



The opportunity of residential property investment vehicles in enhancing affordable rental housing supply

authored by

Graeme Newell, Chyi Lin Lee and Valerie Kupke

for the

Australian Housing and Urban Research Institute

at The University of Western Sydney

May 2015

AHURI Positioning Paper No. 166

ISSN: 1834-9250 ISBN: 978-1-922075-90-1



Authors	Newell, Graeme	The University of Western Sydney	
	Lee, Chyi Lin	The University of Western Sydney	
	Kupke, Valerie	University of South Australia	
Title		idential property investment vehicles le rental housing supply	
ISBN	978-1-922075-90-1		
Format	PDF		
Key words		nvestment vehicle, affordable housing, operty fund, REIT, superannuation stor survey	
Editor	Anne Badenhorst	AHURI National Office	
Publisher	Australian Housing ar Melbourne, Australia	nd Urban Research Institute	
Series	AHURI Positioning Paper; no. 166		
ISSN	1834-9250		
Preferred citation	residential property in affordable rental hous No.166. Melbourne: A Research Institute. Av <http: th="" www.ahuri.edu<=""><th>nd Kupke, V. (2015) The opportunity of vestment vehicles in enhancing sing supply, AHURI Positioning Paper sustralian Housing and Urban vailable from: au/publications/projects/p72031>. accessed this report: DD MM YYYY].</th></http:>	nd Kupke, V. (2015) The opportunity of vestment vehicles in enhancing sing supply, AHURI Positioning Paper sustralian Housing and Urban vailable from: au/publications/projects/p72031>. accessed this report: DD MM YYYY].	

ACKNOWLEDGEMENTS

This material was produced with funding from the Australian Government and the Australian 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 comprises a network of university Research Centres across Australia. Research Centre contributions, both financial and in-kind, have made the completion of this report possible.

DISCLAIMER

AHURI Limited is an independent, non-political body which has supported this project as part of its program of research into housing and urban development, which it hopes will be of value to policy-makers, researchers, industry and communities. The opinions in this publication reflect the views of the authors and do not necessarily reflect those of AHURI Limited, its Board or its funding organisations. No responsibility is accepted by AHURI Limited or its Board or its funders for the accuracy or omission of any statement, opinion, advice or information in this publication.

AHURI POSITIONING PAPER SERIES

AHURI Positioning Papers is a refereed series presenting the preliminary findings of original research to a diverse readership of policy-makers, researchers and practitioners.

PEER REVIEW STATEMENT

An objective assessment of all reports published in the AHURI Positioning Paper Series by carefully selected experts in the field ensures that material of the highest quality is published. The AHURI Positioning Paper Series employs a double-blind peer review of the full report, with strict anonymity observed between authors and referees.

CONTENTS

LIS	T OF T	ABLES	V
AC	RONY	лs	VI
EXI	ECUTIV	/E SUMMARY	1
1	INTE	ODUCTION	3
1.1	Back	ground	3
1.2	Polic	y context	3
1.3	Repo	ort structure	4
2	LITE	RATURE REVIEW	6
2.1	Intro	duction	6
2.2	Defir	nitions	6
2.3	Priva	te rental sector and housing stress	6
2.4	Inves	stment in the private rental sector	7
2.5	Inves	stment in affordable rental housing	8
2.6		utional investment and residential investment vehicles	
2.7	The	role of residential investment vehicles	
	2.7.1	Housing investment trusts (HITs)	
	2.7.2	Real estate investment trusts (REITs): Growing globally	
	2.7.3	Residential REITs	
	2.7.4	Other vehicles	
2.8	Hous	sing as an effective investment vehicle	
	2.8.1	Performance and portfolio management	
	2.8.2	The inflation-hedging effectiveness of housing	
2.9		mary	
3		TEXT FOR RESIDENTIAL PROPERTY INVESTMENT	
3.1		erannuation funds in Australia	
3.2		sion funds globally	
3.3		reign wealth funds	
3.4	•	erty funds management in Australia	
3.5		national context of residential property investment: REITs	
	3.5.1	US REITs	
	3.5.2	Canada REITs	
	3.5.3	Japan REITs	
	3.5.4	Singapore REITs	
	3.5.5	France REITs	
	3.5.6	UK REITs	
	3.5.7	Other countries	
3.6		national context of residential property investment: unlisted vehicles	
	3.6.1	US status	
2.7		UK status	
J./	Case	e study 1: Residential property performance: Netherlands social housing.	პ0

3.8	Case	e study 2: UK institutional investor survey on residential property investment33
3.9	Sum	mary of context for residential property investment34
4		VEY OF AUSTRALIAN INSTITUTIONAL INVESTORS REGARDING IDENTIAL PROPERTY INVESTMENT35
4.1	Conf	ext
4.2	Surv	ey methodology35
4.3	Issu	es for residential property investment: superannuation funds
	4.3.1	Current property types in portfolio
	4.3.2	Investing in the residential private rental sector36
	4.3.3	Factors influencing the decision to invest in residential rental property 37
	4.3.4	Issues relating to residential private rental property investment38
	4.3.5	Desirable features for effective residential investment vehicles38
	4.3.6	Potential problems of investing in residential investment vehicles39
4.4		es for residential property investment: Property Investment Companies s)40
	4.4.1	Current property types in portfolio40
	4.4.2	Factors influencing the decision to invest in residential property40
	4.4.3	Issues relating to residential private rental property investment41
	4.4.4	Desirable features for effective residential investment vehicles41
	4.4.5	Potential problems of investing in residential investment vehicles42
4.5	Key	messages and implications43
5	IMP	LICATIONS FOR RESIDENTIAL PROPERTY INVESTMENT VEHICLES 45
5.1	Key	issues45
5.2	AHU	RI Final Report45
REI	FEREN	ICES47

LIST OF TABLES

Table 1: Selected Australian superannuation funds: 2014	. 17
Table 2: Major unlisted wholesale property funds	. 18
Table 3: Selected international pension funds: 2014	. 19
Table 4: Property funds management profile: Australia: 2014	. 20
Table 5: Residential property funds profile: Australia: 2006–14	.21
Table 6: Australian asset class performance: December 2013	. 21
Table 7: Selected unlisted residential property funds, 2014	. 23
Table 8: Leading US residential REITs: 2014	. 25
Table 9: Main residential REITs in selected REIT markets, 2014	. 26
Table 10: Selected unlisted residential funds, 2013	. 28
Table 11: Netherlands asset performance: 2013	. 30
Table 12: Risk-adjusted performance analysis, 1999–2013	. 31
Table 13: Inter-asset correlation matrix, 1999–2013	. 31
Table 14: Property sub-sector performance, 2013	. 32
Table 15: Property sub-sector risk-adjusted performance analysis, 1999–2013	. 32
Table 16: Property sub-sector correlation matrix, 1999–2013	. 32
Table 17: Residential versus social housing, 1999–2013	. 33
Table 18: Survey respondent profile: Superannuation funds and PICs	. 36
Table 19: Importance of factors influencing a superannuation fund's decision to invite in residential property	
Table 20: Importance of residential private rental sector investment issues	. 38
Table 21: Importance of desirable characteristics for an effective resider investment vehicle: superannuation funds	
Table 22: Potential problems of investing in residential investment vehicles	. 40
Table 23: Importance of factors influencing an institutional investor's decision to investorial property: PICs	
Table 24: Importance of residential private rental sector investment issues: PICs	. 41
Table 25: Importance of desirable characteristics for an effective resident investment vehicle: PICs	
Table 26: Potential problems of investing in residential investment vehicles: PICs	.43

ACRONYMS

AHURI Australian Housing and Urban Research Institute Limited

AIHW Australian Institute of Health and Welfare

AUM Assets under Management

ASX Australian Securities Exchange

COAG Council of Australian Governments

CRA Commonwealth Rent Assistance

CSHA Commonwealth State Housing Agreement

HIT Housing Investment Trust

IPD Investment Property Databank

IPF Investment Property Forum

NAHA National Affordable Housing Agreement

NAREIT National Association of Real Estate Investment Trusts

NRAS National Rental Affordability Scheme

PIC Property investment company

PRA Private Rent Assistance

REIA Real Estate Institute of Australia

REIT Real Estate Investment Trust

SWF Sovereign wealth fund

UK United Kingdom

US United States of America [United States]

EXECUTIVE SUMMARY

Institutional investors currently play a negligible role in the private rental market in Australia. Their lack of involvement in the private rental sector has been described as a structural weakness in the Australian rental market, and is at variance with institutional investment in residential property in international jurisdictions such as the United Kingdom (UK), Scandinavia and United States (US).

This research study investigates the effectiveness of residential investment vehicles in enhancing the supply of private rental properties in Australia and elsewhere. It explores the current opportunity to develop an effective residential investment vehicle to expand the supply of private rental housing in Australia, and to contribute to meeting Australia's housing needs in the future.

This Positioning Paper utilises both international and local evidence, including an AHURI survey of Australian institutional investors, to identify the broad context to residential property investment in Australia and the current and future role of property investment vehicles and institutional investors such as superannuation funds. The implications for housing supply in Australia are discussed in this context.

The report finds that while Australian superannuation funds have significant commercial property portfolios, they typically lack exposure to residential property investment. This reflects in the main funds' concerns over the role of residential property in their investment portfolios and the general lack of listed and unlisted residential property investment vehicles suited to Australian superannuation funds.

This finding contrasts with the experience of the US and UK, where there exists both increasing investor interest in, and an increasing range of, listed and unlisted residential investment vehicles which are available to pension funds and other institutional investors.

A survey of Australian institutional investors' views of residential property investment was conducted with insightful results identifying critical factors influencing their decision to invest in residential property, desirable features for an effective residential investment vehicle and potential problems with residential property investment vehicles for superannuation funds.

The AHURI survey highlighted significant challenges and opportunities to increased levels of residential property in Australian institutional investor property portfolios. In particular, it found that:

- → Residential property does not feature at significant levels in Australian superannuation fund portfolios and, in most cases, is not included in their property portfolios.
- → Institutional investors currently with residential property indicate that they plan to exit the sector over the next five years.
- → Key considerations for investment in residential property by superannuation funds are performance analysis (e.g. returns, cash flow) and the contribution of residential property to the overall portfolio (e.g. diversification).
- → The lack of well-structured residential investment vehicles and low returns are critical issues in residential property investment.
- → The features most desired in an effective residential investment vehicle are being managed by an experienced manager, having a diversified portfolio by location and delivering stable income returns with low debt.
- → Potential low returns, poor market information and low quality portfolios are key deterrents for investment in affordable housing by institutional investors.

Key considerations in building industry confidence in residential property as a viable investment opportunity for institutional investors in Australia identified in the AHURI survey include:

- → The development of effective residential property investment vehicles (both listed and unlisted) that meet the investment requirements of superannuation funds.
- → The identification of enabling strategies that can be used to increase the level of residential property in institutional investor portfolios in Australia.

This AHURI Positioning Report provides a broad context for the Final Report of this study, which will interrogate specific issues raised both in the AHURI survey of institutional investors and reported experience of international jurisdictions, with a view to formulating possible enabling strategies and policy responses, and additionally provide modelling for a successful residential investment vehicle to articulate the potential role of residential property in institutional investor portfolios such as superannuation funds in Australia.

1 INTRODUCTION

1.1 Background

Institutional investors currently play a negligible role in the private rental market in Australia. Their lack of involvement in the private rental sector has been described as a structural weakness in the Australian rental market (Berry 2000).

A large number of AHURI studies have examined this structural weakness and proposed strategies to encourage large-scale institutional investment in the private rental market (Berry et al. 2004; Lawson et al. 2012; Milligan et al. 2004; Milligan et al. 2013). Berry et al. (2004) advocated several approaches to encourage residential supply including drawing on private funding sources. More recently, Lawson Milligan and Yates (2012) proposed the use of Housing Supply Bonds as a mechanism for raising private finance. Milligan et al. (2013) suggested that Real Estate Investment Trusts (REITs) could be an effective vehicle in the Australian context for institutional investment in the private rental sector.

In the international context, residential investment vehicles such as REITs and unlisted funds have been introduced to encourage investment in the private rental market and enhance the supply of rental properties. Residential REITs are used widely in the US, for example, and have been accepted widely by US institutional investors. Residential investment vehicles have proved to be not only an effective investment product and encourage institutional investment in housing, but also an innovative way to create portfolios of rental properties to meet the demands of renters. Similarly, institutional investors in Switzerland and the Netherlands play a critical role in enhancing the supply of rental properties in their home countries.

In the UK, legislation for housing investment trusts (HITs) was introduced in 1996. However, no housing investment trust has been developed to date due to the high level of scepticism of the effectiveness of these trusts among institutional investors (Crook & Kemp 2002). Although US residential REITs have been successful in enhancing the supply of rental properties, the US model primarily involves high-quality rental properties for moderate- or high-income households. The applicability of the US model to the Australian context is discussed in Section 2.7.3.

Numerous AHURI studies have built a substantial body of research evidence on affordable rental housing. The studies have demonstrated that the current private rental market fails to meet the needs of all renters, particularly low-income renters (Wulff et al. 2011; Hulse et al. 2012; Lawson et al. 2012; Hulse et al. 2014). Given that a third of private renters in Australia have incomes in the bottom two income quintiles (Hulse et al. 2012; p.28), this finding is extremely concerning. 45 per cent of low-income households in the private rental market (AIHW 2011), and around 63 per cent of long-term renters, defined as renting for 10 years or more (Stone et al. 2011), identified as being in housing stress (Wulff et al. 2011).

The former National Housing Supply Council (2012) estimated that there was a realised shortfall of around 539 000 rental properties for low-income households in 2011. Institutional investment in residential property is seen as a critical strategy in expanding the supply of affordable rental housing for low-income renters and subsequently in reducing housing stress.

This study, therefore, explores the current opportunity in Australia to develop an effective residential investment vehicle to expand the supply of rental housing, particularly affordable rental housing and contribute to meeting Australia's housing needs in the medium to long term.

1.2 Policy context

The private rental residential sector in Australia is an important source of accommodation to meet housing demand. In 2014, it was estimated that the Australian private rental market includes 2.4 million rental dwellings with 5 million renters across Australia (IBISWorld 2014). The important role of private rental dwellings in meeting the needs of all renters, particularly low-

income renters, has been recognised by the Australian Government. In 2009, the Council of Australian Governments (COAG) agreed that governments should improve housing affordability and ensure that all Australians have access to affordable, safe and sustainable housing via the National Affordable Housing Agreement (NAHA).¹

Numerous initiatives have been introduced under a range of programs to increase the supply of rental housing, particularly for lower income households. In Australia, Private Rent Assistance (PRA) and Commonwealth Rent Assistance (CRA) are the two major government initiatives which assist eligible households to access housing in the private rental sector (AIHW 2014).

Private Rent Assistance aims to assist eligible low-income households who are experiencing difficulty in securing private rental accommodation and offers a range of assistance options such as bond loans and tenancy guarantees. PRA is funded under the NAHA directly by the states and territories or by not-for-profit organisations funded by state or territory governments (AIHW 2014).

The CRA program is funded by the federal government through Centrelink. It is a tax-free income supplement payment for people in receipt of social security income support payments or benefits who are renting in the private rental market (AIHW 2014).

A number of initiatives aimed at increasing the supply of affordable rental housing have been implemented in past years. The Social Housing Initiative, funded by the Australian Government over three and a half years (2008–09; 2011–12), led to the construction of approximately 19 700 new social housing dwellings across the states and territories (KPMG 2012). A recent AHURI report found that a large proportion of these dwellings had since been transferred to community housing organisations, enabling the recipient organisations to access private finance in the future (Milligan et al. 2013)².

Another important initiative was the National Rental Affordability Scheme (NRAS), which commenced in 2008. The scheme was designed to increase large-scale private investment in, and the innovative delivery of, affordable rental housing, with an initial target of 50 000 new dwellings by 2012 (later extended to 2014). The scheme offered financial incentives (tax offset or cash) to landlords or entities to build and rent dwellings to low and moderate income households at a rate that is at least 20 per cent below market rent.

However, only 17 645 units have been built since its implementation (NRAS 2014), and in 2014, the Australian Government announced that it would not proceed with Round 5 of the NRAS scheme as it had failed to achieve its delivery targets (API 2014). This outcome highlights the inherent challenges in securing large-scale private investment in private rental properties, including affordable rental properties.

It is clear that an innovative approach to the construction and supply of private rental housing for lower income households is required. If the deficiency of affordable rental properties is not addressed effectively, increasing numbers of Australians will require housing assistance services at significant and increasing cost to communities and governments into the future.

1.3 Report structure

This Positioning Paper provides a broad contextual platform for residential property investment by institutional investors such as superannuation funds in Australia and for the Final Report of this study. It focuses on the effectiveness of residential investment vehicles internationally in enhancing the supply of private rental properties, and considers their potential for increased housing supply for low-income renters in Australia.

¹ The National Affordable Housing Agreement (2009) is an agreement by COAG. It supersedes the Commonwealth State Housing Agreement (2003), CSHA, between the Australian Government and the Australian states and territories.

² The details can be found from the study of Milligan et al. 2013.

