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Final Report

The opportunity of unlisted wholesale residential property funds in enhancing affordable housing supply

authored by

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ACRONYMS

ABS	Australian Bureau of Statistics
ACSSR	Australian Centre for Corporate Social Responsibility
AHURI	Australian Housing and Urban Research Institute Limited
AIHW	Australian Institute of Health and Welfare
APRA	Australian Prudential Regulation Authority
A-REITs	Australian Real Estate Investment Trusts
ASIC	Australian Securities and Investments Commission
AUM	Assets under Management
ASX	Australian Securities Exchange
CHP	Community Housing Provider
COAG	Council of Australian Governments
CSR	Corporate Social Responsibility
DPF	Direct Private Fund
DPS	Direct Property Syndicate
DHA	Defence Housing Australia
ESG	Environmental Social Governance
GFC	Global Financial Crisis
IPD	Investment Property Databank
IPF	Investment Property Forum
MPT	Modern Portfolio Theory
NAHA	National Affordable Housing Agreement
NHSC	National Housing Supply Council
NRAS	National Rental Affordability Scheme
PCA	Property Council of Australia
PICs	Property Investment Companies
PIR	Property Investment Research
PSW	Property Securities Fund (Wholesale)
RBA	Reserve Bank of Australia
REIA	Real Estate Institute of Australia
REITs	Real Estate Investment Trusts
SRI	Socially Responsible Investment
SWOT	Strengths, weaknesses, opportunities and threats
UK	United Kingdom
URF	Unlisted Retail Fund
UWF	Unlisted Wholesale Fund

US	United States of America

EXECUTIVE SUMMARY

Aim of the study

The demand for private rental properties has increased significantly in recent years. In 2014, it was estimated that the Australian private rental market included 2.4 million rental dwellings with 5 million renters across Australia, reflecting the role of the private rental residential sector in Australia in meeting housing demand. Nevertheless, the lack of institutional investment in residential property reflects concerns over the general lack of both listed and unlisted property investment vehicles available and suited to Australian superannuation funds in the residential investment area. This AHURI Final Report examines the opportunity of residential investment vehicles in enhancing the supply of private rental dwellings, particularly the supply of affordable rental dwellings in Australia.

Research design and method

This research consists of three key components. The first component was to provide a strategic positioning of the development of an effective investment vehicle. Importantly, the most suitable model to encourage institutional investment in residential property, particularly affordable housing, was identified by comparing the characteristics of listed and unlisted residential investment vehicles. The second stage of the analysis examined the role of residential property in a mixed-asset portfolio. The risk and return levels of Australian residential property were estimated and compared with the other major assets. The role of Australian residential property was also assessed by using Modern Portfolio Theory. Finally, the third component of the analysis developed the model of an effective property investment vehicle for affordable housing. The structure of the fund was critically discussed. The performance of the proposed model was also estimated by using a financial modelling analysis.

Key findings

There are several key findings from this AHURI Final Report:

1. *Australian residential property is an effective investment asset class.*

Australian residential property presents a strong picture regarding the strategic contribution of residential property to investment portfolios in Australia. Specifically, Australian residential property delivers strong long-run risk-adjusted returns, as well as portfolio diversification benefits, indicating the strategic role and potential added-value of residential property in these portfolios.

2. *Unlisted wholesale residential property fund as the most appropriate model.*

Unlisted wholesale residential property funds are the most appropriate model for attracting large-scale investment in residential property in Australia, and particularly for affordable housing investment. Unlisted wholesale residential property funds require a significant minimum investment, with low debt levels, and tend to be much less volatile and far more stable in their investment returns. These features are very consistent with the appetite of institutional investors such as superannuation funds.

3. *The proposed unlisted wholesale residential property fund is an effective residential investment vehicle.*

The performance analysis and portfolio analysis suggested that the proposed unlisted wholesale residential property fund offers a moderate risk-adjusted return, which is higher than for stocks and Australian Real Estate Investment Trusts (A-REITs). The analysis also demonstrated the unlisted wholesale residential property fund’s return-enhancing ability and its risk-reducing facility, reflecting that the unlisted wholesale residential property fund should be considered as a strategic asset in institutional investors' mixed-asset portfolios.

