rate	Reform 2: Re-setting rent thresholds	Reform 3: Changing eligibility rules
Effectiveness ^a	Incomes units in housing stress (low-income)		Improves [2]	Improves [3]	Improves [1]
	Incidence of housing stress (%)	60.2%	35.9%	38.7%	33.9%
	Number in housing stress ('000)	848.5	506.4	544.9	477.4
	Percentage decline in numbers in housing stress (%) ^b		40.3%	35.8%	43.7%
Appropriateness ^a	Targeting accuracy (low-income)		Unchanged [2]	Worsens slightly [3]	Improves strongly [1]
	In housing stress, but do not receive CRA	17.5%	17.5%	17.5%	0.0%
	Not in housing stress, but receive CRA	23.4%	23.4%	25.1%	0.0%
	Total target error rate	40.9%	40.9%	42.6%	0.0%
Efficiency ^a	Cost (all)		Unchanged [3]	Unchanged [2]	Improves [1]
	Government spending on CRA (million \$)	\$4,583.1	\$5,629.4	\$4,691.6	\$3,447.7
	Reform cost – actual cost (million \$)		\$1,046.30	\$108.50	-\$1,243.90
Efficiency ^a	Cost (low-income)		Unchanged [3]	Improves [2]	Improves [3]
	Government spending on CRA (million \$)	\$3,024.7	\$3,658.1	\$3,147.6	\$2,795.1
	Reform cost – actual cost (million \$)		\$633.40	\$122.90	-\$229.60

Table 20: Table 20: Effectiveness, appropriateness and efficiency of CRA reforms, 2017

Note:

a. Rankings are provided in parentheses, with a rank of 1 representing the greatest improvement achieved against an evaluation criteria. b. This is calculated as (number in housing stress under reform – number in housing stress under actual) / number in housing stress under actual.

Source: Authors' summary from tables in chapter 5.

6.3 Likely effect of changes in demand-side rental housing assistance on market rents

If CRA increases are, to a significant degree, absorbed into higher market rents, these 'rent effects' will blunt the effect of reforms that seek to improve affordability by increasing CRA payments. We modelled the effect of CRA on market rents, and found that CRA is likely to be shifted into higher rents in disadvantaged areas. In moderately to severely disadvantaged areas, 6.6 per cent of any increase in CRA can be expected to be 'lost' to the higher rents that will result. In severely disadvantaged areas, 32.4 per cent of a modelled increase in CRA is absorbed by higher rents.

Though CRA is likely to be shifted into higher rents for those living in severely disadvantaged areas, these effects make little impact in terms of dampening reform effectiveness. Low-income tenants in severely disadvantaged areas often pay such low rents that many fall below the rent thresholds to qualify for CRA (under actual or reformed parameters).

There are also other policy concerns that need to be accounted for in future development of CRA reforms. First, when CRA is shifted into higher market rents, this affects not only CRA recipients but also non-CRA eligible tenants living in disadvantaged areas. For instance, some low-income workers living in disadvantaged areas might not meet CRA eligibility requirements, but will suffer a rise in the rents they face as a result of the capitalisation effects of CRA into market rents. Second, tenants residing in disadvantaged areas tend to have lower average incomes, so they face tighter credit constraints than higher income tenants. When tenants in disadvantaged areas face a rise in rents, they are less able to respond by exiting the rental sector into home ownership due to these credit constraints. Third, some government spending on CRA is likely to be 'lost' to capitalisation effects (in other words, the tenant's higher benefit income will be partially offset by landlords charging higher rents). Our estimates (see Table 16) show that raising the CRA maximum cap (reform 1) will lead to the largest 'loss' of \$27.9 million per annum, while we can expect \$7.3 million and \$12.3 million per annum to be 'lost' through reforms 2 and 3 respectively.

A relatively low elasticity of new housing supply in low-value housing market segments is a source of market failure that contributes to the presence of capitalisation effects in disadvantaged areas. When CRA increases, any CRA-induced rise in housing consumption by renters is unlikely to be matched quickly by new housing supply in disadvantaged areas. Furthermore, tenants residing in disadvantaged areas tend to have lower average incomes, so they face tighter credit constraints than higher income tenants. When tenants in disadvantaged areas face a rise in rents, few are therefore able to respond by exiting the rental sector into home ownership. These capitalisation effects will likely be weakened if housing policy options are implemented to promote the flow of new housing supply in low-value markets.