Chapter 2 provides the findings from a desk-based review of residential property investment and institutional investors in Europe, the United States and, to a more limited extent, Asia, noting key features and critical success factors and the limitations of these models for Australia. Housing investment trusts (HITs), Real Estate Investment Trusts (REITs) and residential REITs are discussed in this context.

Chapter 3 investigates the broad context to residential property investment in Australia, highlighting the role of institutional investors such as superannuation and pension funds, and listed and unlisted property investment vehicles in Australia and elsewhere. Two case studies are provided:

- 1. A performance analysis of social housing in the Netherlands and its role in a residential investment portfolio.
- 2. A survey of UK institutional investor attitudes to residential property investment.

Chapter 4 interrogates the preliminary findings of the AHURI Survey of Australian institutional investors with a particular focus on the factors influencing residential property investment decisions, desirable features for an effective residential investment vehicle and potential challenges for residential property investment vehicles in Australia.

Chapter 5 concludes this Positioning Report with a summary of the key issues highlighted in the AHURI survey of institutional investors and preceding chapters and scopes the key areas to be covered in the Final Report of this study.

2 LITERATURE REVIEW

2.1 Introduction

This section examines the significance of private rental housing in enhancing housing supply and meeting housing need as reported in the literature, and the challenges faced by this private rental housing sector. The role of individual and institutional investors in the private rental sector and institutional investors' attitudes towards the private rental property market are critically assessed.

This section also provides a comprehensive review of residential investment vehicles such as REITs and unlisted residential funds, which have been employed in Australia and overseas. The role of residential investment vehicles in encouraging institutional investment in order to increase private rental supply is discussed, with particular focus on the development and impact of housing investment trusts in the UK and residential REITs. Lastly, the effectiveness of residential property in an investment vehicle is comprehensively reviewed and sets the broad context for assessing the current opportunity for the effective development and implementation of residential investment vehicles and their use by institutional investors in Australia.

2.2 Definitions

It is important to clarify two key terms, 'housing affordability' and 'housing stress', which are used in this report. In broad terms, housing stress is measured by a conventional and widely used binary indicator of a simple 30/40 rule in which a household is defined as in housing stress if its housing cost (in this context, 'rent') exceeds 30 per cent of household income for a household in the bottom 40 per cent of income distribution (Yates 2007).

In Australia, the term 'housing stress' is widely used to refer to the circumstances of households whose housing is deemed to be unaffordable ('unaffordable housing') (Lamont 2008; Henman & Jones 2012). Therefore, housing stress has been employed as a quick indicator of housing affordability. A recent AHURI report by Rowley and Ong (2012) also noted that the ratio measure of housing stress is used widely as a proxy for all housing affordability driven outcomes in Australia.

In addition, it is important to clarify the term 'real estate investment vehicle', which is defined as an equity investment vehicle constituted to own and manage private rental properties. The vehicle allows investors to combine capital in order to form a fund to acquire or provide financing for all forms of real estate. Real estate investment vehicles can be established in a range of forms such as REITs, unlisted retail funds and unlisted wholesale funds. REITs are listed vehicles. One of the unique features of REITs is that REITs are exempted from corporate income tax if the majority of their earnings are distributed to shareholders as dividends. The tax transparency of REITs is available in most countries.

Conversely, unlisted property trusts and funds are open either to: (1) all investors, including private investors (i.e. retail); or (2) institutional investors only (i.e. wholesale). Similar to REITs, unlisted property funds invest in real estate, although unlisted property funds are not listed on a stock exchange. Typically, unlisted wholesale property funds have been the main source of property exposure by superannuation funds. In Australia, property syndicates, a form of unlisted property fund, are also available. Property syndicates, unlike unlisted closed-ended retail and wholesale funds, have a predetermined life expectancy and cannot raise additional capital (PIR 2014).

2.3 Private rental sector and housing stress

A clear decrease in housing affordability among Australians has been observed in recent years (REIA 2010). A recent COAG report confirmed that only a relatively small proportion of homes sold were affordable to low-income households (COAG 2010). With increasing housing stress in

the home purchase market and limited affordable housing supply, many potential home purchasers are forced to seek private rental accommodation. This has acted to increase the demand for private market rental properties (AIHW 2011; Wulff et al. 2011).

The demand for private rental properties has increased significantly in recent years. An AHURI report by Wulff et al. (2011) found that the private rental market grew by 11 per cent in 2001–06. A more recent ABS report noted that, in 2011–12, almost 25 per cent of Australian households rented privately (ABS 2013). Hulse et al. (2012) have also demonstrated a steady growth of long-term private renters and observed that some households could face the prospect of lifelong tenure in the rental sector. This finding is supported by Stone et al. (2013), who note the increasing proportion of families with dependent children, particularly single-parent households, who live in the private rental sector for long periods of time.

These figures demonstrate the significant role of the private rental market in the Australian housing sector. However, the current private rental market is unable to meet the needs of all renters, particularly low-income renters. Low vacancy rates and a shortfall of affordable dwellings in major urban cities (e.g. Sydney and Melbourne) exacerbate the issue. In this market, strong competition exists between low-income and high-income households, and potentially relegates low-income and medium-income households to a position of competitive disadvantage.

The former National Housing Supply Council (NHSC 2012) estimated that in 2011 there was a shortfall of 539 000 rental properties which were both affordable and available for low-income renters. Wulff et al. (2011) reported that only 37 per cent of low-income households nationally access affordable rental properties. The issue is even more critical in major metropolitan cities such as Sydney and Melbourne, where almost 90 per cent miss out on affordable housing.

Lower income private renters in Australia experience a greater level and depth of housing stress than other household and tenure types (Tanton & Phillips 2013). AIHW (2011) reported that almost 45 per cent of low-income households in the private rental market are in housing stress. Housing stress is most severe in New South Wales and Queensland (NHSC 2012). This issue is also especially acute for low-income Australian renters (Thornley et al. 2011).

These issues have been exacerbated by changes in recent decades, both in the private rental sector and its role in the housing system in Australia. Stone et al. (2013) have identified several key changes in supply and demand. On the demand side, the private rental sector is increasingly important in providing long-term housing tenure. It has changed from an historical role as a transitional sector for households moving into home ownership to a long-term housing sector. Several factors are at play. Younger households are increasingly delaying home ownership and remaining in private rental accommodation; increases in temporary and permanent migration rates (including international students) have impacted on the amount of available housing stock; the inability of low-income households to access social housing has added to the demand for private rental properties.

On the supply side, there is an increased focus on rental investment in established dwellings in outer urban areas, rather than new stock at the higher end of the market. These changes have some profound implications for the private rental sector. For instance, a recent AHURI report by Hulse, Reynolds and Yates (2014) has documented a rapid rise in real rents, increased pressure on metropolitan private rental markets and a decline in affordable rental properties in Australia. These trends have led to an increase in the number of low-income renters in housing stress.

2.4 Investment in the private rental sector

The majority of rental stock in Australia is owned by individual investors over many decades (Berry 2000; Milligan et al. 2013), with the three largest operators in the residential market (e.g. Defence Housing Australia, NSW Department and Community Services and Victorian Department of Human Services) occupying only 5 per cent of market share (IBISWorld 2015).

Institutional investors such as superannuation funds play a critical role in Australian capital or financial markets. However, many superannuation funds focus on commercial property only (e.g. retail, office, industrial). Thus, superannuation funds represent a potential source of capital for this sector (Milligan et al. 2013).

Several previous studies have attempted to examine institutional investors' attitudes towards residential property investment. Crook, Hughes and Kemp (1998) interviewed 27 senior institutional investor managers in the UK. The study reported that many institutional investors in the UK considered that, in principle, private renting ought to be an attractive investment. Nevertheless, they were reluctant to enter into the private rental market for a wide range of reasons including: small lot size of investment; poor and greater costs of housing management relative to commercial property; illiquidity; low volatility of rent; low returns; company image and other factors. Consequently, institutional investors require a higher rate of return for investment in residential rental property as compensation for the perceived higher level of risk.

Comparable findings have been reported by Crook and Kemp (2002), Berry et al. (2004), Lawson, Gilmour and Milligan (2010), Lawson, Milligan and Yates (2012) and Milligan et al. (2004), in which low rental yield, high taxes, poor liquidity, higher investment risk, reputational risk, management issues, a lack of sufficient scale, the dearth of market information, poor housing management and political risk have been widely recognised as key obstacles for institutional investment in residential properties.

Recently, Milligan et al. (2013) re-examined these issues in the context of institutional investment in private rental housing in Australia. Interestingly, they found that some earlier constraints had been alleviated. Nevertheless, they identified five key outstanding deterrents based on the recent experience of institutional investors: risk-return profile; track records; large scale of investment required; illiquidity; and political risk.

In the UK, the investment membership organisation Investment Property Forum (IPF) conducted a survey of 48 institutional investors (IPF 2014). The survey similarly identified key obstacles for institutional investment in residential rental properties. Low-income yield was cited as the most important barrier in the UK context. Other critical deterrents were: insufficient market size; lack of liquidity; reputational risk; management issues; lack of sufficient scale; and political risk. Compared with the findings of Milligan et al. (2013), we found that both Australian and UK institutional investors shared similar views regarding housing investment.

2.5 Investment in affordable rental housing

Historically, state and territory housing agencies have been the main providers of, and investors in, affordable rental housing in Australia (Eardley & Flaxman 2012). Although a significant growth of national and state-based community housing organisations in Australia has occurred since the 1980s, the organisations have had little capacity to raise private finance for additional housing developments. Since 2001, however, state and territory governments have encouraged and funded not-for-profit developers of affordable housing (Milligan et al. 2009). Nevertheless, community housing organisations in Australia continue to play a relatively minor role in the provision of affordable housing compared with the housing association sector in various jurisdictions overseas (Eardley & Flaxman 2012; Milligan et al. 2009).

In 2012, AIHW (2013) estimated that there were 82 114 dwellings managed by community housing organisations in Australia compared with 330 906 dwellings managed by public housing authorities. Despite the number of community housing dwellings increasing significantly from 48 470 dwellings in 2004 to 82 114 dwellings nationally in 2011, they account for only 0.6 per cent of the total housing stock in Australia (ABS 2011). Public housing similarly plays a marginal role in the total housing stock or the total number of dwellings (3.5%).

2.6 Institutional investment and residential investment vehicles

Crook, Hughes and Kemp (1998) noted that financial institutions were generally unwilling to invest in the private rental sector through direct ownership. They suggested that Housing Investment Trusts were therefore an important potential vehicle for attracting large-scale institutional investment into private rental housing and for creating change in ownership structures. Crook and Kemp (1999) discussed the importance of creating a tax transparent residential investment vehicle to encourage this investment. Importantly, they identified the lack of suitable residential investment vehicles as the key important investment barrier. Milligan et al. (2013) more recently have similarly postulated that REITs and a tax transparency investment vehicle could encourage institutional investors to invest in residential properties.

Montezuma (2006) carried out a survey of institutional investors' attitudes towards residential property as an investment vehicle in Switzerland, the Netherlands and Sweden. Using a postal survey of representatives of pension funds, insurance companies and property investment and asset management companies, the study found that institutional investors in these countries invest in residential property directly. Interestingly, no respondent invested in the private residential rental sector via indirect residential investment vehicles (e.g. unlisted funds) exclusively. In addition, the study suggested that institutional investors' exposure to indirect residential property investment was minor. This refutes the view that the absence of an indirect investment vehicle in housing is a major obstacle to institutional investment in the private rental sector.

In addition, the IPF (2014) survey showed that direct ownership remains the most popular method of holding residential property by institutional investors in the UK, representing almost 60 per cent of all residential asset value. Listed property companies have not been seen as a good strategy by UK institutional investors to gain exposure in residential property. In terms of types of residential property, student accommodation, market rents/assured shorthold tenancies and development sites have been cited as the most popular forms of property for investment. The principal rationale for investing in residential property is the returns profile. Development potential, stability of income, capital value stability, liability matching, lower obsolescence and close correlation with inflation have also been identified as major attractions for institutional investment in residential properties.

Although the abovementioned studies found that Swiss, Dutch, Swedish and UK institutional investors may prefer to invest in residential properties via direct ownership compared with indirect ownership, this could be attributed to the lack of an appropriate residential investment vehicle (e.g. REITs) in these markets. In these markets, listed property companies are major indirect property players. Importantly, listed property companies are engaging mainly in property development activities instead of managing rental properties. Therefore, the listed property companies might not suit the needs of institutional investors seeking to invest in the residential rental properties market.

Conversely, in the US, residential REITs have been recognised as successful investment vehicles. As highlighted in Sections 2.7.3 and 3.5 of this report, US residential REITs play a significant role in enhancing housing supply in the United States. Importantly, residential REITs, particularly apartment REITs, are widely accepted by US institutional investors as an established investment vehicle to gain exposure in the residential properties sector.

2.7 The role of residential investment vehicles

Multi-unit residential trusts/funds or residential investment vehicles are an innovative way to address the critical affordability issue in the private rental market. Importantly, residential investment vehicles not only represent potentially an effective product and mechanism for the increased supply of residential properties, but an alternate mechanism for attracting institutional investment and raising capital. This section discusses residential investment vehicles that are

utilised in Australia and overseas. The outcomes of these residential investment vehicles are also examined.

2.7.1 Housing investment trusts (HITs)

In 1996, the UK government introduced legislation permitting the establishment of housing investment trusts (HITs) in order to provide an attractive vehicle for financial institutions to invest in private rental dwellings. A HIT is a type of investment trust that is set up to own and manage private rented dwellings (Crook et al. 1998), and is required to invest in 'eligible residential property'. Under the *Finance Act* 1996 (UK), tax transparency is provided for HITs. HITs are exempted from capital gains tax and pay a reduced corporation tax rate. In addition, HITs are required to be listed on a stock exchange. A newly listed HIT is required to have net assets of at least £30 million and at least 75 per cent by value of a HIT's gross assets are required to be invested in property (Crook & Kemp 2002). A rule also exists in relation to maximum property value, whereby dwellings must cost no more than £125 000 in Greater London and £85 000 outside of London.

However, HITs have been unsuccessful as an indirect investment vehicle, with no HITs successfully has been established since the scheme's inception in 1996. Crook and Kemp (2002) and Sieracki (2013) attribute this failure to a variety of factors:

- → HITs do not fully address the problem of tax transparency. Although a HIT offers a reduced corporation tax rate compared with property companies, it is not fully tax transparent.
- → The low property value ceilings (Greater London and elsewhere) mean that HITs are unlikely to achieve a mixed-value portfolio, with some higher value properties balancing out low value properties.
- → The trading rule that restricts trading the purchase and sale of individual properties within the portfolio is not consistent with the portfolio management practices of institutional investors, which are expected to balance their portfolios on a regular basis. Additionally, Business Expansion Scheme companies or properties that were let on assured tenancies cannot be transferred to a HIT.
- → The rule of listing on a stock exchange is seen as a hurdle as it is not realistic for HITs to acquire prudently a private residential rental portfolio worth at least £30 million within two years.
- → Institutional investors do not consider that HITs will, in practice, enhance the liquidity of their housing investment significantly while it is listed on a stock exchange.
- → A new HIT could suffer from a significant discount on net asset value as a discount is normally required by a stock exchange for an initial public offering.
- → Many institutional investors consider HITs to have too many restrictive rules (or unworkable restrictions) and view the structure as too complicated.
- → HITs are unable to distribute capital gains following portfolio sales.

That no HIT was ever successfully established in the UK is viewed as somewhat of a policy failure by Crook and Kemp (2002). Nonetheless, despite the failure of HITs, other vehicles have been receiving considerable attention in the UK. These are discussed further in Section 2.7.4.

2.7.2 Real estate investment trusts (REITs): Growing globally

REITs enable the combination of capital from many investors to form a listed fund to acquire or provide financing for all forms of real estate. REITs are traded on the stock exchange. One of the main features of REITs is tax transparency. This means that a REIT, unlike listed property companies, is exempted from company tax if it distributes a major component of its taxable income (100% in some countries, e.g. Australia). This enables REIT shareholders to avoid the double taxation of corporate income (Geltner et al. 2014).

The concept of REITs was first introduced in the United States in the 1960s, with the equivalent concept of Listed Property Trusts established in Australia in the 1970s. Listed Property Trusts were rebadged in 2007 as Australian-REITs (A-REITs) to reflect the international nomenclature for this type of listed property investment vehicle (Newell 2013). The growth of REITs internationally has been evident in the last two decades not only in the pioneering markets of the United States and Australia, but globally via the introduction of REIT regimes in other countries (Stevenson 2013).

REIT markets are now successfully established in over 25 countries. They have been launched successfully in many leading Asian capital markets including Japan (2001), Singapore (2002), South Korea (2002), Hong Kong (2003), Thailand (2003), Malaysia (2005) and Taiwan (2005) (Ooi et al. 2006). Importantly, Asian REITs have expanded considerably over the last decade, with over 100 REITs accounting for US\$130 million as at June 2014 (APREA 2014; Ooi & Wong 2013). In Europe, equivalent tax transparent structures were introduced in the Netherlands in the 1970s (Fiscale Beleggings Instelling or FBIs). In France, REITs were established in 2003. UK REITs and German REITs were also introduced successfully in 2007 (Jones 2007). In 2014, REIT markets were also established in Spain and Northern Ireland (EPRA 2014).