4. *Weak evidence is available to support the view that the proposed unlisted wholesale affordable housing fund is an effective residential investment vehicle.*

Mixed results were evident for the unlisted wholesale affordable housing fund. In case 1 with the adjustment rate of 0.42, the inclusion of the unlisted wholesale affordable housing fund showed a marginal return enhancement and some risk diversification benefits over the full risk spectrum.

However, no comparable evidence was observed for the case when the adjustment rate of 0.60 was employed. The unlisted wholesale affordable housing fund with the adjustment rate of 0.60 (case 2) only features at low-risk levels in Australian superannuation fund portfolios. The lesser role of affordable housing with the adjustment rate of 0.6 in a mixed-asset portfolio clearly highlights the importance of reliable information regarding affordable housing to further examine its role in an Australian context.

5. *Key enabling strategies for future delivery are identified.*

Several key enabling strategies for the future delivery and investor acceptance/support for the unlisted wholesale residential property fund and the unlisted wholesale affordable housing fund are identified. These strategies include:

1. The ongoing support and commitment from the sponsor (i.e. housing operators) is required.
2. Selecting a fund manager with an outstanding track record is essential for industry confidence in residential property investment.
3. Targeted and effective promotion of the unlisted wholesale affordable housing fund to institutional investors with a strong corporate social responsibility (CSR) mandate.
4. Ongoing support from government is required.
5. Ongoing support from the housing industry in benchmarking the performance for residential property is paramount.
6. Active promotion of affordable housing funds to superannuation funds and major property fund managers.
7. Introduce a liquidity protocol.

Conclusion and policy implications

Overall, the establishment of the unlisted wholesale residential property fund and the unlisted wholesale affordable housing fund are critical for industry confidence in residential property, particularly affordable housing, as a viable option in institutional investor portfolios. This AHURI Final Report has clearly highlighted the challenges and opportunities for housing and affordable housing to be structured into an effective property investment vehicle that would be attractive to superannuation funds in Australia; particularly those with a strong Corporate Social Responsibility (CSR) mandate. An unlisted wholesale residential property fund was identified as the most suitable investment vehicle; able to be extended to an unlisted wholesale affordable housing fund to accommodate affordable housing in their portfolios.

While a number of key challenges remain and need to be addressed in the policy implementation area, commitment and buy-in at all level of stakeholders including government, investors, Community Housing Providers (CHPs) and superannuation funds should see the effective delivery of a high quality and effective property investment vehicle to address the style of investment needed for housing and affordable housing in institutional portfolios in Australia. Addressing these key challenges and opportunities should see the effective delivery of an enhanced affordable housing supply via a high quality property investment vehicle, that is currently not available in Australia, to the significant benefit of the affordable housing sector in Australia.

The report also identifies four key areas for policy development:

1. Reshaping the policy setting on taxation to encourage the development of the unlisted wholesale affordable housing fund.
2. Strategies to promote the unlisted wholesale affordable housing fund.
3. Ongoing support from the housing industry in benchmarking the performance for residential property, particularly affordable housing.
4. Long-term institutional investment is required across the full spectrum of residential property including affordable housing, with affordable housing seen as a key focus; particularly with the increasing CSR mandates of superannuation funds.

1 INTRODUCTION

1.1 Background

A recent Council of Australian Governments (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, particularly first home buyers, are forced to seek private rental accommodation (Lee & Reed 2014). This has acted to increase the demand for private market rental properties (AIHW 2011; Wulff et al. 2011).

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 included 2.4 million rental dwellings with 5 million renters across Australia (IBISWorld 2014). In recent years, the demand for private rental properties has increased significantly. 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 2011). 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 private 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.