6.4 Final remarks: other private rental policy development options

6.4.1 Demand-side subsidy reforms

The analysis in this report has been limited to assessments of three separate CRA reform options. While we have attempted to model a diverse set of reforms, other reform options exist that would benefit from evaluation. For instance, the current CRA co-payment rate is 75 per cent. There is scope for examining the extent to which altering the co-payment rate might affect affordability outcomes for low-income private renters and government budgets. The CRA maximum rate could potentially be reformed such that it is geographically differentiated, with CRA offering more assistance in high-rent regions (Yates, Ong et al. 2016).

Furthermore, might two or more CRA reforms be combined to enhance affordability outcomes for a larger group of low-income renters while maintaining cost neutrality? For example, the modelled saving generated by reform 3 could be retained to fund an increase in the cap on the CRA maximum rate. There exists a strong case to consider combining reform options 1 and 2 – raising the CRA maximum rate and re-setting the minimum rent thresholds – as a relatively cost neutral package. The savings from reform 2 could be diverted towards helping to fund the cost of reform 1. The two together would help reduce housing cost burdens, while achieving some improvements in targeting. These are the likely key outcomes of reform 3, which could be achieved only by overcoming constitutional limitations.

The report consistently uses the 30 per cent benchmark for assessing housing stress among low-income private renters. We acknowledge this is a contested yardstick, particularly if applied to very low-income households. Moreover, social housing (including community housing) still uses a 25 per cent benchmark for most client cohorts. We acknowledge other housing stress measures exist, including variations of the housing cost burden rule from 30 per cent to some other percentage of income (Rowley and Ong 2012), the residual income approach (Burke, Stone et al. 2011) and subjective financial wellbeing measures (Rowley and Ong 2012). A future comprehensive assessment of proposed reforms would test reform outcomes under different housing stress benchmarks.

The report has been primarily concerned with distributional outcomes among general low-income private rental market. Future research should develop a more nuanced examination of the specific ways in which CRA reforms might affect subsectors in which CRA is available, such as general private rental market versus community housing, Indigenous community housing, retirement villages, boarding or lodging houses, and so on. There remains scope for conducting important research into these subsectors because, in contexts where rents are affordability-related (like community housing), reducing CRA for some groups could have an adverse revenue impact on providers (subject to compensatory arrangements).

As noted in the preceding section, when CRA is shifted into higher market rents, this affects not only CRA recipients but also non-CRA eligible tenants living in affected areas. The current estimates of the capitalisation effects of CRA are constrained by data limitations so future research should look to improve data availability to enhance the accuracy of the estimates. For instance, it would be helpful to test for the existence of a positive correlation between the maximum level of CRA and price per unit of housing services. However, the latter is not available in the HILDA Survey. The hedonic rent model reported in chapter 3 would also benefit from improvements in robustness if additional controls for dwelling quality could be included in the model. However, this again is not possible due to a lack of variables on dwelling quality in the HILDA Survey.

While beyond the scope of this report, these are all policy-relevant options for future investigations.

6.4.2 Supply-side reforms

The CRA reforms we have modelled are likely to promote tenure security for the reform 'winners' to the extent that they alleviate the risk of evictions due to rent arrears. However, our findings indicate that the reforms will have minimal impact on low-income private renters' ability to enter home purchase. Generally, since no conditions are imposed on landlords of recipient tenants, CRA fails to address concerns over service and property quality and tenure insecurity in Australia's lightly regulated private rental market (Hulse, Milligan et al. 2011). There remains scope for exploring reform options that target private landlords, such as the use of financial incentives to landlords to reduce rents or offer tenants greater control over the length of their leases. Residential tenancy regulations could also be reformed to promote tenure security for tenants, which include tenant empowerment in regard to decisions to extend leases. Law reform that removes the scope for 'without grounds' terminations by landlords while providing only for 'just grounds' terminations (Martin 2018) will go some way towards improving tenure security for tenants that cannot be achieved through CRA reform.
References