US REITs have evolved and developed significantly over the last 40 years. This has resulted in REITs becoming a mainstream and important segment of the US economy and investment markets (Stevenson 2013). By the end of 2012, US REITs owned about \$1 trillion in commercial real estate assets (Wechsler 2013).

REITs have been seen as effective mutual funds for real estate, with institutional and retail investors obtaining the benefit of a diversified real estate portfolio under professional management. Equity REITs in the United States have invested in a variety of sectors including shopping centres, office buildings, industrial properties, hotels and resorts, healthcare facilities and residential properties. The investor base of US REITs at December 2012 was 26 per cent institutional investors and pension funds (Wechsler 2013).

Chan, Leung and Wang (1998) and Ghosh and Sirmans (2003) have shown that a dramatic increase in aggregate institutional holdings for US REITs has occurred since the early 1990s. This clearly reflects the significant appetite of institutional investors for REITs in the US. More importantly, Downs (1998) has demonstrated a positive correlation between levels of institutional ownership and REIT performance. Hence, institutional involvement is considered to be a critical success factor for US REITs.

In Australia, A-REITs are the second largest REIT market globally, contributing up to 11 per cent of global REIT market share (EPRA 2014). A-REITs are also the largest property funds management sector in Australia, currently accounting for 48 per cent of the property fund management sector (PIR 2014). A-REITs are consistently well placed to play a significant role as a high-calibre indirect property investment vehicle, offering a range of attractive features such as liquidity, tax transparency and access to high-quality commercial property assets for both Australian institutional and individual investors. In addition, Newell (2008) has demonstrated that A-REITs have been strongly supported by major institutional investors and superannuation funds in Australia.

REIT futures were introduced in Australia in 2002 (Newell & Tan 2004; Newell 2010a), reflecting the increased use of REITs as a liquid property investment vehicle by Australian institutional investors. Similarly, REIT or listed property futures were established in Japan (2008), Europe (2007) and the United States (2007) (Lee 2009; Lee & Lee 2012). As discussed by Lee, Stevenson and Lee (2014), the onset of REIT or listed property futures has further improved the liquidity of listed real estate investment. This also enhances the stature of REITs as an investment vehicle by institutional investors. As in the United States, A-REITs invest in a range of property sectors including retail, office, industrial, mixed-used assets and specialist properties

such as pubs, childcare and healthcare facilities. However, the investment of A-REITs in residential properties is somewhat limited (Newell 2013).

2.7.3 Residential REITs

REITs are an important investment vehicle for institutional investment in property. Residential REITs could be an innovative way to encourage institutional investors to invest in residential properties and subsequently increase rental supply in this market. However, as Jones (2007) has observed, the existence of successful commercial REITs in one market does not guarantee that residential REITs will be widely accepted in other countries. In this context, it is critical that we have a detailed understanding of relevant issues in relation to residential REITs and the potential role of residential REITs in enhancing the supply of rental housing in Australia.

United States

In the United States, residential REITs have a long history. US residential REITs make a significant contribution to the overall US REIT market, accounting for US\$95 billion and 15 per cent of the equity REIT market capitalisation as at June 2014. The sector is the second largest REIT sector in the United States (NAREIT 2014). In addition, US residential REITs deliver high quality residential properties for renters (Glascock 2004) in a primarily apartment-driven investment market. US apartment REITs accounted for over 3400 communities and 897 000 apartment units at Q4:2007 (Newell & Fischer 2008). Some of these apartment REITs are also amongst the world's largest REITs. For instance, Equity Residential had a market capitalisation of US\$23 billion and AvalonBay Communities US\$18 billion at June 2014 (NAREIT 2014).

Numerous studies have examined the performance of US apartment REITs. Liang, Chatrath and McIntosh (1996) found that the hedged apartment REIT index tracks the performance of apartment units satisfactorily. This suggests that apartment REITs are a proxy for apartment real estate in the United States and provide an alternate means of gaining exposure to the residential real estate sector in that country. The authors also provided evidence that apartment real estate should be considered in an optimal mixed-asset portfolio and, conversely, that its absence in a mixed-asset portfolio might result in sub-optimal asset allocations.

Comparable evidence is presented by He (2000). He (2000) found that apartment REITs and residential real estate, including new housing starts and new house prices, respond simultaneously to some fundamental changes, such as changes in interest rates. Again, this suggests that apartment REITs are effective indirect residential investment vehicles in which investors can track the performance of residential real estate by the performance of apartment REIT indexes.

However, Hardin and Wolverton (1999) have presented evidence that US apartment REITs have, within specific markets, paid acquisition premiums when making apartment acquisitions. Premiums of 26.1 per cent and 27.5 per cent were evident in the Atlanta and Phoenix markets respectively, whereas no premium was found in the Seattle market. Given the existence of acquisition premiums in particular markets, Hardin and Wolverton (1999) argued that apartment REITs must evidence property level and portfolio level efficiencies as well as capital structural efficiencies in order that investors, and particularly institutional investors, recognise apartment REITs as a potentially more effective ownership structure for residential properties compared with direct residential property investment. Nonetheless, Newell and Fischer (2008) identified increased US institutional investor interest in residential REITs, with investors optimistic about the supply- and demand-side for apartments.

In short, US residential REITs play a major role in providing apartment units in the United States. However, Glascock (2004) and Ball (2010) found that US residential REITs have only been actively investing in the growth cities, such as San Diego and Dallas. More importantly, US REITs own a minority of their portfolios in affordable housing (Jones 2007). Hence, affordable

rental properties as a residential market segment are largely ignored by US REITs (Glascock 2004).

Australia

Although Australian REITs (A-REITs) have been one of the most successful REIT markets globally and are the second largest REIT market in the world, no residential REIT is available in Australia. This means that A-REITs are limited in the main currently to office, retail and industrial properties (Newell 2013).

Jones (2007) investigated the differences between the REIT and residential property markets in the United States and Australia. He attributed the lukewarm response to the concept of residential REITs in Australia to the low rate of return of the Australian residential property market. A-REITs have been recognised as a 'defensive asset' in which income returns are the focus of investments. Nonetheless, expected yields (rental incomes) from residential properties are deemed insufficient compared to other sectors such as retail, industrial and office properties (Jones 2007).

Jones (2007) also noticed differences in the characteristics of private rental accommodation supply in the United States and Australia. His study found that the ownership patterns of large apartment blocks differed significantly between the two countries. Specifically, in the United States, most of the large apartment stock is owned by institutional landlords, whereas the private rental housing market in Australia is mainly driven by small investors (Berry 2000). Consequently, he concluded that a flourishing private rental sector and the existence of institutional landlords with a deep local market are key success factors for residential REITs.

United Kingdom

In the UK, the government has more recently placed faith in REITs in attracting large-scale investment in affordable rental properties (Jones 2007). The REIT structure was introduced in the UK in 2007. Gravis Capital Partners successfully launched the UK's first student accommodation REIT in 2013. Empiric Student Property, another student housing REIT, followed with a listing on the London Stock Exchange in 2014. However, both of these UK REITs have an investment focus on student accommodation rather than residential property.

Jones (2007) investigated the potential of establishing residential REITs in the UK. He suggested that the scope for residential REITs, in terms of scale and number in the short term, could be limited due to the dearth of institutional landlords. He indicated that the conversion of large UK housing associations to REITs would be the most likely route for the long-term growth of the private rental sector. However, he noted that many of these housing associations invested in social housing or affordable housing and the goals of such institutions potentially could be challenged with the creation of social housing REITs. Comparable evidence has also been highlighted by Gibb, Duncan and Stephens (2013).

Other European countries

Residential REITs did not gain significant support in other European countries. German REITs were restricted from active involvement in the residential sector in response to German tenants having serious concerns that German REITs would be less tenant friendly than current landlords (Ball 2010). In addition, Ball (2010) noted that residential REITs were unlikely to be successfully launched in Belgium, the Netherlands or Switzerland.

2.7.4 Other vehicles

A number of vehicles other than REITs are used by institutional investors overseas to enhance the supply of housing and affordable rental properties. In the Netherlands, social housing plays a significant role in the Dutch property market, accounting for €46.8 billion (A\$67.8 billion) at December 2013 (IPD 2014c). Importantly, Dutch social housing contributes 32 per cent of the total housing stock in the Netherlands (Lawson, Gilmour & Milligan 2010). Virtually all social

housing units are owned and managed by non-profit housing associations (CFV 2009). Rabo Bank, a Dutch financial institution, has a strong track record in the Dutch residential rental market, particularly social housing (Ball 2010). Rabo Bank has a major real estate division, which includes residential and an active development arm within its portfolio. This shows the opportunity for financial institutions to build up successful real estate operations. Nevertheless, these Dutch financial institutions concentrated on the upper market 'free rent' sectors.

In the UK, non-profit housing associations have successfully raised more than £1 billion via bond finance since 2012, reflecting the strong appetite from institutional investors. The raised funding also assists housing associations fund new affordable housing developments (Gibb et al. 2013). Scanlon et al. (2013) have also discussed a range of initiatives to support affordable housing construction in the UK. These initiatives echo loan guarantee policies (Gibb 2011). The initiatives include the Housing Guarantees Scheme, which provides guaranteed debt to projects that will deliver additional new-build private rented homes. The projects are required to have a minimum value of £10 million (DCLG 2014). The guaranteed debt helps to reduce housing associations' borrowing costs and increase the number of private rental properties they can afford to provide.

In July 2013, the UK government introduced the Affordable Homes Guarantees Programme, which offers guaranteed long-term finance to registered providers that develop new affordable rental properties (Scanlon et al. 2013). Therefore, in the UK, there are two guarantees: one to support the delivery of new homes purpose-built for private rent (Housing Guarantee Scheme) and a second to support delivery of additional new affordable homes (Affordable Homes Guarantees Programme). The Housing Finance Corporation also plays a major role in improving the financing conditions for affordable housing providers in the UK (Lawson et al. 2010).

The Netherlands similarly has a Guarantee Fund for Social Housing (Waarborgfonds Sociale Woningbouw or WSW), which enables Dutch housing associations to access cheaper finance for the construction of new dwellings and improvements to existing dwellings (Gibb et al. 2013). It also allows social landloads to set affordable rents, as they pay a relatively low interest rate as the loan is guaranteed by the Guarantee Fund (Vandevyvere & Zenthofer 2012). Similarly, in Switzerland, the Bond Issuing Co-operative issues bonds of seven to 10 years to housing cooperative members which are guaranteed by the Swiss Confederation. They enable smaller cooperatives to access secure, low-cost finance with the benefits passed on to tenants in the form of lower rents (ICAHousing 2015).

In Australia, a housing supply bond was also proposed by Lawson, Milligan and Yates (2012) as a suitable instrument to channel investment toward affordable housing. However, a recent AHURI report found that Australian policy-makers were quite cautious in providing guarantees in enhancing housing supply (Lawson et al. 2014). The report also highlighted the importance of establishing an intermediary and government guarantee to improve the supply of affordable housing. A feasible government guarantee model is also presented by Lawson et al. (2014).

2.8 Housing as an effective investment vehicle

Extensive studies have examined the effectiveness of housing as an investment vehicle. Two key factors, housing performance and inflation-hedging effectiveness, are major investment considerations for institutional investors. Issues associated with these factors are discussed below.

2.8.1 Performance and portfolio management

In the housing finance literature, a large number of studies have examined the effectiveness of residential property as an investment vehicle in a mixed-asset portfolio. In the UK, Hutchison (1994) reported low levels of correlation between housing and shares and bonds, again suggesting the diversification potential of housing in a mixed-asset portfolio. Hoesli and Hamelink (1997) illustrated the benefits of including housing in Swiss institutional portfolios. They found that a significant proportion of investment portfolios should be allocated to housing,

confirming the role of housing in portfolio management. Specifically, their portfolio optimisation process suggested that the inclusion of housing in a mixed-asset portfolio would offer an enhanced portfolio return and a reduced portfolio risk.

Comparable evidence is also demonstrated in the United States. Goetzmann (1993) evaluated the effects of including a single family home in a US investor's portfolio. The results suggested that housing was an effective investment vehicle because of the diversification benefits of housing in a mixed-asset portfolio. Eichholtz, Koedijk and de Roon (2002) asserted an optimal portfolio should contain an allocation of 30 per cent in housing. Flavin and Yamashita (2002) similarly demonstrated a negative correlation between residential property and the major financial assets (i.e. bonds, treasury bills and stocks), reflecting the diversification benefits of residential properties. More recently, Jud, Wingler and Winkler (2006) examined the role of US residential property in a mixed-asset portfolio. Consistent with previous studies, their results also indicated that housing plays a significant role in a mixed-asset portfolio. In contrast, Bruckner (1997) contended that the inclusion of housing in an investment portfolio will result in suboptimal portfolios when the housing consumption factor is controlled.

Montezuma and Gibb (2006) reviewed the role of residential property in Swiss and Dutch institutional portfolios. They found that, on balance, residential properties offered good mean-variance performance in these two countries. Their finding confirms that institutional investors, particularly risk-averse investors, can gain significant diversification benefits from investing in housing.

In Australia, Lee (2008) has undertaken an empirical study of the performance of the Australian housing market under the downside risk framework. The study showed that housing is an effective investment vehicle on a risk-adjusted basis. Moreover, the author suggested that the inclusion of housing would reduce the risk level of a mixed-asset portfolio, reflecting housing as an effective investment vehicle.

Further distinctions are made between short-run and long-run investment relationships. Englund, Hwang and Quigley (2002) found that Swedish investors will gain diversification benefits over the longer term and can benefit from the inclusion of residential property in their investment portfolios. A comprehensive review by Montezuma (2004) also concluded that residential property exhibited low levels of correlation with the major assets, again suggesting potential diversification potential for housing.

2.8.2 The inflation-hedging effectiveness of housing

The inflation-hedging effectiveness of housing is a highly desired attribute and consideration for institutional investors, particularly long-run institutional investors such as pension funds and insurance companies (Hoesli et al. 2008; Lee & Lee 2014). Fama and Schwert's (1977) study was the first to offer empirical evidence of the inflation-hedging ability of housing. The study showed that US private residential real estate is a complete hedge against both expected and unexpected inflation. Comparable findings are also illustrated in the US housing market (Anari & Kolari 2002; Bond & Seiler 1998; Huang & Hudson-Wilson 2007). These studies concluded that US residential property provides a significant hedge against both expected and unexpected inflation.

In the UK, Hutchison (1994) also illustrated that housing investment provides a good hedge against inflation. Stevenson (2000) found that inflation and residential property share a common long-term trend, although no similar evidence was observed over the short run. This highlights the differences between the long-run and short-run inflation-hedging ability of housing. In Switzerland, Hamelink and Hoesli (1996) found that housing did not provide a better inflation hedge than financial assets over the short-run, indirectly supporting Stevenson's (2000) finding. Sing and Low (2000) reported that Singapore residential property offered little hedging against inflation over the short run. Comparable evidence is demonstrated by Chu and Sing (2004). Nevertheless, a recent study of the inflation-hedging properties of Malaysian housing

demonstrated that residential property, in general, offers a good hedge against expected inflation over the long run and short run (Lee 2014).

In conclusion, the research on housing's inflation hedging capabilities in different countries yields inconsistent results for investment in residential property in the short run, but in general appears to offer an effective hedge against inflation over the long term.

2.9 Summary

The main findings drawn from the review of the literature are as follow:

- → The demand for private rental housing has increased in recent years and is characterised by a shortfall of rental properties and affordable rental housing.
- → Australian institutional investors currently play a very minor role in the residential rental property market. This can be attributed to barriers including limited liquidity, scale of investment, track records, return-risk profile and political risk.
- → Residential investment vehicles emerge as an innovative approach to encourage institutional investment in the residential sector.
- → US residential REITs have successfully attracted large-scale institutional investment and enhanced the supply of dwellings (primarily apartments). However, affordable rental housing has largely been ignored by US REITs.
- → Various vehicles have been used successfully in other countries to increase the supply of affordable housing. These include guaranteed bonds for housing associations seeking to build social and low cost private rental housing.
- → There is mixed evidence on the effectiveness of housing as an investment vehicle. Although the majority of studies referenced in this chapter support the potential of residential property in hedging the long-run inflation risk, no similar evidence is documented in the mixed-asset portfolio management context. Mixed-results have been found in relation to the role of housing in a mixed-asset portfolio.

3 CONTEXT FOR RESIDENTIAL PROPERTY INVESTMENT

3.1 Superannuation funds in Australia

Superannuation funds in Australia had over \$1.8 trillion in assets at June 2014 (APRA 2014a), being significant institutional investors. Portfolios typically comprised local shares (26%), international shares (25%), local fixed income (9%), international fixed income (6%), cash (8%), property (9%) and other assets (17%)³. The 9 per cent allocation to property consisted of 7 per cent unlisted property and 2 per cent listed property (APRA 2014b).