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 2008, the 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] These figures demonstrate the significant role of the private rental market in the Australian housing sector. However, the current private rental market is dominated by individual investors. The lack of institutional investment in the private rental market has been described as a structural weakness in the Australian rental market (Berry 2000). Importantly, the potential role of investors, particularly institutional investors, and the opportunity of residential investment vehicles in enhancing the supply of private rental dwellings are highlighted by Beer (1999).

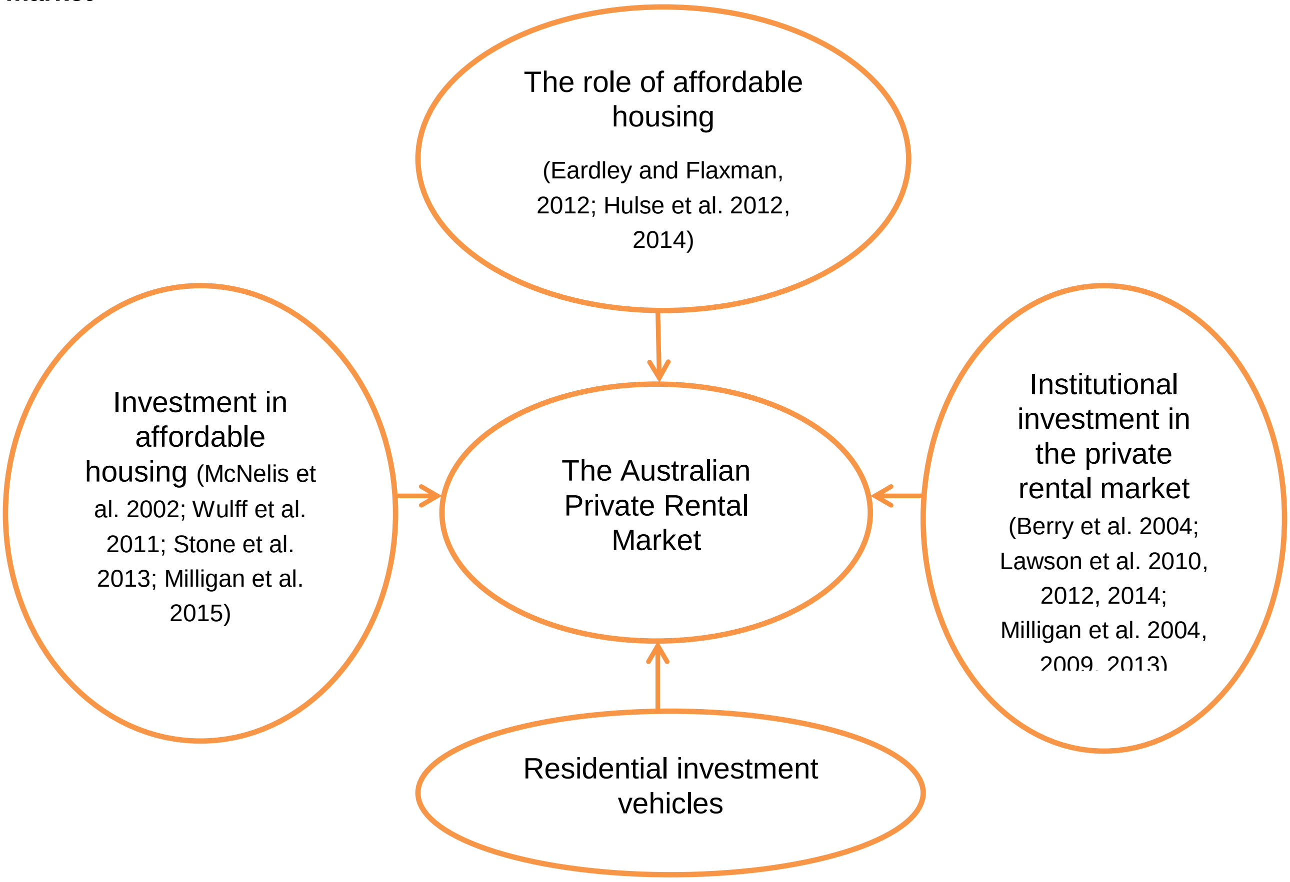
A large number of AHURI studies have examined this structural weakness and proposed strategies to encourage large-scale institutional investment in the private rental market (Berry et al. 2004; Milligan et al. 2004; Lawson et al. 2012; Milligan et al. 2013). Recently, Milligan et al. (2013) suggested 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, unlisted wholesale residential property funds and unlisted retail residential property funds have been introduced to encourage investment in the private rental market and enhance the supply of rental properties. Residential REITs in the United States (US), for example, 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. Although US residential REITs have been successful in enhancing the supply of rental properties, the US model primarily involves high-quality rental properties for middle- or high-income households. Affordable rental properties for low-income renters have been largely ignored by US REITs (Glascock 2004; Jones 2007).