- Australian Bureau of Statistics (2016) Census of Population and Housing: Census Dictionary, 2016, Australian Bureau of Statistics, Canberra.
- Australian Council of Social Service (ACOSS) (2020) Budget Priorities Statement 2020-21, accessed 15 August 2019, https://www.acoss.org.au/wp-content/uploads/2020/02/FINAL-ACOSS-Budget-Priority-Statement-2020-2021.pdf.
- Australian Council of Social Service (ACOSS) (2018) Budget Priorities Statement Federal Budget 2018-19, accessed 26 March 2020, <u>https://www.acoss.org.au/wp-content/uploads/2018/02/ACOSS-Budget-Priorities-Statement-2018-19_FINAL.pdf</u>.
- Australian Institute for Health and Welfare (AIHW) (2019) Housing Assistance in Australia, AIHW, Canberra.
- Bertolet, D. (2020) 'A Federal One-Two Punch to Protect Renters—Pandemic and Beyond', *Sightline Institute newsletter*, 24 April <u>https://www.sightline.org/</u>.
- Brewer, M., Browne, J., Emmerson, C., Hood, A., and Joyce, R. (2019) 'The curious incidence of rent subsidies: Evidence of heterogeneity from administrative data', *Urban Economics*, 114, 103198.
- Burke, T., Stone, M. and Ralston, L. (2011) *The Residual Income Method: A New Lens on Housing Affordability and Market Behaviour*, Final Report No.176, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/176</u>.
- Chartered Institute of Housing (2018) Missing the Target: Is Targeted Affordability Funding Doing Its Job?, Chartered Institute of Housing, Coventry.
- Chordia, S., Lynch, A. and Williams, G. (2015) *Williams v Commonwealth [No. 2]*: Commonwealth executive power and spending after *Williams [No. 2]*, *Melbourne University Law Review*, 306-330.
- Daley, J. and Coates, B. (2018) *Housing Affordability: Reimagining the Australian Dream*, Melbourne: Grattan Institute, accessed 15 August 2019, <u>https://grattan.edu.au/wp-content/uploads/2018/03/901-Housing-affordability.pdf</u>.
- Daley, J., Coates, B., Wiltshire, T., Emslie, O., Nolan, J. and Chen, T. (2018) *Money in Retirement: More than Enough,* Grattan Institute, Melbourne.
- Daley, J., Duckett, S., Goss, P., Norton, A., Terrill, M., Wood, D., Wood, T., and Coates, B. (2019) Commonwealth Orange Book 2019, Grattan Institute, Melbourne.
- Davidoff, I. and Leigh, A. (2013) 'How do stamp duties affect the housing market', Economic Record, vol. 89 no. 286: 396-410.
- Department of Human Services (2017) A Guide to Australian Government Payments: 20 September 31 December 2017, accessed 1 August 2019, <u>https://www.servicesaustralia.gov.au/organisations/about-us/publications-and-resources/guide-australian-government-payments/historical-versions-guide-australian-government-payments.</u>
- Department of Human Services (2020) A Guide to Australian Government Payments: 20 September 30 June 2020, accessed 11 May 2020, <u>https://www.servicesaustralia.gov.au/organisations/about-us/publications-and-resources/</u> guide-australian-government-payments/historical-versions-guide-australian-government-payments.
- Desmond, M. and Perkins, K.L. (2016) 'Are landlords overcharging housing voucher holders?', *City and Community*, 15(2), 137-162.