Examples of leading superannuation funds are given in Table 1. They include industry-based superannuation funds, corporate superannuation funds and public sector superannuation funds. With significant levels of assets under management, these Australian superannuation funds figure prominently at a global level. Importantly, property is a major asset class at typically 5–10 per cent of the total portfolio.

Table 1: Selected Australian superannuation funds: 2014

Superannuation fund	Total assets under management (AUD)	Level of property in balanced option (%)	Global rank (#)	
Industry-based:				
AustralianSuper	\$65 billion	8.5%	54	
UniSuper	\$36 billion	9.0%	104	
REST	\$27 billion	7.0%	142	
HESTA	\$24 billion	10.0%	160	
SunSuper	\$24 billion	8.9%	161	
CBus	\$23 billion	14.0%	167	
Hostplus	\$13 billion	15.0%	More than 275	
Corporate:				
Telstra Super	\$14 billion	14.0%	274	
Public sector:				
QSuper	\$44 billion	9.0%	80	
First State Super	\$40 billion	NA	94	
State Super	\$38 billion	6.0%	96	

Sources: P&I 2013, websites for various superannuation funds

To achieve their unlisted property exposure (7%), Australian superannuation funds use unlisted wholesale property funds provided by major property fund managers. This enables access jointly with other major institutional investors to high-quality commercial property portfolios (Table 2). While separate accounts are used, superannuation funds typically do not invest directly in acquiring their own property assets.

_

³ Other assets including listed infrastructure funds, unlisted infrastructure funds, hedge funds and private equity (Newell and Lee, 2011).

Table 2: Major unlisted wholesale property funds

Wholesale property fund	Total assets (AUD)	No. of properties	No. of investors
AMP:			
AMP Capital Shopping Centre Fund	\$2.5b	10	27
AMP Wholesale Office Fund	\$3.0b	14	29
Lend Lease:			
APPF – Commercial	\$1.9b	14	25
APPF – Retail	\$4.4b	12	58
ISPT:			
ISPT Core Fund	\$7.6b	77	32
GPT:			
GPT Wholesale Office Fund	\$4.1b	15	44
GPT Wholesale Shopping Centre Fund	\$3.0b	9	27
Goodman:			
Goodman Australia Industrial Fund	\$5.6b	115	NA
Charter Hall:			
Charter Hall Office Trust	\$2.3b	18	NA
QIC:			
QIC Property Fund	\$7.2b	17	19
QIC Shopping Centre Fund	\$3.7b	11	16
Dexus:			
Dexus Wholesale Property Fund	\$4.6b	31	44
Eureka:			
Eureka Core Fund No. 2	\$2.7b	4	1

Source: Authors' compilation from PIR 2014.

Note: 'b' stands for billion=1 000 000 000.

Their listed property exposure (2%) is achieved via property securities funds, providing access to REITs and property companies at a local and global level. These are also provided by the major listed property fund managers: for example, AMP and Vanguard. Further specific details of Australian superannuation funds and their property strategies are given in Newell (2007a, 2007b, 2008), Reddy (2013, 2014) and Reddy et al. (2013).

Clearly, Australian superannuation funds are major institutional vehicles and have significant property portfolios. The specific issue of residential property in these superannuation fund portfolios will be examined in a subsequent section of this report.

3.2 Pension funds globally

With over \$30 trillion in assets, pension funds globally are major institutional investors, with pension funds being the equivalent of superannuation funds in Australia. Table 3 lists some of the major pension funds globally. Many pension funds in the mature markets have significant and long-standing property portfolios. Pension funds in Asia are also showing an increased appetite for property in their portfolios (Newell 2010b, 2014).

Table 3: Selected international pension funds: 2014

Pension fund	Total assets under management (billion)	Level of property (%)	Global rank (#)
US:			
CalPERS	US\$291b (AU\$310b)	8.5%	6
CalSTRS	US\$189b (AU\$210b)	11.7%	13
Canada:			
CPPIB	CA\$219b (AU\$211b)	11.6%	9
UK:			
Universities Superannuation	£40b (AU\$72b)	6.5%	48
UK Coal Pension	£19b (AU\$35b)	9.6%	105
Netherlands:			
APG	€351b (AU\$509b)	7.8%	3
PGGM	€142b (AU\$206b)	11.0%	11
Sweden:			
AMF	SKr 377b (AU\$59b)	12.5%	62
Alecta	SKr560b (AU\$88b)	7.2%	30
Germany:			
BVK	€66b (AU\$96b)	12.6%	37
Finland:			
Ilmarinen	FIM196b (AU\$48b)	11.3%	89

Sources: P&I (2013), websites for various pension funds. As of 30 June 2014, AU\$1=€0.69; AU\$1=US\$0.94; AU\$1=CA\$1.04; AU\$1=£0.55; AU\$1=Skr6.35 and AU\$1=FIM4.10.

3.3 Sovereign wealth funds

Sovereign wealth funds (SWFs) are also significant institutional investors, with over \$6 trillion in assets under management. Property is seen as an important asset class by many of these funds. This includes Abu Dhabi Investment Authority (ADIA) (AU\$627 billion; 8% in property), Government of Singapore Investment Corporation (GIC) (AU\$285 billion; 10% in property), as well as Temasek Holdings (AU\$173 billion) and China Investment Corporation (CIC) (AU\$575 billion) (SWF Institute 2014).

Australia's SWF, Future Fund, has AU\$89 billion in assets under management and is the 13th largest SWF globally. Property accounts for 6 per cent of their assets under management at over AU\$5 billion. While this property portfolio is dominated by retail (56%), office (27%) and industrial (9%), residential property accounts for 5 per cent of their property exposure (Future Fund 2013).

3.4 Property funds management in Australia

Australia is considered to be one of the most transparent property markets globally (#3), exceeded only by the UK (#1) and United States (#2) (JLL 2014a). The property funds management sector in Australia currently has over AU\$285 billion in assets under management. This largely comprises REITs (AU\$138 billion), unlisted wholesale property funds (AU\$97 billion), direct private funds (AU\$18 billion), unlisted retail funds (AU\$7 billion) and direct property syndicates (AU\$4 billion), as well as property securities funds (AU\$21 billion) (PIR 2014). With more than 356 property funds involving over 5200 properties, these property funds

provide the major source of property exposure for the leading institutional investors in Australia, such as superannuation funds.

REITs account for 48 per cent of the Australian property funds management sector and are ASX-listed, providing liquidity for investors. Unlisted wholesale property funds account for 34 per cent of the market and, while having limited liquidity and high minimum investment levels, are popular with superannuation funds. Australian superannuation funds achieve high quality property portfolio exposure with major unlisted wholesale property fund managers. These unlisted wholesale property funds typically require a significant minimum investment (e.g. AU\$5–10 million) by institutional investors.

Direct private funds account for 6 per cent of the market and include separate accounts for specific institutional investors with the property fund managers. Unlisted retail funds account for 2 per cent of the market and provide direct property exposure for general retail investors. Direct property syndicates account for 1 per cent of the market and provide direct property exposure for general retail investors for small investment levels (e.g. AU\$10 000) with no liquidity. Property securities funds provide access to REIT portfolios and account for 7 per cent of the market, thus enabling REIT exposure for institutional investors.

Table 4 provides a profile of the property funds management sector in Australia in 2014 showing the various property sub-sectors. A wide coverage of property sub-sectors is provided, with the major ones being: retail (#1; AU\$102 billion); diversified (#2; AU\$90 billion); industrial (#3; AU\$31 billion); and office (#4; AU\$29 billion). Residential property is the 7th largest sector, with AU\$1.0 billion in assets under management. There is also a small residential development fund sector.

Relative to the other major property sub-sectors, residential property is a small component in the property funds management space. Accounting for just AU\$1 billion, there are 22 residential property funds with a total of 25 properties in their portfolios. This means that residential property funds account for only: 0.4 per cent of total property assets under management; 6 per cent of property funds; 0.5 per cent of total properties; and 2 per cent of investors. In the period 2006–14, residential property comprised only 0.2–0.5 per cent of total property assets and less than 2 per cent of property investors (Table 5). Its relatively minor significance in the property funds management sector over the last ten years compared to the major property sub-sectors is indicated in Table 5.

Table 4: Property funds management profile: Australia: 2014

Sector	AUM (AU\$b)	No. of funds	No. of properties	No. of investors ('000)
Diversified	\$90.0b	69	1233	203
Retail	\$102.2b	64	651	258
Office	\$29.4b	69	217	32
Industrial	\$31.2b	36	542	18
Hotel	\$0.4b	3	38	4
Residential	\$1.0b	22	25	11
Leisure	\$1.4b	5	143	5
Healthcare	\$1.1b	7	226	8
Residential development	\$0.5b	10	11	1
Total	\$285b	356	5269	570

Source: Authors' compilation from PIR 2014

Table 5: Residential property funds profile: Australia: 2006–14

Year	# funds	AUM (AU\$million)	No. of properties	No. of investors ('000)	% of total property assets
2006	40	\$713	102	9.2	0.3%
2008	43	\$736	158	13.1	0.2%
2010	33	\$1,561	97	12.6	0.5%
2011	32	\$1,446	135	12.8	0.5%
2013	27	\$1,068	32	12.8	0.4%
2014	22	\$998	25	10.7	0.4%

Source: Authors' compilation from PIR 2014 and previous reports

While these levels for residential property are low, residential investment property has performed strongly in recent years. Over the last 10 years, residential property was the fifth (#5) best-performing asset class, giving a return of 6.1 per cent per annum (Table 6). However, over the last 20 years, residential property was the best-performing asset class (#1) with a return of 9.9% per annum, significantly out-performing the other asset classes (Russell Investments 2014).

Table 6: Australian asset class performance: December 2013

Asset class	10-year return (% p.a.)	Rank (#)	20-year return (% p.a.)	Rank (#)
Australian shares	9.2%	1	8.7%	2
Global shares	8.2%	2	8.0%	3
Australian bonds	6.2%	4	6.8%	5
Global bonds	7.5%	3	7.9%	4
Residential investment property	6.1%	5	9.9%	1
Cash	3.7%	6	3.8%	6

Source: Authors' compilation from Russell Investments 2014

Table 7 profiles the main unlisted residential property funds. Key features include:

- The major player is Peet Limited with AU\$863 million in residential property Assets Under Management (AUM). Peet has 20 funds (comprising only 23 properties) and is ranked #38 in Australian property funds management.
- 2. Other players include Abacus Property Group (#21), Lend Lease (#5), Questus Limited (#57), Australian Property Growth Fund (#31) and Centric Wealth Group. These funds often have just one residential property fund in a broader property funds portfolio.
- 3. Small number of properties in the funds, frequently only one property, with the fund often named after the specific property in the fund.
- 4. Use of direct property syndicates as the main fund type. This is a closed-end fund style, typically of 5–10 years fund life with no liquidity or secondary trading market. Targeted investors are the smaller retail (or 'mums and dads') investors, with minimum entry levels typically being \$10 000. This is well below the expected minimum investment levels required by superannuation funds. Direct property syndicates only account for 1.4 per cent of property funds' AUM.
- 5. Low level of assets per fund, particularly when compared to REITs or unlisted wholesale property funds.

- 6. No presence by the major property fund managers, for example: AMP, Colonial First State.
- 7. Specialist portfolios are often involved. For example, Centric Defence Housing Authority Residential Property Fund has 83 Defence Housing Authority properties on a sale-and-leaseback arrangement.
- 8. There are no residential REITs. However, there are two 'related' REITs, namely Masters Residential Property REIT (comprising US residential property), and Ingenia Communities REIT (comprising retirement property). Both are small REITs and outside the ASX300. One of the major REITs, Stockland (ranked #3), has a significant residential development role.
- 9. A number of players are also involved in the residential development area. These include: 360 Capital, Aspen, Clarence, Folkestone, Future Estate, Kinsmen and Stockland. They are not included in Table 7.
- 10. Unlisted wholesale property funds are largely absent from this list. They represent the preferred property investment vehicle for superannuation funds, reflecting the high-quality of their major portfolios and the significant minimum investment required: often \$5 million to \$10 million.

Table 7: Selected unlisted residential property funds, 2014

Fund Name	Fund type*	No. of investors	No. of prop.	Gross assets
Peet Limited:				
Peet Bayonet Head Syndicate	DPS	56	1	\$5m
Peet Forrestdale Syndicate	DPS	198	1	\$15m
Peet Mandurah Syndicate	DPS	601	1	\$28m
Peet Oakford Syndicate	DPS	161	1	\$8m
Burns Beach Property Trust	DPS	647	1	\$47m
Yatala Unit Trust	DPS	145	1	\$6m
Morven Rural Developments	DPS	16	1	\$2m
Peet Warner Lakes Syndicate	DPS	570	1	\$27m
Peet Cardinia Lakes Syndicate	DPS	667	1	\$13m
Peet Cranbourne Syndicate	DPS	821	1	\$34m
Peet Byford Syndicate	DPS	667	1	\$10m
Peet Cranbourne Central Syndicate	DPS	862	1	\$45m
Peet Mundijong Syndicate	DPS	770	1	\$25m
Peet Botanic Village Syndicate	DPS	715	1	\$30m
Peet Beachton Syndicate	DPS	696	2	\$3m
Peet Tri State Syndicate	DPS	778	3	\$44m
Peet Kingsford Syndicate	DPS	782	1	\$17m
Peet Alkimos	UWF	NA	1	\$399m
Peet Yanchep Land Syndicate	DPS	656	1	\$83m
Peet Greenvale Syndicate	DPS	470	1	\$22m
Abacus Property Group:				
Wodonga Land Fund	URF	443	1	\$35m
Lend Lease:				
Lend Lease Communities Fund No. 1	UWF	7	2	\$100m
Questus Limited:				
Questus Residential Investment Fund	PIS	400	400	\$160m
Australian Property Growth Fund:				
Domaine Land Funds	DPS	220	3	\$20m
Centric Wealth Group:				
Centric DHA Residential Property Fund	URF	NA	83	\$53m
Course: Authors' compilation from DID (2014)				

Source: Authors' compilation from PIR (2014)

URF = Unlisted retail fund; PIS = Miscellaneous property investment scheme

The lesser stature of residential property in property funds management in Australia is further reflected in the property performance benchmarks produced by Investment Property Databank (IPD) (2014a). IPD produces quarterly property performance benchmarks (since 1985) for retail

^{*} DPS = Direct property syndicate; UWF = Unlisted wholesale fund;

property (AU\$62 billion; 446 properties; 41 funds), office property (AU\$61 billion; 565 properties; 55 funds) and industrial property (AU\$12 billion; 324 properties; 22 funds), but do not produce a residential property performance benchmark.

Overall, the broad context of residential property in Australian property funds management is one in which residential property is a small property sub-sector with limited involvement by major institutional investors such as superannuation funds. The bigger question is why.

Subsequent sections of this report will examine the levels of residential property in institutional portfolios in other countries and the reasons why residential property is less attractive to institutional investors than other forms of investment. It will additionally explore the views of property investment companies (PICs) in Australia in regard to residential property as an investment opportunity.

3.5 International context of residential property investment: REITs

While residential REITs do not exist in Australia, there are significant residential REIT markets in a number of major countries overseas.

3.5.1 US REITs

REITs have been established in the United States for over 50 years, with residential REITs being a significant property sub-sector in the world's largest REIT market. Of the 152 US REITs with a total market cap of US\$646 billion (AU\$687 billion) at June 2014, there were 16 residential REITs accounting for US\$95 billion (AU\$102 billion) in market cap. This sees residential REITs as the #2 REIT sub-sector, being 15 per cent of the US REIT market and exceeded only by retail REITs (#1 at 29%).

Residential REITS exceeded healthcare REITs (#3 at 13%), office REITs (#4 at 12%), diversified REITs (#5 at 10%) and industrial REITs (#6 at 5%) (NAREIT 2014). These residential REITs predominantly invest in apartments, with a focus on mobile, affluent markets and growth cities. US REITs account for approximately 1 per cent of stock in the US rental housing market (Ball 2010). As well as apartments, some US residential REITs also invest in student accommodation and manufactured homes (Newell & Fischer 2008).

Table 8 details the leading US residential REITs, the number of properties in their portfolios and their local ranking. It shows that five of the top 25 US REITs, and ten of the top 50 REITS, are residential REITs. Equity Residential (#3) and AvalonBay Communities (#8) are notable for being in the top 10 US REITs. Overall, US residential REITs have over 2300 properties, translating to over 644 000 apartments (NAREIT, 2014).

Historically, residential REITs have been a significant component in the US REIT market. In the period 2005–14, residential REITs accounted for an average of 16 per cent of the US REIT market. Residential REITs have also delivered strong performance, with a return of 23.2 per cent per annum over the last five years, exceeded only by retail REITs (23.3% p.a.) (NAREIT 2014).

Table 8: Leading US residential REITs: 2014

REIT	Market cap (USD)	Rank (local)	No. of properties	No. of units ('000)
Equity Residential	\$23 billion (AU\$24b)	#3	390	110
AvalonBay Communities	\$18 billion (AU\$19b)	#8	275	82
Essex Property	\$12 billion (AU\$13b)	#13	237	55
UDR	\$7 billion (AU\$7.5b)	#21	141	41
Camden Property	\$6 billion (AU\$6.4b)	#22	184	64
Mid-America Apartment Communities	\$5 billion (AU\$5.3b)	#27	277	82
Apartment Investment Management Co.	\$5 billion (AU\$5.3b)	#34	167	33

Sources: Authors' compilation from EPRA (2014), NAREIT (2014) and websites of various REITs. As of June 2014, AU\$1= US\$0.94.