[1] The National Affordable Housing Agreement (2009) is an agreement by COAG, which came into effect on 1 January 2009. It supersedes the Commonwealth State Housing Agreement (2003) between the Australian Government and the Australian states and territories.

Numerous AHURI studies have built a substantial body of research evidence on affordable rental housing. The studies have suggested 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). 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. Milligan et al. (2013, 2015) have also highlighted that CHPs could be a mechanism for increasing the supply and diversity of housing for low- and moderate-income renters. Despite CHPs having been the main providers of, and investors in, Australian affordable rental housing, the CHPs have had little capacity to raise private finance for additional affordable housing developments. This sees that CHPs continue to play a constrained role in the provision of affordable housing (Eardley & Flaxman 2012). It is, therefore, essential to develop enhanced pathways for the involvement of institutional investors to expand the supply of affordable rental housing for low-income renters and subsequently in reducing housing stress.

A snapshot of previous related AHURI studies is shown in Figure 1 below. Extensive AHURI studies have been devoted to assess the strategies to encourage large-scale institutional investment in residential properties, the importance of affordable rental housing in meeting the needs of all renters, particularly low-income renters, and the role of CHPs in enhancing affordable housing. Although these studies have provided an enhanced understanding of the Australian private rental market, no dedicated study has been undertaken on the role of residential investment vehicles in enhancing the supply of private rental properties in general and the supply of affordable rental housing in particular. In this context, it is critical that we have a comprehensive and detailed understanding of the private rental sector. More specifically, it is essential to examine the supply of private rental housing, with a focus on the opportunity of residential investment vehicles in enhancing the supply of private rental dwellings, particularly the supply of affordable rental dwellings in Australia.

Figure 1: Snapshot of previous related AHURI studies regarding the Australian private rental market



1.2 Objectives of the study

The study explores the current opportunity in Australia to develop an effective residential investment vehicle to expand the supply of rental housing, particularly affordable housing, and contribute to meeting Australia's housing needs in the medium to long term. The report seeks to provide evidence needed to answer the following questions:

1. What is the viability of listed versus unlisted residential investment vehicles in enhancing rental properties?
2. What is the possible application of residential investment vehicles for Australia?
3. What are the expected return and risk profiles for the proposed model?
4. What other actions would be required to ensure success of this model?

1.3 Methodology of the study

This Final Report focuses on the development of a model for an effective residential investment vehicle in Australia, on the basis of the existing residential investment vehicles identified in the AHURI Positioning Paper (Newell et al. 2015).

The Positioning Paper also reported the results of a survey of Australian institutional investors and outlined the desirable features of an effective residential investment vehicle. The Positioning Paper set the broad context for assessing the opportunity for the effective implementation of residential investment vehicles in Australia.

After the finalisation of the Positioning Paper through surveys, the characteristics of listed and unlisted residential investment vehicles were compared and the most desirable model identified in this Final Report. Thereafter, we proposed a residential investment vehicle that was the most feasible model to enhance affordable rental properties.

To ensure this proposed model will be viable, a hypothetical residential portfolio was formed. Importantly, modern portfolio theory has been applied to examine the expected return and risk of the proposed model. Lastly, the research team sought further feedback from stakeholders such as the Property Council of Australia in May 2015. The draft final report and key findings was presented to them and their feedback was incorporated in the Final Report. This consultation and engagement process contributed to the design of a model for an effective policy-oriented residential investment vehicle. The research questions and methodologies of this study are summarised in the following table.