- Dockery, AM., Feeny, S., Hulse, K., Ong, R., Saugeres, L., Spong, H., Whelan, S. and Wood, G. (2008) *Housing Assistance and Economic Participation*, National Research Venture 1 Final Research Paper, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/nrv-research-papers/nrv1-final</u>.
- Eslake, S. (2013) Australian Housing Policy: 50 Years of Failure, Address to the 122nd Annual Henry George Commemorative Dinner, The Royal Society of Victoria, Melbourne, <u>https://www.prosper.org.au/2013/09/03/saul-eslake-50-years-ofhousing-failure/</u>.
- Field, T. (1983) 'Pensioners who rent problems and alternatives', Social Security Journal, June: 23-37.
- Finkel, M. and Buron, L. (2001) Study on Section 8 Voucher Success Rates: Quantitative Study of Success Rates in Metropolitan Areas, ABT Associates, Cambridge, Massachusetts.
- Fox, R. and Tulip, P. (2014) *Is Housing Overvalued?*, Research Discussion Paper RDP 2014-06, Reserve Bank of Australia, accessed 1 April 2019, <u>https://www.rba.gov.au/publications/rdp/2014/pdf/rdp2014-06.pdf</u>.
- Gibbons, S. and Manning, A. (2006) 'The incidence of UK Housing Benefit: evidence from the 1990s reforms', *Journal of Public Economics*, 90(4), 799-822.
- Gould E.I. (2018) 'What do we know about housing choice vouchers', Regional Science and Urban Economics, vol 30: 1-5.
- Grislain-Letremy, C. and Trevien, C. (2014) The Impact of Housing Subsidies on the Rental Sector: The French Example, Centre de Recherche en Economie et Statistique, Working Papers: 2014-24, accessed 15 August 2019 <u>https://ideas. repec.org/p/nse/doctra/g2014-08.html</u>.
- Harvey, D. (1974) 'Class-monopoly rent, finance capital and the urban revolution', Regional Studies, vol. 8: no. 3-4: 239-255.
- Hendershott, P.H., Ong, R., Wood, G. and Flatau, P. (2009) 'Marital history and home ownership: Evidence from Australia', Journal of Housing Economics, 18(1), 13-24.
- Henry, K., Harmer, J., Piggott, J., Ridout, H. and Smith, G. (2010) *Australia's Future Tax System*, Report to the Treasurer, accessed 15 August 2019 <u>http://www.taxreview.treasury.gov.au</u>.
- Hickman, P., Kemp, P., Reeve, K. and Wilson, I. (2017) 'The impact of the direct payment of housing benefit: Evidence from Great Britain', *Housing Studies*, Vol 32(8) pp.1105-1126.
- Hulse, K. (2002) *Demand Subsidies for Private Renters: A Comparative Review*, Positioning Paper No. 32, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/position-papers/32</u>.
- Hulse, K., Milligan, V. and Easthope, H. (2011) Secure Occupancy in Rental Housing: Conceptual Foundations and Comparative Perspectives, AHURI Final Report No.170, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/170</u>.
- Hyslop, D. and Rea, D. (2018) *Do housing allowances increase rents? Evidence from a discrete policy change*, Motu Working Paper 18-10, Motu Economic and Public Policy Research, accessed 27 August 2019, <u>https://ageconsearch.umn.edu/record/290501?ln=en</u>.
- Katz, L.F., Kling, J.R. and Liebman, J.B. (2001) 'Moving to Opportunity in Boston: early results of a randomized mobility experiment', *Quarterly Journal of Economics*, 116(2), 607-654.
- Kemp, P. (2007a) 'Housing allowances in context', in Kemp, P.A. (ed) *Housing Allowances in Comparative Perspective*, Policy Press, Bristol: pp. 1-16.
- Kemp, P. (2007b) 'Housing allowances in the advanced welfare states', in Kemp, P.A. (ed) *Housing Allowances in Comparative Perspective*, Policy Press, Bristol: pp. 265-289.
- Kofner, S. (2018) 'Country Report—Germany', in Martin, C., Hulse, K. and Pawson, H. with Hayden, A., Kofner, S., Schwartz, A. and Stephens, M. (2018), *The Changing Institutions Of Private Rental Housing: An International Review*, Final Report No. 292, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/292</u>, doi:10.18408/ahuri-7112201.
- Laferrere, A. and Le Blanc, A. (2004), 'How do housing allowances affect rents? An empirical analysis of the French case', Journal of Housing Economics, 13(1), 36-67.
- Marshall, A. (1890) *Principles of Economics*, 8th edition, London: Macmillan and Co., Accessed 12 August 2019 <u>https://oll.libertyfund.org/titles/marshall-principles-of-economics-8th-ed</u>.