Other significant non-REIT apartment/residential portfolios in the United States are owned and managed by NMA Financial, Boston Capital, SunAmerica Affordable Housing and Enterprise Community Investment (Newell & Fischer 2008).

3.5.2 Canada REITs

Canada has 18 REITs, with retail REITs and diversified REITs dominant in the market. Two of the top 10 REITs, Boardwalk REIT (#6) and Canada Apartment Properties (#7), are residential REITs (EPRA 2014). Table 9 provides details of Canada's three residential REITs at June 2014. These three Canadian residential REITs have nearly 500 properties with over 87 000 apartments.

3.5.3 Japan REITs

Residential REITs in Japan (J-REITs) are a significant component of the J-REIT market with residential J-REITs representing some 1450 properties with over 91 000 apartments. Of the 45 J-REITs at June 2014, there were 11 residential REITs and another five J-REITs with a significant residential component in their diversified portfolios. This sees residential REITs as being the second largest REIT sub-sector in Japan, accounting for 14 per cent of the market cap and exceeded only by the office REIT sub-sector (#1 at 44%) (APREA 2014).

3.5.4 Singapore REITs

Of the 30 Singapore REITS (S-REITs) there is only one residential REIT. Ascott Residence Trust (ranked #11) has 81 properties with 9000 apartments. In Singapore, residential S-REITs are subsequently the sixth largest sub-sector, representing 3 per cent market share, compared to retail S-REITs (#1 at 28%) (APREA 2014).

3.5.5 France REITs

France has only one residential REIT, Fonciere Developpement Logements (ranked #8) (EPRA 2014).

Table 9: Main residential REITs in selected REIT markets, 2014

REIT	Market cap (billion)	Rank (local)	No. of properties	No. of units ('000)
Canada:				
Boardwalk REIT	CA\$2.58b (AU\$2.58b)	#6	226	35k
Canada Apart. Prop.	CA\$2.51b (AU\$2.51b)	#7	222	42k
Northern Property	CA\$0.91b (AU\$0.91b)	#15	41	10k
Japan:				
Advance Residence	US\$3.15b (AU\$3.35b)	#6	221	19k
Daiwa House Residential	US\$1.74b (AU\$1.85b)	#18	134	12k
Nippon Accommodation	US\$1.74b (AU\$1.85b)	#19	112	11k
Japan Rental Housing	US\$1.03b (AU\$1.10b)	#29	188	12k
Sekisui House SI	US\$0.93b (AU\$0.99b)	#30	91	7k
Nomura RE Residential	US\$0.87b (AU\$0.93b)	#32	152	9k
Comforia Residential	US\$0.75b (AU\$0.80b)	#34	80	5k
Singapore:				
Ascott Residence	S\$1.92b (A\$1.64b)	#11	81	9k
France:				
Fonciere Developpement Logements	€3.2b (A\$4.64b)	#8	NA	NA

Sources: Authors' compilation from APREA (2014), EPRA (2014); websites of various REITs. AU\$1=€0.69, AU\$1=US\$0.94, A\$1=CA\$1.004 and A\$1=1.18 as at 30 June 2014

3.5.6 UK REITs

There are no UK residential REITs at present, with the UK REIT market dominated by diversified REITs and retail REITs. Many of the major UK REITs are previously listed property companies that took on REIT status with the establishment of the UK REIT market in January 2007. A student accommodation REIT was established in 2013 and there is the prospect of residential REITs in the future (Goodchild 2014). There is also a prospect of some of the leading UK housing associations establishing as residential REITs in the future, as they have significant residential property portfolios on their balance sheets. The latter has been facilitated by reduced barriers to entry into the UK REIT market from 2012, which enables REITs to list on the London Stock Exchange and additionally join the lesser regulated Alternative Investment Market (AIM). AIM is the London Stock Exchange's international market for smaller developing companies.

While not a UK REIT, Grainger plc is the largest UK listed property player amongst the non-REITs with over 4000 properties in their portfolio, largely in London or London South East.

3.5.7 Other countries

Other countries with significant REIT markets similarly do not have residential REITs. This includes Hong Kong, Malaysia and Germany.

This section has highlighted the significance of residential REITs in international REIT markets. We found considerable variation in the extent of residential REITs in REIT markets globally, with residential REITs playing a more significant role in markets in the United States, Canada and Japan.

Despite a significant REIT history of over 40 years, Australia has no residential REITs currently and is yet to embrace opportunities for institutional investment in residential REITs recognised in the US, Canada and Japan. This aspect is discussed more fully in Sections 2.7.3 and 3.1.

3.6 International context of residential property investment: unlisted vehicles

While the listed property space via REITs has seen variable impacts for residential REITs across the global REIT markets, the unlisted property space has seen considerable recent activity for unlisted residential funds, particularly in the United States (via real estate private equity funds), with potential opportunities in the UK. The unlisted residential property space is potentially the most relevant for institutional investors such as superannuation funds, as it allows significant investment into major residential portfolios in funds with different risk levels and fund strategies.

3.6.1 US status

Table 10 lists some of the major US-focused unlisted closed-end residential funds that closed (after raising sufficient capital) in 2013 (Preqin 2013). The highlight was the Lone Star Fund VIII, which raised US\$5 billion, with two other unlisted residential funds raising over US\$500 million each: namely, Real Estate Opportunity Capital Fund II (US\$596 million) and GTIS US Residential Strategies (US\$526 million). Residential funds represented five of the top 10 US-focused sector-specific funds that closed in 2013. The Lone Star Fund VIII (US\$5 billion) was the largest residential US-focused sector-specific fund which closed in 2013, being over four times larger than the next largest US-focused sector-specific fund (KTR Industrial Fund III: US\$1.2 billion) which closed in 2013.

Several other unlisted US-focused residential funds were still in the market and raising capital in 2013 (see Table 10). These unlisted residential funds represented four of the top 10 US-focused sector-specific funds seeking to raise over US\$2.7 billion. The largest of these was the Sunbelt Rental High Yield Equity Fund (US\$1 billion). In 2013, the average time taken by a US-focused private equity real estate fund to achieve a final close was 19 months (Preqin 2013).

Overall, these US-focused unlisted residential funds raised over US\$19 billion in capital over 2011–13, comprising US\$5.6 billion in 2011, US\$4.3 billion in 2012 and US\$9.2 billion in 2013 (Preqin 2013). With over US\$19 billion in raised capital, the unlisted residential funds sector was clearly the largest of the property sectors, exceeding the office sector (US\$3.2 billion), retail sector (US\$2.6 billion) and industrial sector (US\$2.9 billion) in 2011–13. The US\$19 billion in capital raised by these unlisted residential funds accounted for 56 per cent of the US\$34 billion in total capital raised over 2011–13 by these US-focused sector-specific funds, with the next largest sectors being office (9% share), retail (8% share) and industrial (9% share). Importantly, in 2013, the capital raised for unlisted residential funds accounted for 61 per cent of the total capital raised by these US-focused sector-specific funds, highlighting capital raising momentum in the US-focused residential fund sector.

27

⁴ Note: Diversified funds were the largest sector, but are not included in this analysis. Only sector-specific funds are assessed here.

Table 10: Selected unlisted residential funds, 2013

REIT	Market cap	Rank (local)	
Panel A: Funds closed			
Lone Star Fund VIII	\$5,000million	1	
Real Estate Opportunity Capital Fund II	\$596million	7	
GTIS US Residential Strategies	\$526million	8	
Encore Housing Opportunity Fund II	\$460million	9	
IMT Capital Fund III	\$400 million	10	
Panel B: Funds in market raising capital			
Sunbelt Rental High Yield Equity Fund	\$1,000million	4	
Greystar Equity Partners VIII	\$600million	7	
Praedium VIII Multifamily Value Fund	\$600million	8	
Wolff Real Estate Partners II	\$550million	9	

Source: Preqin 2013

This positive status by the US-focused unlisted residential funds over 2011–13 has continued at a global level in 2014. In the year January to September 2014, over US\$11.4 billion has been raised by the 23 unlisted residential funds which closed after raising sufficient capital (Preqin 2014). This includes the five largest residential funds:

- → #1: Lone Star Fund IX: US\$7.2 billion (Europe focus)
- → #2: Carmel Partners Investment Fund V: US\$1.0 billion (US focus)
- → #3: Greystar Equity Partners VIII: US\$800 million (US focus)
- → #4: Berkshire Multifamily Value Fund II: US\$417 million (US focus)
- → #5: Kotak India Real Estate Fund II: US\$400 million (India focus).

To reinforce the stature of these unlisted residential funds at a global level, in the period 2010–14, 217 unlisted residential funds raised US\$41 billion in capital (Preqin 2014). Increased momentum in recent years has been evident with US\$7 billion raised in 2012, US\$12 billion in 2013 and US\$11 billion raised to September 2014. Importantly, in 2013–14, 53 per cent of these unlisted residential funds achieved at least the level of capital they were seeking to raise, with 43 per cent exceeding their target capital level. These unlisted residential funds used a wide range of residential fund strategies with different risk levels including value-add, opportunistic, distressed and debt fund strategies. This increased capital-raising momentum was supplemented by another 97 unlisted residential funds still in the market at September 2014 seeking over US\$16 billion in capital. These were mainly US-focused residential funds (US\$10.2 billion; 63% market share), Asia-focused residential funds (US\$3.9 billion; 24% market share) and Europe-focused residential funds (US\$1.9 billion; 10% market share) and other regions (3%) such as Middle-East-focused funds.

Overall, the unlisted closed-end residential funds have seen considerable momentum in recent years, both in the United States and internationally. With over US\$41 billion raised over 2010–14, the major capital contributors to these unlisted residential funds have been pension funds, seeking residential property exposure through various investment fund strategies. Other major contributors to these unlisted residential funds have included insurance companies, endowments, foundations, family offices, SWFs and high wealth individuals. This sets a very positive context for consideration of unlisted residential funds as an effective residential investment vehicle for institutional investors in Australia.

3.6.2 UK status

Considerable opportunities exist for residential investment by institutional investors in the UK, with the UK residential private rental market accounting for 16 per cent of UK housing stock, and UK social housing accounting for 18 per cent of UK stock (Resolution Foundation 2012). However, the current level of residential property in UK institutional investor's total property portfolio is minimal (1%) and significantly less than that in other European countries, including Spain (7%), Sweden (9%), Germany (12%), Denmark (13%), France (16%), Finland (17%), Austria (17%), Switzerland (47%) and The Netherlands (47%) (Khan-Phillips, 2013; Resolution Foundation, 2011). Investment in such countries is often driven by large rental markets, as in Switzerland and The Netherlands, and the availability of stock.

Consequently, in 2011, the UK Government commissioned a review to look at ways of attracting large-scale institutional investment into new private rental housing in the UK (the Montague Review) and existing barriers. The report underlined the potential attractiveness to investors of large scale developments of private rental homes as the residential property market in the UK has strong fundamentals and the ability to provide diversification and yields could meet investors' requirements. To encourage large-scale institutional investment into new private rental housing, several recommendations have also been made, including: (1) a responsive planning system regarding private rental dwelling development, (2) a target of land release for 100 000 homes by 2015, (3) targeted incentives, (4) establishing a dedicated Task Force focussed on private rental housing and (5) a formal or mandatory 'kitemark' that gives both tenants and wider communities assurance of a consistently high standard of new build rented homes.

The recent establishment of a special interest group in IPF to focus on residential investment has been a further measure of the perceived investment importance going forward of the residential investment sector in the UK. This perspective was further confirmed in the 2014 survey of UK institutional investor attitudes to residential investment (IPF 2014), which showed a positive context going forward (see Section 3.8). IPD also produces an annual UK residential property performance index (since 2000), which currently comprises 5416 properties valued at £2.8 billion from 14 funds. This compares favourably with the property profile in other IPD UK property indices, e.g. retail (4156 properties at £71 billion), office (2663 properties at £40 billion) and industrial (2850 properties at £24 billion) (IPD 2014b). Overall, this sees a very positive UK residential investment context going forward.

While UK REITs have seen supportive regulations introduced in 2012, the UK REIT involvement to date in the residential space has been limited to student accommodation (see Sections 2.7.3 and 3.5.6). With the leading UK housing associations (e.g. Genesis, London and Quadrant, Thames Valley) having significant residential property portfolios on their balance sheets, it is expected they will have the scale and size to create REITs (or unlisted funds) in the future (Goodchild 2014). Grainger plc, while not a REIT, is currently the largest UK listed residential property owner and manager.

However, it is in the unlisted residential fund space that there has been most recent activity. Wellcome Trust and Grosvenor have been involved in the residential investment property space for a significant time, with residential property being a very significant component in their multibillion dollar property portfolios. M&G Investments (formerly PruPIM) are also a leading institutional investor in this residential investment space, as well as Aviva Investors and Legal & General more recently. In fact, as recently as September 2014, M&G Investments were raising capital for a significant unlisted residential fund, with a number of other leading investment managers (e.g. Pramerica Real Estate Investors, Aviva Investors, Aberdeen Asset Management) seeking to do the same (Goodchild 2014).

Other players (e.g. LaSalle Investment Management) have set up residential debt funds which are making whole loans for residential developments in London. With the UNITE Group being the leading player in the student accommodation arena in the UK (Unite Students), and student

accommodation typically not seen as a proxy for residential investment by institutional investors, significant unlisted student accommodation funds have also been established. This includes the UNITE UK Student Accommodation Fund (£870 million net asset value) and Cordea Savills Student Hall Fund (£62 million net asset value).

Recently, there has also been considerable overseas institutional investor interest in UK residential property by leading pension funds and SWFs. This has included: the Dutch pension fund APG, jointly with Grainger and Delancey; Qatari Diar, in joint venture deals involving Chelsea Barracks and Olympic East Village; the German real estate investment company Patrizia; and the Malaysian pension fund EPF. In the student accommodation sector, Singapore's GIC (with UNITE) and the Dutch pension fund PGGM (with UPP) have been actively involved.

This increased interest in UK residential property investment by institutional investors has seen considerable attention given to suitable and innovative investment models for residential property investment. This has included income strip funds, debt funding, shared ownership and land-led joint ventures (Doherty 2013; JLL 2014b; Resolution Foundation 2011, 2012). These will be discussed and analysed more fully in the Final Report of this project.

Overall, the UK residential investment context is very positive and reflects the current high level of interest by institutional investors in the sector (Goodchild 2014). While this interest has focused largely on the top end of the residential market, it has focused institutional investor attention on a sector which provides considerable opportunities for increased levels of residential property exposure in UK institutional investor property portfolios (currently only 1%). This sets a very strong international context for Australian institutional investors to expand their exposure to Australian residential investment across all sectors including student accommodation and affordable housing. This is examined further in Chapter 4.

3.7 Case study 1: Residential property performance: Netherlands social housing

To highlight the potential significance of residential property in a portfolio, an analysis of the risk-adjusted performance of social housing in the Netherlands for the period 1999–2013 was carried out (Newell & Lee 2014). Given the significance of social housing in the Netherlands, which comprises 35 per cent of total housing stock and 80 per cent of rental housing stock (Aedes 2013), and the availability of the IPD Netherlands social housing performance index, this provided an excellent case study for this report.

The IPD Netherlands social housing performance index is available annually for 1999–2013 and currently includes 7244 properties (including houses and multi-storey) involving approximately 600 000 residential units. This constitutes 25 per cent market coverage of the social housing sector in the Netherlands (IPD 2014c). The performance of social housing was compared against the other property sectors, as well as shares and bonds.

Table 11: Netherlands asset performance: 2013

Asset class	Average annual total returns (%)				
ASSET CIASS	1Y	3Y	5Y	10Y	
Social housing	1.20%	0.70%	0.90%	3.10%	
Property	0.50%	1.80%	2.00%	5.40%	
Shares	18.50%	6.60%	13.80%	6.00%	
Bonds	2.20%	2.00%	2.50%	3.10%	

Table 11 presents the total return performance on a one-, three-, five- and 10-year basis. Social housing saw lesser performance on a short-term and long-term basis, with the income return component of the total returns for social housing approximately 3.6 per cent per annum. A more significant performance was seen by shares and commercial property.

Table 12: Risk-adjusted performance analysis, 1999-2013

Asset class	Average annual return	Annual risk	Sharpe ratio	Performance rank
Social housing	4.30%	4.53%	0.43	4
Shares	2.10%	24.80%	-0.01	5
Bonds	3.70%	1.12%	1.18	1
Property	7.49%	5.31%	0.96	2
Listed property	4.70%	4.01%	0.58	3

The risk-adjusted performance analysis over 1999–2013 is given in Table 12. While having a low risk level (4.53%) comparable to commercial property, social housing had lesser risk-adjusted performance, being the #4 ranked asset (Sharpe ratio of 0.43), exceeded by bonds (#1), commercial property (#2) and listed property (#3).