Table 1: Research questions and methodology

Research questions	Methodology
RQ1: What is the viability of listed versus unlisted residential investment vehicles in enhancing affordable rental properties?	→ A content analysis
RQ2: What is the possible application of residential investment vehicles for Australia?	→ A content analysis
RQ3: What are the expected return and risk profiles for the proposed model?	→ Forming a hypothetical housing portfolio. → Financial modelling based on the hypothetical portfolio.
RQ4: What other actions would be required to ensure success of this model?	→ Stakeholder discussion

1.4 Report structure

Chapter 2 provides contextual information for this Final Report. It describes the key findings of the Positioning Paper which provides a broad contextual platform for residential property investment by institutional investors, such as superannuation funds in Australia. 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 lower income renters in Australia. A critical review of the findings of the Positioning Paper allows us to identify enabling strategies that can be used to increase the level of residential property in Australian institutional investor portfolios and develop an effective residential investment vehicle in Australia.

Chapter 3 discusses the findings on the strategic positioning of the development of an effective investment vehicle. A closer examination of the characteristics of various equity investment vehicles (both listed and unlisted) was undertaken. Importantly, the most suitable model was identified in this chapter. Specifically, unlisted wholesale residential property funds would be the most effective strategy to encourage institutional investment in residential property.

Chapter 4 provides a review of Australian unlisted wholesale property funds. The significance of unlisted wholesale property funds and the level of support from superannuation funds are also discussed. Obviously, Australian superannuation funds frequently use unlisted wholesale property funds to gain direct property exposure.

Chapter 5 examines the role of residential property in a mixed-asset portfolio. The return and risk levels of Australian residential property were estimated and compared with major assets (stocks, bonds and commercial properties). A hypothetical residential portfolio was formed by using Modern Portfolio Theory.

Chapter 6 develops an unlisted wholesale residential property fund. The structure of the fund was discussed critically. A SWOT analysis was performed. The expected return and risk of the hypothetical housing portfolios were estimated, while Chapter 7 is the concluding chapter.

2 RESEARCH BACKGROUND AND SUMMARY OF PREVIOUS WORK

The AHURI Positioning Paper of Newell et al. (2015) has provided a very comprehensive context to residential property investment; particularly highlighting the role of effective residential property investment vehicles in enhancing the involvement of institutional investors in the private rental residential sector. This Positioning Paper provided 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.

Specifically, all the related academic papers and industry reports were reviewed to provide an enhanced understanding of the issues of investing in the private rental residential sector (see Chapter 2 of the Positioning Paper). The stature of institutional investment in residential property in Australia and internationally has been critically assessed (see Chapter 3 of the Positioning Paper). To provide a fuller understanding of the institutional investors' attitudes towards residential property investment, a survey of Australian institutional investors regarding residential property investment was conducted (see Chapter 4 of the Positioning Paper). This chapter draws on the main findings from the Positioning Paper. These have been critically discussed to allow the identification of enabling strategies that can be used to increase the level of residential property in Australian institutional investor portfolios and develop an effective residential investment vehicle in Australia; in particular for affordable housing.

2.1 The issues of investing in the private rental residential sector

The demand of the private rental sector has increased in recent years. This can be attributed to the decline in housing affordability. A steady growth of long-term private renters is also evident in recent years. Importantly, some households, such as single-parent households with dependent children, could face the prospect of lifelong tenure in this rental sector (Hulse et al. 2012; Stone et al. 2013). Therefore, the private rental sector is playing an increasing role in the Australian housing system.

Nevertheless, there is a structural weakness in the Australian residential rental market, which is the typical lack of exposure to residential investment by Australian institutional investors. The majority of rental stock in Australia is owned by individual investors over many decades (Berry 2000; Milligan et al. 2013). Numerous key obstacles for institutional investing in residential properties have also been identified. The barriers include management issues, the lack of sufficient scale, poor liquidity, political risk, market information and poor returns (Crook & Kemp 2002; Lawson et al. 2010, 2012).