- Martin, C. (2018) 'Improving housing security through tenancy law reform: alternatives to long fixed term agreements', *Property Law Review* 7(184), 2018. Available at SSRN: <u>https://ssrn.com/abstract=3282848</u>.
- Martin, C., Hulse, K. and Pawson, H. with Hayden, A., Kofner, S., Schwartz, A. and Stephens, M. (2018) *The Changing Institutions Of Private Rental Housing: An International Review*, Final Report No. 292, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/292</u>, doi:10.18408/ahuri-7112201.
- Marx, K. (2000) [1932] Economic and Philosophic Manuscripts of 1844. Accessed 12 August 2019 <u>https://www.marxists.org/archive/marx/works/download/pdf/Economic-Philosophic-Manuscripts-1844.pdf</u>.
- Mazzucato, M. (2018) The Value of Everything: Making and Taking in the Global Economy, Allen Lane, London.
- McAllister, J., St John, S. and Johnson, A. (2019) Accommodation Supplement: the Wrong Tool to Fix the House, Child Poverty Action Group, Auckland.
- McClure, K. and Schwartz, A. (2020) 'Renters still left out in the cold despite temporary coronavirus protection', *The Conversation*, 23 April, <u>https://theconversation.com/renters-still-left-out-in-the-cold-despite-temporary-</u> <u>coronavirus-protection-136550</u>.
- Milligan, V. Phibbs, P. Gurran, N. and Fagan, K. (2007) *Approaches to Evaluation of Affordable Housing Initiatives,* Research Paper 7, NRV3, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/</u> <u>research/nrv-research-papers/nrv3-7</u>.
- Mission Australia (2018) 2018-19 Pre-Budget Submission, accessed 20 April 2020, <u>https://www.missionaustralia.com.au/</u> publications/position-statements/elections-and-budget.
- Mortgage Choice (2019) Calculating Rental Yield, accessed 1 April 2020, <u>https://www.mortgagechoice.com.au/home-loans/home-buying-advice/what-is-rental-yield/</u>.
- New Zealand Ministry of Social Development (2017) The impact of rising housing costs on Accommodation Supplement recipients, NZMSD, Wellington.
- Newman, S.J. (2007) 'Housing allowances American style: The Housing Choice Voucher program', in Kemp, P.A. (ed) Housing Allowances in Comparative Perspective, Policy Press, Bristol: pp. 87-104.
- OECD (Organisation for Economic Cooperation and Development) (n.d.), *What are Equivalence Scales?*, accessed 20 April 2020, <u>http://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf</u>.
- Ong, R., Jefferson, T., Wood, G., Haffner, M. and Austen, S. (2013) Housing Equity Withdrawal: Uses, Risks, and Barriers to Alternative Mechanisms in Later Life, Final Report No. 217, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/217</u>.
- Ong, R., Phelps, C., Rowley, S. and Wood, G. (2018) 'Spatial and temporal patterns in housing supply: a descriptive analysis', *Urban Policy and Research*, 36(3), 287-303.
- Productivity Commission (2017) Introducing Competition and Informed User Choice into Human Services: Reforms to Human Services, Report No. 85, Productivity Commission, Canberra.
- Productivity Commission (2020), Report on Government Services 2020, https://www.pc.gov.au/research/ongoing/ report-on-government-services/2020.
- Prosser, B. and Leeper, G. (1994) 'Housing affordability and changes to Rent Assistance', Social Security Journal, June: 40-62.
- Reference Group on Welfare Reform to the Minister for Social Services (McClure Report) (2015) A New System for Better Employment and Social Outcomes, accessed 25 August 2019 <u>https://www.dss.gov.au/sites/default/files/ documents/02_2015/dss001_14_final_report_access_2.pdf</u>.
- Ricardo, D (1821) The Principles of Political Economy and Taxation, 3rd edition, J. Murray, London.
- Rosenbaum, J.E. (1995) 'Changing the geography of opportunity by expanding residential choice: lessons from the Gautreaux program', *Housing Policy Debate*, 231, 239-261.
- Rowley, S. and Ong, R. (2012) *Housing Affordability, Housing Stress and Household Wellbeing in Australia*, Final Report No. 192, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/192</u>.