To highlight the diversification benefits of social housing, Table 13 presents the inter-asset correlation matrix for 1999–2013. Importantly, social housing showed some degree of portfolio diversification benefit with commercial property (r = 0.67) and shares (r = 0.30). Portfolio diversification is a key factor in the mixed-asset portfolio investment decision-making by pension funds.

Table 13: Inter-asset correlation matrix, 1999-2013

	Social housing	Shares	Bonds	Property	Listed property
Social housing	1.00				
Shares	0.30	1.00			
Bonds	0.56	-0.08	1.00		
Property	0.67	-0.00	0.81	1.00	
Listed property	-0.42	-0.71	-0.16	-0.20	1.00

For a fuller comparison in a property context, Table 14 presents the one-, three-, five- and 10-year total return performance for social housing against office, retail, industrial and residential property. Social housing saw lesser performance than most of the other property sub-sectors, with stronger performance evident for the retail and industrial property sectors.

Table 14: Property sub-sector performance, 2013

	Average annual returns (%)				
Sector	1Y	3Y	5Y	10Y	
Office	-2.4%	-1.0%	0.1%	3.5%	
Retail	1.1%	4.3%	4.6%	8.0%	
Industrial	5.2%	3.3%	2.5%	6.0%	
Residential	0.6%	1.1%	0.8%	4.4%	
Social housing	1.2%	0.7%	0.9%	3.1%	

The risk-adjusted performance of social housing versus the other property sectors is given in Table 15. Social housing delivered the lowest average annual return, although it had one of the lowest risk levels (4.53%) and was lower risk than the general residential sector (6.09%). On a risk-adjusted basis, social housing was the worst performed property sector (#5; Sharpe ratio = 0.43), behind residential property (#3; Sharpe ratio = 0.77).

Table 16 shows the inter-property diversification benefits. Social housing showed some diversification benefits with the other property sectors, although the correlation between social housing and residential showed marginal diversification benefits (r = 0.64). Again, this issue of portfolio diversification is a critical factor in portfolio considerations by institutional investors.

Table 15: Property sub-sector risk-adjusted performance analysis, 1999-2013

Sector	Average annual return	Annual risk	Sharpe ratio	Performance rank
Office	6.02%	6.01%	0.61	4
Retail	8.92%	4.22%	1.55	1
Industrial	7.73%	5.01%	1.07	2
Residential	7.07%	6.09%	0.77	3
Social housing	4.30%	4.53%	0.43	5

Table 16: Property sub-sector correlation matrix, 1999–2013

	Office	Retail	Industrial	Residential	Social housing
Office	1.00				
Retail	0.83	1.00			
Industrial	0.53	0.32	1.00		
Residential	0.91	0.84	0.63	1.00	
Social housing	0.58	0.71	-0.03	0.64	1.00

The comparison of residential property versus social housing across the various parameters is shown in Table 17. Compared to residential property, social housing showed lesser returns, lesser risk, lesser risk-adjusted returns and less diversification benefit with shares. Overall, this sees social housing delivering a social housing 'discount' relative to residential property, reflecting the lesser performance by social housing.

This performance analysis has highlighted the lesser performance of social housing in the Netherlands compared to the other property sectors and shares and bonds. No social housing 'premium' was apparent, when compared with residential property; rather, a social housing 'discount' was evident. While social housing considerations are far more complex and significant than just a risk-adjusted performance analysis and involve issues relating to social need, vulnerable sectors in the community and broader aspects of social responsibility, this performance analysis has highlighted the lesser role that social housing plays against the other asset classes, including residential property.

Table 17: Residential versus social housing, 1999-2013

	Average annual return	Annual risk	Sharpe ratio	Performance rank
Residential	7.07%	6.09%	0.77	1
Social housing	4.30%	4.53%	0.43	2
Social housing 'premium'	-2.77%	+1.56%	-0.34	

Residential/social housing: r = 0.64

Residential/shares: r = -0.03 Social housing/shares: r = 0.30

Whilst this analysis is expected to vary across countries and to be influenced by specific housing policies, it has highlighted the investment challenges for including social housing in a pension fund portfolio.

3.8 Case study 2: UK institutional investor survey on residential property investment

IPF, as the leading UK property investment professional association, conducted an annual survey in 2012, 2013 and 2014 to assess institutional investor attitudes to private residential rental investment in the UK (IPF 2014). This survey has involved UK pension funds, life assurance companies, property companies, REITs and fund managers. This section highlights the key results of the 2014 IPF survey and provides a strong international context to the equivalent survey of Australian institutional investors and their views on residential property investment conducted by the AHURI research team in August 2014.

The IPF UK institutional investor survey was conducted in April 2014 involving 48 respondents. With a total property portfolio of £178 billion (AU\$324 billion), 80 per cent of respondents had some exposure to residential property. This amounted to more than £13 billion (AU\$24 billion) in residential property, or 6.6 per cent of their total property assets, with the average investment level being approximately £350 million (AU\$636 million).

The preferred method of holding residential property was via direct ownership (78% of respondents; 61% based on property asset holdings). This was followed by using a joint venture (50% of respondents; 19% based on property asset holdings) and using a private fund (33% of respondents; 18% based on property asset holdings). Exposure using listed property companies to obtain residential property exposure had limited appeal (14% of respondents; 2% based on property asset holdings).

Rental properties (34% of property asset holdings), development land (24% of property asset holdings) and student accommodation (16% of property asset holdings) were the residential subsectors utilised. For the 80 per cent who had exposure to residential property, the main reasons for investing in residential property were:

- 1. returns profile
- 2. development potential
- 3. stability of income,

with most existing residential property investors likely to increase their investment in the residential sector over the next year.

For those not investing in residential property, the main reasons for not investing in residential property were:

- 1. low-income yield
- 2. lack of liquidity and insufficient market size.

However, most respondents indicated that they were likely to invest in the future in residential property via:

- 1. student accommodation
- 2. market rental properties
- 3. development sites.

Concerns were raised over planning issues (e.g. affordable housing requirements) and the need for reduced VAT payments (e.g. on repairs and management fees).

Overall, this IPF 2014 survey continued the trend in the 2012 and 2013 IPF surveys and presented a very positive context going forward for UK institutional investors and investing in residential property.

3.9 Summary of context for residential property investment

This section has provided the broad context to residential property investment, highlighting the role of institutional investors such as superannuation funds and the types of property investment vehicles used for residential property investment both in Australia and internationally.

While Australian superannuation funds have significant commercial property portfolios, the typical lack of exposure to residential investment by Australian superannuation funds in their property portfolios is noted. This reflects their concerns over the role of residential property in their portfolios and the general lack of both listed and unlisted property investment vehicles available and suited to Australian superannuation funds in the residential investment area. This is contrasted to the experience of the United States and UK, where there exists increasing investor interest and an increasing range of listed and unlisted residential investment vehicles available to pension funds and other institutional investors.

The case for residential property in an institutional investor portfolio is further illustrated with case studies on the risk-adjusted performance analysis of social housing in the Netherlands and its role in a portfolio, and a survey of UK institutional investor attitudes to residential property in their portfolios.

Overall, this section presents a broad contextual platform concerning the various dimensions of residential property investment by institutional investors such as superannuation funds. It provides a strong basis for the survey of Australian institutional investors regarding residential property investment (see Chapter 4), and the modelling for the potential development of suitable residential property vehicles for the effective role of residential property in an institutional investor's portfolio in Australia. These issues will be more fully explored in Chapter 4 of this Positioning Paper and in the Final Report of this project.

4 SURVEY OF AUSTRALIAN INSTITUTIONAL INVESTORS REGARDING RESIDENTIAL PROPERTY INVESTMENT

4.1 Context

The 2014 IPF UK institutional investor survey (see Section 2.9) presented a very positive context going forward for UK institutional investors and investing in residential property.

This section provides the results of an equivalent survey of Australian institutional investors regarding residential property investment, conducted by the AHURI project team in August 2014. Key issues assessed are:

- 1. Current levels of residential rental property in portfolios.
- 2. Residential sub-sectors targeted.
- 3. Future intentions regarding residential rental property investment.
- 4. Factors influencing their decisions to invest in residential rental property.
- 5. Desirable features for effective residential property investment vehicles.
- 6. Potential problems of investing in residential property investment vehicles.

4.2 Survey methodology

A structured questionnaire survey of Australian institutional investors was conducted in August–September 2014. The survey questions were based largely on a previous survey by Montezuma (2006) for European institutional investors in residential property, with the questions varied to account for local differences. The specific information sought by the survey related to:

- 1. Factual information concerning the respondents' AUM portfolios.
- 2. Respondent ratings using a 5-point scale of the importance of specific factors associated with their current levels of residential property investment, their consideration of residential property investment and their views on an effective residential property investment vehicle. The 5-point scale of importance of specific factors is used in which 1= 'unimportant', 2= 'less important', 3= 'important', 4= 'very important' and 5= 'critical'.
- 3. Questionnaires were sent to respondents who are at the level of 'Managing Director' or 'General Manager' or 'Fund Manager' or 'Chief Investment Officer'. This approach was designed to benefit the study by ensuring a high level of reliability. In addition, the respondents have daily exposure to the fund's management, decision-making processes, portfolio management and performance measurement.

A total of 84 surveys were distributed to superannuation funds (N=61) and PICs (N=23). Twenty-six surveys were completed representing a response rate of 31 per cent (superannuation funds 26% (N=16); PICs 44% (N10)). Survey respondents were at senior executive levels and had considerable experience in the property industry; with an average of 14 years experience for the superannuation funds and 24 years experience for the PICs (see Table 18).

Superannuation funds were selected on the basis of availability of specific property or Chief Investment Officer contacts, rather than those which relied heavily on asset consultants. PICs were selected on the basis of availability of specific residential property or 'Fund Manager' or 'Managing Director' or 'General Manager' contacts. The significant AUM portfolios of the respondents, combined with respondents' extensive experience in property, add credence to the integrity and rigour of the findings.

The total value of the respondent portfolios (all portfolio types) was AU\$147 billion (superannuation funds AU\$136 billion; PICs AU\$11 billion). A wide range of assets under management (AUM) values were evident for the superannuation funds, ranging from AU\$650

million up to AU\$29 billion for the largest superannuation fund, with an average AUM value of AU\$8.5 billion.

The total value of the respondent property portfolios was AU\$24.6 billion (superannuation funds AU\$13.2 billion; PICs AU\$11.4 billion). AUM property values for these superannuation funds ranged from AU\$65 million to AU\$3.3 billion, with the average property AUM being AU\$827 million. This represents an average property portfolio allocation of 9.7 per cent, ranging from 6.4 per cent to 22.3 per cent. It sees the respondent superannuation fund profile matching the typical 5–10 per cent allocation to property seen generally for Australian superannuation funds and in most mature markets. The average property AUM for the PICs was AU\$931 million, ranging from AU\$180 million to AU\$3 billion.

Table 18: Survey respondent profile: Superannuation funds and PICs

Institutional investors	Supers	PICs	Total
Number of surveyed distributed	61	23	84
Number of respondents	16	10	26
Survey response rate	26%	44%	31%
Value at total portfolio	AU\$135.9billion	AU\$11.5billion	AU\$147.4billion
Value of property portfolio	AU\$13.2billion	AU\$11.4billion	AU\$24.6billion

The following sections present the preliminary findings of the study. The survey results for the superannuation funds and the PICs are analysed separately, reflecting their different mandates.

4.3 Issues for residential property investment: superannuation funds

4.3.1 Current property types in portfolio

Retail property (100% of respondents), office property (100%) and industrial property (94%) were seen as the most popular property sectors in the superannuation fund property portfolios. Lesser emphasis was seen for the land (38%) and hotel/motel (25%) sectors. Residential property was seen in the portfolios of only two of the superannuation funds and represented 13 per cent of the portfolios of both funds.

4.3.2 Investing in the residential private rental sector

The total allocation to residential property for the two superannuation fund respondents who were investing in residential property was AU\$17.8 million (AU\$2.8 million and AU\$15 million respectively). Residential property thus accounted for only 1.3 per cent and 3.0 per cent, respectively, of their total property portfolios.

Different residential property investment strategies were used. One superannuation fund invested 100 per cent (AU\$2.8 million) in social housing via direct investment, while the other superannuation fund invested 100 per cent (AU\$15 million) in non-social housing using indirect investment (via a residential property investment vehicle).

Both superannuation funds had in-house staff in this property area, with the superannuation fund that was using indirect investment via a residential property investment vehicle also using external advisors. The superannuation fund targeting social housing focused on the bottom-end market (lower quality residential), while the superannuation fund targeting indirect investment targeted the middle market sector as per the residential property fund's mandate.

Both respondents indicated that they would exit the residential private rental sector over the next five years; neither indicated their intentions in respect to their investment in the residential property sector more broadly. The low levels of investment in residential rental property and the intended exit strategy of the two funds from this sector do not present a positive context for institutional investors and residential property.

The factors influencing investment in the residential property sector are discussed in subsequent sections.

4.3.3 Factors influencing the decision to invest in residential rental property

Institutional investor intentions for residential rental property in Australia differ significantly to those in the UK, where there exists a generally positive context going forward for UK institutional investment in residential property (IPF 2014).

All survey respondents were asked to rate a list of factors on a 5-point scale (1= 'unimportant', 2= 'less important', 3= 'important', 4= 'very important', 5= 'critical') influencing their decision to invest in residential property (Table 19). This section was completed by all of the superannuation funds surveyed (N=16), regardless of their current portfolio exposure to residential property. Once we had multiple individuals complete a Likert scale survey, we then averaged the responses in order to calculate the average score for each factor. The average scores allow us to evaluate respondents' view regarding the importance of a particular factor.

The main factors identified influencing decisions to invest in residential property were: total expected return (with an average score of 4.12 out of 5); cash flow (3.75); potential for capital appreciation (3.50); risk diversification (3.44); and inflation hedging (3.37). These factors reflect the importance attached by superannuation funds to performance analysis and how an asset contributes to the overall portfolio. In particular, these factors rated more highly than the more qualitative factors such as socially responsible investment (2.50), tax benefits (2.44) and matching liabilities (2.19).

Given an ordinal Likert scaling was employed in this questionnaire survey, the average score may incur some bias (e.g. a low average score may be caused by a few respondents' selection of 'unimportant'). Hence, the data were further examined by identifying how many respondents indicated a particular factor as 'critical/very important'. 81 per cent of superannuation fund respondents indicated that total expected return was 'critical/very important' and 56 per cent viewed cash flow as 'critical/very important'. The results further emphasise the importance of total expected return and cash flow on residential property investment.

Table 19: Importance of factors influencing a superannuation fund's decision to invest in residential property

Factor	Average score	Critical/Very Important (%)
Total expected return	4.12	81%
Cash flow	3.75	56%
Potential for capital appreciation	3.50	38%
Risk diversification	3.44	56%
Inflation hedging	3.37	50%
Portfolio regulations	3.06	32%
Lack of other investment opportunities	2.50	25%
Socially responsible investment	2.50	13%
Tax benefits	2.44	6%
Other government subsidies	2.25	6%
Match against liabilities	2.19	19%

4.3.4 Issues relating to residential private rental property investment

Numerous issues and barriers relation to residential private rental property investment have been identified by previous studies in the UK and internationally. To provide further insights into the Australian residential private rental property investment context, the barriers relating to Australian private rental property investment were also identified.

Table 20: Importance of residential private rental sector investment issues

Issue	Average score	Critical/Very Important (%)
Lack of well-structured residential investment vehicles	4.12	88%
Low returns	3.94	75%
Lack of management expertise	3.81	63%
Poor market information	3.69	69%
Rent control	3.62	57%
Tenancy regulation	3.62	62%
Small lot size and poor quality	3.56	57%
Poor liquidity	3.44	56%

Table 20 indicates the importance of specific issues associated with residential private rental property investment for superannuation funds. All items rated highly, particularly 'lack of well-structured residential investment vehicles' (4.12/5), 'low returns' (3.94), 'lack of management expertise' (3.81) and 'poor market information' (3.69). Lack of well-structured residential investment vehicles and low returns were identified as key issues for superannuation funds. These findings are consistent with previous studies (see Sections 2.4 and 2.6).

Further, 88 per cent of superannuation fund respondents saw the lack of well-structured residential investment vehicles as 'critical/very important' in respect to their investment decision-making and 75 per cent viewed the issue of low returns as 'critical/very important'. These results further confirm that both factors are the most critical barriers for institutional investment in residential rental property.

4.3.5 Desirable features for effective residential investment vehicles

Seventy-five per cent of superannuation fund respondents considered that a well-structured residential investment vehicle would encourage institutional investment in the residential private rented sector.