To provide a fuller understanding of institutional investing barriers in the Australian residential rented sector, a survey of Australian institutional investors was also conducted by Newell et al. (2015). Factors influencing an institutional investor's decision to invest in residential property largely related to performance analysis (e.g. returns, cash flow) and how residential property contributed to the overall portfolio (e.g. diversification). Institutional investors also asserted that the absence of well-structured residential investment vehicles, low returns, the lack of management expertise and poor market information were key obstacles for them to invest in residential property. Overall, well-structured residential investment vehicles and low returns are fundamentally important issues to Australian institutional investors. A recent study by IPF (2014) in the UK has also found a strong relationship between institutional investor involvement in the residential sector and the availability of investment organisations.

Comparable evidence is also provided by Crook et al. (1998). They noted that financial institutions are generally unwilling to invest in the private rental sector through direct ownership. Crook and Kemp (1999) identified the lack of suitable residential investment vehicles as the key important institutional investment barrier. Milligan et al. (2013) have also highlighted that REITs, a tax transparent investment vehicle, could encourage institutional investors to invest in residential properties. As a result, they also suggested that the establishment of a tax transparent residential investment vehicle is a critical strategy for attracting large-scale institutional investment into the private rental market and for creating the change in ownership structure.

Residential investment vehicles have been used internationally. In the US, residential REITs have successfully attracted a large scale of institutional investment and enhanced the supply of dwellings. 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 at June 2014. The sector is the second largest REIT sector in the US (NAREIT 2014). Nonetheless, affordable rental housing has been largely ignored by US REITs.

Interestingly, Jones (2007) has also discussed that the existence of successful REITs in a country does not necessarily mean that residential REITs will be widely accepted. This is confirmed by the Australian residential investment context. 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 (Newell et al. 2015). Jones (2007) investigated the differences between the US and Australian residential property markets. He attributed the lukewarm response of residential REITs in Australia to the low rate of return of the Australian residential property market and the difference in terms of the ownership patterns of large apartment blocks. Specifically, most of the large apartment stock is owned by large landlords in the US, whereas the private rental market in Australia is mainly driven by small investors (Berry 2000). As a result, he concluded that a flourishing private rental sector and the existence of large-scale landlords, with a deep local market, are the key success factors for residential REITs.

Similar to the Australian REIT market, residential REITs in the UK and other countries did not successfully attract large-scale investment in the private rental sector. Jones (2007) also suggested that, to increase the depth of rented markets and the availability of large rented portfolios, the conversion of the large UK housing associations to REITs would be the most likely route for the long-term growth of the private rental sector. Nonetheless, many of these housing associations invest in social housing or affordable housing. Therefore, the quality of these properties may not be attractive to institutional investors. To increase the supply of affordable housing, other vehicles have been employed overseas. For instance, guaranteed bonds for housing associations have been used in the UK, the Netherlands and Switzerland (Gibb et al. 2013; Scanlon et al. 2013).

2.2 The stature of institutional investment in residential property in Australia

Superannuation funds in Australia have over $1.9 trillion in assets at December 2014 (APRA 2015); being significant institutional investors. This portfolio typically comprises local shares (26%), international shares (25%), local fixed income (9%), international fixed income (6%), cash (8%) and property (9%). Within this 9 per cent allocation to property, this consists of 7 per cent unlisted property and 2 per cent listed property (APRA 2014). Superannuation funds do not generally invest directly in acquiring their own property assets. To achieve this 9 per cent allocation to property, unlisted wholesale property funds and property securities funds have been widely used.