Ryan-Collins, J., Lloyd, T. and Macfarlane, L. (2017) Rethinking the Economics of Land and Housing, Zed Books, London.

- Senate Economics Reference Committee (2015) *Out of Reach? The Australian Housing Affordability Challenge*, May, accessed 17 April 2020, <u>https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/</u><u>Affordable_housing_2013/Report</u>.
- Smith, A. (2007) [1776] Inquiry into the Nature and Causes of the Wealth of Nations, accessed 12 August 2019, <u>http://www.ibiblio.org/ml/libri/s/SmithA_WealthNations_p.pdf</u>.
- Susin, S. (2002) 'Rent vouchers and the price of low-income housing', Journal of Public Economics, 83, 109-152.
- Threshold (2019) Topping Up—the Cost of HAP: a Survey on the Housing Assistance Payment, Threshold, Dublin.
- Thorns, D. (2006) 'The remaking of housing policy: the New Zealand Housing Strategy for the 21st Century', Housing Finance International, June 2006: 20-28.
- Tighe, R., Hatch, M. and Mead, J. (2017) 'Source of income discrimination and fair housing', *Journal of Planning Literature*, 32(1):3-15.
- Viren, M. (2013) 'Is the housing allowance shifted to rental prices?', Empirical Economics, 44, 1497-1518.
- Ward, C. and Aalbers, M. (2016) "The shitty rent business": what's the point of land rent theory?, Urban Studies, 53(9)1760-1783.
- Wood, G. and Ong, R. (2008) Redesigning AHURI's Australian Housing Market Micro-simulation Model, Report, November, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/ research-papers/redesigning-ahuris-australian-housing-market-microsimulation-model</u>.
- Wood, G. and Ong, R. (2009) The Dynamics of Housing Affordability: Movements In and Out of Housing Affordability Stress 2001-2006, Final Report No. 133, Australian Housing and Urban Research Institute, Melbourne, Melbourne, https://www.ahuri.edu.au/research/final-reports/133.
- Wood, G., Cigdem-Bayram, M. and Ong, R. (2017) Australian Demographic Trends and Implications for Housing Assistance Programs, Final Report No. 286, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/286</u>, doi:10.18408/ahuri-5303901.
- Wood, G., Forbes, M. and Gibb, K. (2005) 'Direct subsidies and housing affordability in Australian private rental markets', Environment and Planning C: Government and Policy, 23, 759-783.
- Wood, G., Ong, R. and McMurray, C. (2011) The Impacts of the Henry Review Recommendations on the Private Rental Market: Savings Income Discount and Rent Assistance, Final Report No. 175, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/175</u>.
- Wood, G., Smith, S.J., Ong, R. and Cigdem, M. (2013) *The Edges of Home Ownership*, Final Report No. 216, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/final-reports/216</u>.
- Yates, J. (2007) Housing Affordability and Financial Stress, NRV3 Research Paper 6, Australian Housing and Urban Research Institute, Melbourne, <u>https://www.ahuri.edu.au/research/nrv-research-papers/nrv3-6</u>.
- Yates, J. (2012) 'Housing subsidies', in Clapham, D., Clark, W. and Gibb, K. (eds), *The SAGE Handbook of Housing Studies*, Chapter 21, Sage, London: 397-418.
- Yates, J., Ong, R. and Bradbury, B. (2016) *Housing as the Fourth Pillar of Australia's Retirement Income System,* Committee for Sustainable Retirement Incomes Discussion Paper, accessed on 15 August 2019, <u>https://cfsri.files.wordpress.com/2015/09/yates-ong-bradbury-csri-work-stream-1-discussion-paper-5-aug.pdf</u>.



Australian Housing and Urban Research Institute

Level 12, 460 Bourke Street Melbourne VIC 3000 Australia +61 3 9660 2300 information@ahuri.edu.au ahuri.edu.au twitter.com/AHURI_Research facebook.com/AHURI.AUS

in Australian Housing and Urban Research Institute