Table 21: Importance of desirable characteristics for an effective residential investment vehicle: superannuation funds

Characteristics	Average score	Critical/Very Important (%)
Managed by an experienced manager	4.50	94%
Diversified portfolio by location	4.06	94%
Focused on delivering a stable income stream	3.94	75%
Low gearing level (debt usage)	3.44	50%
Minimise volatility of portfolio returns	3.37	44%
Large-scale size	3.37	44%
Focus on maximising capital gains	3.31	37%
Diversified portfolio by property types	3.25	38%
Investing in social housing and/or affordable housing	2.75	19%
Investing in middle-end residential properties	2.67	7%
Investing in top-end residential properties	2.07	0%
Listed on stock exchange (liquid asset)	1.75	6%

Respondents were also asked to indicate the importance of desirable characteristics for an effective residential investment vehicle (Table 21). 'Managed by an experienced manager' was identified as 'Critical/Very Important' by 94 per cent of respondents (with an average score of 4.50 out of 5), followed by 'diversified portfolio by location' (4.06; 94%) and 'focused on delivering a stable income stream' (3.94; 75%). This clearly reflects the 'people' dimension to property funds management and the key role of the fund manager, suitable risk management strategies (e.g. diversification by location) and the importance of income returns.

Other desirable characteristics seen as being of much less importance included: diversification by property type (e.g. various residential sub-sectors) (3.25); investing in social housing /affordable housing (2.75); and the need for liquidity by listing on the stock market (e.g. REITs) (1.75). This highlights the focus on unlisted property investment vehicles in order that the superannuation funds can achieve their residential property exposure.

4.3.6 Potential problems of investing in residential investment vehicles

Superannuation fund respondents were also asked to rate potential problems with investing in residential investment vehicles. Table 22 indicates the importance attached to these items. Respondents most strongly identified 'low returns' with an average score of 4.25, 'poor market information' (3.75) and 'low quality portfolios' (3.75), with these seen as 'critical/ very important' by 82 per cent, 69 per cent and 63 per cent respectively These problems clearly relate to property portfolio quality and property information issues, rather than the broader external and internal factors of 'regulatory restrictions' (3.12), 'resistance from the Board of Directors' (2.87), or 'not being considered as a popular investment vehicle' for superannuation funds (2.50).

Table 22: Potential problems of investing in residential investment vehicles

Problem	Average score	Critical/Very important (%)
Low returns	4.25	82%
Poor market information	3.75	69%
Low quality portfolios	3.75	63%
Poor liquidity	3.12	44%
Regulatory restrictions	3.12	44%
Resistance from the Board of Directors	2.87	25%
Not considered as a popular investment vehicle	2.50	19%

4.4 Issues for residential property investment: Property Investment Companies (PICs)

4.4.1 Current property types in portfolio

For the nine PICs which responded to the survey, retail property (89% of respondents), office property (78%) and industrial property (78%) were the most popular property sectors in their portfolios. Whilst 44 per cent had land banks, no PIC invested in residential property.

4.4.2 Factors influencing the decision to invest in residential property

As with the superannuation funds, all PIC respondents were asked to rate the importance of a range of factors on a 5-point scale (1='unimportant', 2='less important', 3='important', 4='very important', 5='critical') influencing an institutional investor's decision to invest in residential property. This section was completed by all of the PICs surveyed (N=10). These results are presented in Table 23.

Table 23: Importance of factors influencing an institutional investor's decision to invest in residential property: PICs

Factor	Average score	Critical/Very important (%)			
Potential for capital appreciation	4.56	89%			
Total expected returns	4.44	89%			
Cash flow	3.56	67%			
Risk diversification	3.33	33%			
Portfolio regulations	3.00	22%			
Tax benefits	2.78	11%			
Inflation hedging	2.56	0%			
Lack of other investment opportunities	2.56	11%			
Socially responsible investment	2.22	22%			
Match against liabilities	2.22	0%			
Other government subsidies	2.00	0%			

The main factors influencing their decision to invest in residential property were 'potential for capital appreciation' (4.56/5) and 'total expected returns' (4.44), with lesser importance given to 'cash flow' (3.56) and 'risk diversification' (3.33). This finding is reinforced with 89 per cent of the

PICs seeing 'potential for capital appreciation' and 'total expected returns', respectively, as 'critical/very important'. The highly rated factors related to growth, performance and cash flow; the lesser rated factors included 'socially responsible investment' (2.22) and 'match against liabilities' (2.22).

There was general agreement regarding the importance of these factors by both the superannuation funds and PICs, with the top four factors identified by respondents being equivalent, if in a slightly different order.

4.4.3 Issues relating to residential private rental property investment

Table 24 indicates the importance of specific issues relating to residential private rental property investment by PICs. Priority was given to 'lack of well-structured residential investment vehicles' (3.75/5), 'low returns' (3.62) and 'poor liquidity' (3.62), with these viewed as 'critical/very important' by the respondents (63%, 63% and 50%, respectively). Significantly, the top two issues for the PICs, 'lack of well-structured residential investment vehicles' and 'low returns', were also the top two issues for superannuation funds, although slightly less importance was given to these issues by the PICs (PIC 3.75 versus superannuation funds 4.12 and PIC 3.62 versus superannuation funds 3.94, respectively).

Table 24: Importance of residential private rental sector investment issues: PICs

Issue	Average score	Critical/Very important (%)		
Lack of well-structured residential investment vehicles	3.75	63%		
Low returns	3.62	63%		
Poor liquidity	3.62	50%		
Lack of management expertise	3.50	50%		
Poor market information	3.37	38%		
Small lot size and poor quality	3.37	50%		
Rent control	3.00	25%		
Tenancy regulation	2.75	25%		

4.4.4 Desirable features for effective residential investment vehicles

Table 25 indicates the importance attached to various desirable characteristics for an effective residential investment vehicle.

The most important characteristics identified were that the investment vehicle was being 'managed by an experienced manager' (4.11/5) and that fund managers had a 'focus on maximising capital gains' (4.00/5). Slightly less importance was given to a 'diversified portfolio by location' (3.67) and a 'focus on delivering a stable income stream' (3.67). This again highlights the key role and appointment of appropriate fund managers (good management), suitable risk management strategies and the importance of capital and income returns.

Both PICs and superannuation funds clearly viewed management by an experienced manager as the most critical desirable characteristic for investment vehicles, with PICs placing more importance on capital gain compared to superannuation funds (PICs 4.00; superannuation funds 3.31), with the latter placing higher priority on a stable income stream (superannuation funds 3.94; PICs 3.67). The importance of diversification by location was also clearly seen as an important characteristic by both PICs and superannuation funds (respectively 3.67 and 4.06). Small differences between both PICs and superannuation funds for both factors (i.e. 'a stable income stream' and 'diversification by location') have also suggested both PICs and

superannuation funds agree that these are critical desirable characteristics for investment vehicles.

Table 25: Importance of desirable characteristics for an effective residential investment vehicle: PICs

Characteristics	Average	Critical/Very important (%)			
Managed by an experienced manager	4.11	89%			
Focus on maximising capital gains	4.00	66%			
Diversified portfolio by location	3.67	55%			
Focus on delivering a stable income stream	3.67	55%			
Large scale size	3.56	55%			
Diversified portfolio by property types	3.33	33%			
Minimise volatility of portfolio returns	3.22	33%			
Low gearing level (debt usage)	3.00	33%			
Listed on stock exchange (liquid asset)	2.89	22%			
Investing in middle-end residential properties	2.44	22%			
Investing in social housing and/or affordable housing	2.22	11%			
Investing in top-end residential properties	2.00	0%			

Being listed on the stock exchange (e.g. REITs) (2.89) and investing in social housing/affordable housing (2.22) were seen as having less importance by the PICs. This was consistent with the much less importance also seen for these characteristics by the superannuation funds; further highlighting the overall view of unlisted property investment vehicles as the most effective strategy for their residential property exposure.

4.4.5 Potential problems of investing in residential investment vehicles

As shown in Table 26, PICs also rated and prioritised potential problems with investing in residential investment vehicles. 'Low returns' was identified as the leading concern (4.00/5), followed by 'poor market information' (3.78), 'low quality portfolios' (3.78) and 'poor liquidity' (3.78). These issues clearly relate to the quality of property portfolios and property information issues, and were seen as much more important than broader external and internal factors such as 'regulatory restrictions' (3.56) and 'resistance from the Board of Directors' (2.87). They also featured as the top four problems identified by both the PICs and superannuation funds, though with some differences in emphasis between PICs and superannuation funds. For example, PICs rated poor liquidity more strongly (3.78 versus 3.12 by superannuation funds), reflecting liquidity issues associated with unlisted property funds and the more immediate involvement by PICs with this type of unlisted property investment vehicle.

Table 26: Potential problems of investing in residential investment vehicles: PICs

Problem	Average score	Critical/Very important (%)		
Low returns	4.00	67%		
Poor market information	3.78	78%		
Low quality portfolios	3.78	67%		
Poor liquidity	3.78	67%		
Regulatory restrictions	3.56	67%		
Not considered as a popular investment vehicle	3.33	44%		
Resistance from the Board of Directors	2.87	33%		

4.5 Key messages and implications

This survey has clearly highlighted a number of key issues concerning Australian institutional investors' views regarding residential property investment. The main 'take-outs' are:

- → Residential property does not feature at significant levels in Australian superannuation fund portfolios and, in most cases, is not included in their property portfolios.
- → Institutional investors currently with residential property indicate that they plan to exit the sector over the next five years.
- → Key considerations for investment in residential property by superannuation funds are performance analysis (e.g. returns, cash flow) and the contribution of residential property to the overall portfolio (e.g. diversification).
- → The lack of well-structured residential investment vehicles and low returns are critical issues in residential property investment.
- → The features most desired in an effective residential investment vehicle are 'being managed by an experienced manager', 'diversified portfolio by location' and 'delivering stable income returns with low debt'.
- → Potential low returns, poor market information and low quality portfolios are key deterrents for investment in affordable housing by institutional investors.

These results present a range of significant challenges and opportunities if we are to see increased levels of residential property in Australian institutional investor property portfolios in the future. These challenges are:

- → How can we convince institutional investors that their perceptions and concerns regarding residential property versus the commercial property sectors can be effectively addressed?
- → Can effective residential property investment vehicles (both listed and unlisted) be developed that meet the investment requirements of superannuation funds?
- → What lessons can be learnt from the US and UK experiences where residential property investment vehicles are seen as having a more positive outlook going forward?
- → How can affordable housing fit into this residential property investment space for superannuation funds?
- → What investment strategies can be used to increase the level of residential property in institutional investor portfolios in Australia?

These challenges and opportunities will be key issues addressed in the Final Report of this AHURI project. The Final Report will additionally provide modelling for residential investment vehicles to articulate the potential structure and role of residential property in institutional

investor levels.	portfolios	in	Australia	and t	to i	nform	future	strate	gies	at the	corp	orate	and	goverr	nment

5 IMPLICATIONS FOR RESIDENTIAL PROPERTY INVESTMENT VEHICLES

5.1 Key issues

This Positioning Paper has highlighted a range of key issues concerning institutional investment in residential property in Australia. It has provided the broad context to investment in residential private rental housing in Australia and internationally, and highlighted the role of institutional investors such as superannuation funds and PICs in these markets.

The report found that Australian superannuation funds have significant commercial property portfolios, but typically lack exposure to residential investment in their property portfolios. Critically, only two of the 16 superannuation funds surveyed had any exposure to residential property and this represented 13 per cent of their portfolios overall.

The lack of institutional investment by superannuation funds and PICs in residential property reflects concerns over the role of residential property in their portfolios and the general lack of both listed and unlisted property investment vehicles available and suited to Australian superannuation funds in the residential investment area. This is contrasted to the international experience in the United States and UK where there exists increasing investor interest and an increasing range of listed and unlisted residential investment vehicles available to pension funds and other institutional investors. This was largely confirmed by the survey responses by the PICs.

The AHURI survey of Australian institutional investors (superannuation funds and PICs) was insightful, identifying existing barriers to residential investment in Australia and, critically, identified the features viewed as vital to the development of an effective residential investment vehicle that would render investment in residential property in Australia more attractive.

The findings present a range of significant challenges but, importantly, also opportunities for the inclusion of increased levels of residential property in Australian institutional investor property portfolios in the future. Foremost amongst these challenges are:

- → The development of effective residential property investment vehicles (both listed and unlisted) that meet the investment requirements of superannuation funds.
- → The identification of enabling strategies that can be used to increase the level of residential property in institutional investor portfolios in Australia.

5.2 AHURI Final Report

The AHURI Final Report will provide modelling for a successful residential investment vehicle, both to articulate the potential role of residential property in institutional investor portfolios in Australia and to highlight opportunities for the inclusion of private and social rental housing in residential investment vehicles in the future.

Specific issues raised both in the AHURI survey of institutional investors and in the reported experience of international jurisdictions including the UK and US will be interrogated with a view to formulating possible enabling strategies and policy responses that will facilitate institutional investment in residential property in Australia. Relevant issues to be addressed in the Australian context include the following:

- → Affordable housing does not match the target returns needed for institutional investor portfolios in Australia.
- → A range of barriers related to existing investment vehicles, scale, yield, income, management expertise, liquidity, risk and planning (policy) currently deter or preclude consideration of residential property in institutional investor portfolios.

- → The establishment of well-structured residential investment vehicles (listed and unlisted) is essential for industry confidence in residential property as a viable option in institutional investor portfolios.
- → Identifying enabling strategies to increase the level of residential property in institutional investor portfolios is critical to engaging institutional investors and policy makers in a constructive and progressive dialogue and in building capacity in housing supply.
- → Modelling the role of residential property in institutional investor portfolios is a critical enabling strategy. The Final Report will therefore develop a range of scenarios in a mixed-asset portfolio to assess the strategic role and potential added-value of residential property in these portfolios.
- → The broader role of affordable housing in residential investment vehicles, including potential synergies with ethical investing and corporate social responsibility, requires consideration in the development of relevant corporate and government responses.

REFERENCES

- Aedes (2013) *Dutch social housing in a nutshell.* Brussels: Aedes, Dutch Association of Social Housing Organisation.
- Anari, A. & Kolari, J. W. (2002) House price and inflation. *Real Estate Economics*, 30(1), pp.67–84.
- Asia Pacific Real Estate Association (APREA) (2014) *Asia Pacific REIT statistical compendium:*June 2014. Singapore: Asia Pacific Real Estate Association.
- Australian Bureau of Statistics (ABS) (2013) Census of Population and Housing, 2011, Australia. Canberra: Australian Bureau of Statistics, Available at http://www.abs.gov.au/websitedbs/censushome.nsf/home/quickstats
- Australian Bureau of Statistics (ABS) (2013) Household income and income distribution, Australia, 2009–10. Canberra: Australian Bureau of Statistics, Cat. No. 6523.0.
- Australian Institute of Health and Welfare (AIHW) (2011) Australia's welfare 2011. Canberra: Australian Institute of Health and Welfare, Australia's Welfare Series No. 10, Cat. No. Aus 142.
- Australian Institute of Health and Welfare (AIHW) (2013) *Housing assistance in Australia 2013*. Canberra: Australian Institute of Health and Welfare, Cat. no. HOU 275.
- Australian Institute of Health and Welfare (AIHW) (2014) *Housing assistance in Australia 2014*. Canberra: Australian Institute of Health and Welfare, Cat. No. HOU 275.
- Australian Property Institute (API) (2014) *National rental affordability scheme round 5 to be discontinued.* Australian Property Institute.
- Australian Prudential Regulation Authority (APRA) (2014a) *Quarterly superannuation performance: June 2014.* Canberra: Australian Prudential Regulation Authority.
- Australian Prudential Regulation Authority (APRA) (2014b) *Annual statistical bulletin: June 2013*. Canberra: Australian Prudential Regulation Authority, Statistics.
- Ball, M. (2010) *The UK private rented sector as a source of affordable accommodation*. York, UK: Joseph Rowntree Foundation, JFR Programme Paper: Housing Market Taskforce.
- Beer, A. (1999) Housing investment and the private rental sector in Australia. *Urban Studies*, 36(2), pp.255–69.
- Berry, M. (2000) Investment in rental housing in Australia: small landlords and institutional investors. *Housing Studies*, 15(5), pp.661–81.
- Berry, M., Whitehead, C., Williams, P. & Yates, J. (2004) Financing affordable housing: a critical comparative review of the United Kingdom and Australia. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 72.
- Bond, M. T. & Seiler, M. J. (1998) Real estate returns and inflation: an added variable approach. Journal of Real Estate Research, 15(3), pp.327–38.
- Bruckner, J. J. (1997) Consumption and investment motives and the portfolio choices of homeowners. *Journal of Real Estate Finance and Economics*, 15(2), pp.159–80.
- Centraal Fonds Volkshuisvesting (CFV) (2009) *Trends in de corporatiesector 2004–2008*. Naarden: Centraal Fonds Volkshuisvesting [The Central Fund for Social Housing].
- Chan, S. H., Leung, W. K. & Wang, K. (1998) Institutional investment in REITs: evidence and implications. *Journal of Real Estate Research*, 16(3), pp.357–74.

- Chu, Y. Q. & Sing, T. F. (2004) Inflation hedging characteristics of the Chinese real estate market. *Journal of Real Estate Portfolio Management*, 10, pp.145–54.
- Council of Australian Governments (COAG) (2010) National affordable housing agreement: baseline performance report for 2008–09. Canberra: Council of Australian Governments, pp.1–158.
- Council of Australian Governments (COAG) (2012) Housing supply and affordability report. Canberra: Council of Australian Governments.
- Crook, A. D. H., Hughes, J. & Kemp, P. A. (1998) Housing investment trusts and the returns from residential lettings. *Journal of Property Research*, 15(3), pp.229–48.
- Crook, A. D. H. & Kemp, P. A. (1999) *Financial institutions and private rented housing*. Joseph Rowntree Foundation, pp.1–4.
- Crook, A. D. H. & Kemp, P. A. (2002) Housing investment trusts: a new structure of rental housing provision? *Housing Studies*, 17(5), pp.741–53.
- Department for Communities and Local Government (DCLG) (2014) *Private rented sector housing guarantee scheme*. London: Department for Communities and Local Government.
- Doherty, A. (2013) Home inspection. *I&P Real Estate Magazine*, March 2013, pp.64–65.
- Downs, D. H. (1998) The value in targeting institutional investors: evidence from the five-or-fewer rule change. *Real Estate Economics*, 26(4), pp.613–16.
- Eardley, T. & Flaxman, S. (2012) The role of community housing organisations in meeting the housing and support needs of people who are homeless. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 147.
- Eichholtz, P. M. A., Koedijk, K. G. & de Roon, F. A. (2002) *The portfolio implications of home ownership*. Maastricht University and University of Armsterdam.
- Englund, P., Hwang, M. & Quigley, J. M. (2002) Hedging housing risk. *Journal of Real Estate Finance and Economics*, 24(1/2), pp.167–2002.
- European Public Real Estate Association (EPRA) (2014) *EPRA research: Monthly statistical bulletin June 2014.* Brussels, Belgium: European Public Real Estate Association, pp.1–220.
- Fama, E. F. & Schwert, G. W. (1977) Asset returns and inflation. *Journal of Financial Economics*, 5(2), pp.115–46.
- Flavin, M. & Yamashita, T. (2002) Owner-occupied housing and the composition of the household portfolio. *American Economic Review*, 92(1), pp.345–62.
- Future Fund (2014) Annual Report. Canberra: Future Fund.
- Geltner, D. M., Miller, N. G., Clayton, J. & Eichholtz, P. (2014) *Commercial Real Estate Analysis and Investments 3rd Edition*. Mason, OnCourse Learning.
- Ghosh, C. & Sirmans, C. F. (2003) Board independence, ownership structure and performance: evidence from real estate investment trusts. *Journal of Real Estate Finance and Economics*, 26(2), pp.287–318.
- Gibb, K. (2011) Delivering new affordable housing in the age of austerity: housing policy in Scotland. *International Journal of Housing Markets and Analysis*, 4(4), pp.357–68.
- Gibb, K., Duncan, M. & Stephens, M. (2013) *Innovative financing of affordable housing:* international and UK perspectives. Water End: Joseph Rowntree Foundation.

- Glascock, J. L. (2004) Consultation response to HM Treasury on Promoting more flexible investment in property. York, UK: Joseph Rowntree Foundation.
- Goetzmann, W. N. (1993) The single family home in the investment portfolio. *Journal of Real Estate Finance and Economics*, 6(3), pp.201–22.
- Goodchild, R. 2014. RE: Residential investment. (Personal Communication). September 2014.
- Hamelink, F. & Hoesli, M. (1996) Swiss real estate as a hedge against inflation: new evidence using hedonic and autoregressive models. *Journal of Property Finance*, 7(1), pp.33–49.
- Hardin , W. G. I. & Wolverton, M. (1999) Equity REIT property acquisitions: do apartment REITs pay a premium? *Journal of Real Estate Research*, 17(1/2), pp.113–26.
- He, L. T. (2000) Causal relationships between apartment REIT stock returns and unsecuritized residential real estate. *Journal of Real Estate Portfolio Management*, 6(4), pp.365–72.
- Henman, P. & Jones, A. (2012) Exploring the use of residual measures of housing affordability in Australia: methodologies and concepts. AHURI Final Report 180, Melbourne, Australian Housing and Urban Research Institute.
- Hoesli, M. & Hamelink, F. (1997) An examination of the role of Geneva and Zurich housing in Swiss institutional portfolios. *Journal of Property Valuation and Investment*, 15(4), pp.354–71.
- Hoesli, M., Lizieri, C. & MacGregor, B. (2008) The inflation hedging characteristics of US and UK investments: a multi-factor error correction approach. *Journal of Real Estate Finance and Economics*, 36(2), pp.183–206.
- Huang, H. & Hudson-Wilson, S. (2007) Private commercial real estate equity returns and inflation. *Journal of Portfolio Management*, Special Issue, pp.63–73.
- Hulse, K. (2003) Housing allowances and private renting in liberal welfare regimes. Housing, *Theory and Society*, 20(1), pp.28–42.
- Hulse, K., Burke, T., Ralston, L. & Stone, W. (2012) *The Australian private rental sector:* changes and challenges. Melbourne: Australian Housing and Urban Research Institute, AHURI Positioning Paper No. 149.
- Hulse, K., Reynolds, M. & Yates, J. (2014) Changes in the supply of affordable housing in the private rental sector for lower income households, 2006–2011. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 235.
- Hutchison, N. (1994) Housing as an investment? A comparison of returns from housing with other types of investment. *Journal of Property Finance*, 5(2), pp.47–61.
- IBISWorld (2015) *IBISWorld industry report L6711: residential property operators in Australia; April 2015.* Melbourne: IBISWorld.
- International Co-operative Alliance Housing (ICAHousing) (2014) Co-operative Housing in Switzerland. Geneva Switzerland: International Co-operative Alliance.
- Investment Property Databank (IPD) (2014a) *IPD Australia all property index: June 2014.*Sydney: Investment Property Databank.
- Investment Property Databank (IPD) (2014b) *UK annual all property index 2013.* London: Investment Property Databank.
- Investment Property Databank (IPD) (2014c) Netherlands annual social housing property index 2013. London: Investment Property Databank.
- Investment Property Forum (IPF) (2014) *Institutional attitudes to investment in UK residential property*. London: Investment Property Forum, pp.22–24.

- Jacobs, K., Natalier, K., Slatter, M., Berry, M., Stoakes, A., Seelig, T., Hutchison, H., Greive, S., Phibbs, P. & Gurran, N. (2005) *A review of private rental support programs*. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 86.
- Jones Lang LaSalle (JLL) (2014a) Global real estate transparency index. London: Jones Lang LaSalle.
- Jones Lang LaSalle (JLL) (2014b) Brave new world: examining the case for institutional investment in affordable housing. London: Jones Lang LaSalle.
- Jones, C. (2007) Private investment in rented housing and the role of REITs. *International Journal of Housing Policy*, 7(4), pp.383–400.
- Jud, G. D., Wingler, T. R. & Winkler, D. T. (2006) Single-family housing and wealth portfolios. *Journal of Real Estate Portfolio Management*. 12(1), pp.13–22.
- Khan-Phillips, M. (2013) Building a new asset class. I&P Real Estate, March, 60–62.
- KPMG (2012) Social Housing Initiative Review September 2012. KPMG, pp.1–89.
- Lamont, C. (2008) Housing affordability crisis: fact or fiction. *The Australian Economic Review*, 41(2), pp.194–99.
- Lawson, J., Berry, M., Hamilton, C. & Pawson, H. (2014) *Enhancing affordable rental housing investment via an intermediary and guarantee*. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 220.
- Lawson, J., Gilmour, T. & Milligan, V. (2010) *International measures to channel investment towards affordable rental housing*. Melbourne: Australian Housing and Urban Research Institute: RMIT Research Centre and UNSW–UWS Research Centre, Research Paper for the Government of Western Australia.
- Lawson, J., Milligan, V. & Yates, J. (2012) Housing supply bonds—a suitable instrument to channel investment towards affordable housing in Australia? Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 188.
- Lee, C. L. (2008) Housing in Australia as a portfolio investment. *International Journal of Housing Markets and Analysis*, 1(4), pp.352–61.
- Lee, C. L. (2009) Volatility transmission in Australian REIT futures. *Journal of Real Estate* Portfolio Management, 15(3), pp.221–38.
- Lee, C. L. (2014) The inflation-hedging characteristics of Malaysian residential property. International Journal of Housing Markets and Analysis, 7(1), pp.61–75.
- Lee, C. L. & Lee, M.-L. (2012) Hedging effectiveness of REIT futures. *Journal of Property Investment and Finance*, 30(3), pp.257–81.
- Lee, C. L. & Lee, M.-L. (2014) Do European real estate stocks hedge inflation? Evidence from developed and emerging markets. International *Journal of Strategic Property Management*, 18(2), pp.178–97.
- Lee, C. L., Stevenson, S. & Lee, M.-L. (2014) Futures trading, spot price volatility and market efficiency: evidence from European real estate securities futures. *Journal of Real Estate Finance & Economics*, 48(2), pp.299–322.
- Liang, Y., Chatrath, A. & McIntosh, W. (1996) Apartment REITs and apartment real estate. *Journal of Real Estate Research*, 11(3), pp.277–89.
- Milligan, V., Gurran, N., Lawson, J., Phibbs, P. & Phillips, R. (2009) *Innovation in affordable housing in Australia: bringing policy and practice for not-for-profit housing organisations together.* Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 134.

- Milligan, V., Phibbs, P., Fagan, K. & Gurran, N. (2004) *A practical framework for expanding affordable housing services in Australia: learning from experience*. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report 65.
- Milligan, V., Yates, J., Wiesel, I. & Pawson, H. (2013) Financing rental housing though institutional investment volume 1: outcomes from investigated panel. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 202.
- Montezuma, J. (2004) Housing investment in an institutional portfolio context: a review of the issues. *Property Management*, 22(3), pp.230–49.
- Montezuma, J. (2006) A survey of institutional investors' attitudes and perceptions of residential property: the Swiss, Dutch and Swedish cases. *Housing Studies*, 21(6), pp.883–908.
- Montezuma, J. & Gibb, K. (2006) Residential property as an institutional asset: the Swiss and Dutch cases. *Journal of Property Research*, 23(4), pp.323–45.
- National Association of Real Estate Investment Trusts (NAREIT) (2014) *REITWatch*. Washington D.C.: National Association of Real Estate Investment Trusts.
- National Housing Supply Council (NHSC) (2012) Housing supply and affordability –key indicators, 2012. Canberra: National Housing Supply Council.
- National Rental Affordability Scheme (NRAS) (2014) National Rental Affordability Scheme quarterly performance report as at 31 December 2013. Canberra: Australian Government.
- Newell, G. (2007a) The significance of property in industry-based superannuation funds. Australian and New Zealand Property Journal, 1, pp.34–43.
- Newell, G. (2007b) The significance of wholesale property funds. *Australian and New Zealand Property Journal*, 1, pp.216–23.
- Newell, G. (2008) The significance of property in superannuation funds. *Australian and New Zealand Property Journal*, 2, pp.670–77.
- Newell, G. (2010a) The effectiveness of A-REIT futures as a risk management strategy in the Global Financial Crisis. *Pacific Rim Property Research Journal*, 16(3), pp.339–57.
- Newell, G. (2010b) *The significance of real estate in Asian pension funds*. Singapore: Asia Pacific Real Estate Association, APREA Research Report.
- Newell, G. (2013) REITs in Australia: moving forward from the GFC, in R. Sotelo & S. McGreal (eds), Real Estate Investment Trusts in Europe: Evolution, Regulation, and Opportunities for Growth. Heidelberg: Springer, pp.69–76.
- Newell, G. (2014) *The increasing importance of real estate in Asian pension funds*. Singapore: Asia Pacific Real Estate Association.
- Newell, G. & Fischer, F. (2008) The role of residential REITs in REIT portfolios. *Journal of Real Estate Portfolio Management*, 15(2), pp.129–39.
- Newell, G. & Lee, C.L. (2011) The impact of alternative assets on the role of direct property in Australian mixed-asset portfolios. *Pacific Rim Property Research Journal*, 17(4), pp.531–59.
- Newell, G. & Lee, C.L. (2014) The risk-adjusted performance of social housing in the Netherlands: 1999–2012. *The 2014 European Real Estate Society Conference*, Bucharest.
- Newell, G. & Tan, Y. K. (2004) The development and performance of listed property trust futures. *Pacific Rim Property Research Journal*, 10(2), pp.132–45.

- Ooi, J. T. L., Newell, G. & Sing, T.-F. (2006) The growth of REIT markets in Asia. *Journal of Real Estate Literature*, 14(2), 203–22.
- Ooi , J. T. L. & Wong, W.-C. (2013) Asian REITs: growing into maturity, in R. Sotelo & S. McGreal (eds), Real Estate Investment Trusts in Europe: Evolution, Regulation, and Opportunities for Growth. Heidelberg: Springer, pp.77–89.
- Pensions & Investments (P&I) (2013) *Pensions & Investments databook*. New York: Pensions & Investments.
- Pregin (2013) Real estate spotlight: December 2013. New York: Pregin.
- Preqin (2014) Real estate spotlight: October 2014. New York: Preqin.
- Property Investment Research (PIR) (2014) *Australian property funds industry survey 2014*. Melbourne: Property Investment Research.
- Real Estate Institute of Australia (REIA) (2010) REIA *Real Estate Market Facts*. Sydney: Real Estate Institute of Australia.
- Reddy W. (2013) Superannuation funds and property allocation strategies: what is the mix? direct property, listed property or both. *Pacific Rim Property Research Journal*, 19(1), pp.57–79.
- Reddy W. (2014) Evaluating strategies and dynamic property asset allocation approaches for Australian superannuation funds. *Pacific Rim Property Research Journal*, 20(1), pp.55–74.
- Reddy W., Higgins, D., Wist, M. & Garimort, J. (2013) Australian industry superannuation funds: investment strategies and property allocation. *Journal of Property Investment and Finance*, 31, pp.462–80.
- Resolution Foundation (2011) *Meeting the housing needs of low-to-middle earners*. London: Resolution Foundation.
- Resolution Foundation (2012) Making institutional investment in the private rented sector work. London: Resolution Foundation.
- Rowley, S. & Ong, R. (2012) Housing affordability, housing stress and household wellbeing in Australia. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report 192.
- Russell Investments (2014) 2014 long-term investing report. Sydney: Russell Investments.
- Scanlon, K., Whitehead, C., Williams, P. & Gibb, K. (2013) *Building the rented sector in Scotland.* Edinburgh: Homes for Scotland.
- Sieracki, K. (2013) UK REITs Are they delivering what was expected?, in R. Sotelo & S. McGreal (eds), Real Estate Investment Trusts in Europe: Evolution, Regulation, and Opportunities for Growth. Heidelberg: Springer.
- Sing, T. F. & Low, S.-H. Y. (2000) The inflation-hedging characteristics of real estate and financial assets in Singapore. *Journal of Real Estate Portfolio Management*, 6(4), pp.373–85.
- Sovereign Wealth Fund Institute (SWFI) (2014) Fund rankings. New York: SWF Institutute.
- Stevenson, S. (2000) A long-term analysis of regional housing and inflation. *Journal of Housing Economics*, 9(1–2), pp.24–39.
- Stevenson, S. (2013) The development and maturing of the US REIT sector, in R. Sotelo & S. McGreal (eds), *Real Estate Investment Trusts in Europe: Evolution, Regulation, and Opportunities for Growth.* Heidelberg: Springer.

- Stone, W., Burke, T., Hulse, K. & Ralston, L. (2013) Long-term private rental in a changing Australian private rental sector. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 209.
- Tanton, R. & Phillips, B. (2013) A measure of the depth of housing stress and its application in Australia. *Economic Papers*, 32(1), pp.99–109.
- Thornley, B., Wood, D., Grace, K. & Sullivant, S. (2011) *Impact investing: a framework for policy design and analysis*. Massachusetts: Harvard University.
- Vandevyvere, W. & Zenthofer, A. (2012) *The housing market in the Netherlands*. Brussels: European Commission.
- Wechsler, S. A. (2013) The role of REITs in strategic investment portfolios, in R. Sotelo & S. McGreal (eds), Real Estate Investment Trusts in Europe: Evolution, Regulation, and Opportunities for Growth. Heidelberg: Springer.
- Wulff, M., Reynolds, M., Arunachalam, D., Hulse, K. & Yates, J. (2011) *Australia's private rental market: the supply of, and demand for, affordable dwellings*. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No 168.
- Yates, J. (2007) The polarisation of housing affordability: National Research Venture 3: housing affordability for lower income Australians. Sydney: Australian Housing and Urban Research Institute: Sydney Research Centre, Research Paper No. 8.

AHURI Research Centres

AHURI Research Centre—Curtin University
AHURI Research Centre—RMIT University
AHURI Research Centre—Swinburne University of Technology
AHURI Research Centre—The University of Adelaide
AHURI Research Centre—The University of New South Wales
AHURI Research Centre—The University of Sydney
AHURI Research Centre—The University of Western Australia
AHURI Research Centre—University of Tasmania

Australian Housing and Urban Research Institute Level 1, 114 Flinders Street, Melbourne Victoria 3000 Phone +61 3 9660 2300

Email information@ahuri.edu.au Web www.ahuri.edu.au