This suggests that property funds management plays a critical role in attracting large-scale institutional investment in the property sector. As of June 2014, the property funds management sector in Australia had over $285 billion in assets under management. With over 356 property funds involving over 5200 properties, these property funds provide the major sources of property exposure for the leading institutional investors in Australia such as superannuation funds. Nevertheless, residential property is a small component in the property funds management space. Only accounting for $1 billion, there are 22 residential property funds, with only 25 properties in their portfolios. This sees residential property funds only accounting for 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 particular, residential property only comprised 0.2 per cent to 0.5 per cent of total property assets and less than 2 per cent of property investors over 2006–14. This further highlights residential property's much lesser role compared to the other major property sub-sectors, such as office, retail and industrial property (PIR 2014).

As pointed out earlier, there are no residential REITs available in Australia. 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 no.3), has a significant residential development role. Despite the lack of listed tax transparent residential investment vehicles such as REITs, there are some unlisted residential property funds in Australia. The major player is Peet (no.38 in Australian property funds management), with $863 million in residential property AUM, with 20 funds comprising only 23 properties. Other players include Abacus (no.21), Lend Lease (no.5), Questus (no.57), APGF (no.31) and Centric. (PIR, 2014) These fund managers often have just one residential property fund in their broader property fund portfolio.

Another important feature of these unlisted residential property funds is that these funds have a small number of properties in the funds; often only one property, with the fund often named after the specific property in the fund. The funds are structured in the form of direct property syndicates. 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 in Australia. Compared with REITs and unlisted wholesale property funds, these property syndicates have a low level of assets per fund. Specialist portfolios are often involved; for example the Centric portfolio consists of 83 Defence Housing Australia (DHA) properties on a sale-and-leaseback arrangement.

Similar to REITs, unlisted wholesale residential property funds are largely absent in Australia; 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–$10 million. In addition, the major property fund managers such as AMP and Dexus do not really invest in residential property. 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.

While there are no residential REITs in Australia, there are significant residential REIT markets in several major countries. US REITs have been established for over 50 years, with residential REITs being a significant property sub-sector in the world's largest REIT market. At June 2014, there were 16 residential REITs accounting for $95 billion (A$102 billion) in market capitalisation. US residential REITs have also significantly enhanced the supply of private rental properties; they own and manage over 2300 residential properties with over 644 000 apartment units (NAREIT 2014). Residential investment vehicles have also been successfully introduced in Canada, Japan, Singapore and France. There were 12 residential REITs in the abovementioned markets with a total market capitalisation of A$23.2 billion at June 2014. These 12 residential REITs have nearly 187 000 residential units.

While the listed property space via REITs has seen variable impacts for residential REITs across the various global REIT markets, the unlisted property space has seen considerable recent activity for unlisted residential funds, particularly in the US (via real estate private equity funds). Over 2010–14, 217 unlisted residential funds raised US$41 billion in capital (Preqin 2014). There has also been increased momentum in recent years; that is US$7 billion raised in 2012, US$12 billion in 2013 and US$11 billion to September 2014. Importantly, over 2013–2014, 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. A wide range of residential fund strategies with different risk levels have been used by these unlisted residential funds, including value-add, opportunistic, distressed and debt fund strategies. This is supplemented by another 97 unlisted residential funds still in the market (at September 2014) seeking over US$16 billion in capital; mainly being US-focused residential funds (US$10.2B; 63% market share), Asia-focused residential funds (US$3.9B; 24%) and Europe-focused residential funds (US$1.9B; 10%).

In the UK, 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 multi-billion dollar property portfolios. M&G (formerly PruPIM) are also a leading institutional investor in this residential investment space, as well as Aviva and Legal & General more recently. In fact, M&G are now (September 2014) raising capital for a significant unlisted residential fund, with a number of other leading investment managers (e.g. Pramerica, Aviva, Aberdeen) seeking to do the same (Goodchild 2014). Other players (e.g. LaSalle) have set up residential debt funds, which are making whole loans for residential developments in London. With UNITE being the leading player in the student accommodation area, this has seen significant unlisted student accommodation funds 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), with student accommodation typically not seen as a proxy for residential investment by institutional investors.

Recently, there has also been considerable overseas institutional investor interest in UK residential property by leading pension funds and sovereign wealth funds. 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), as well as Patrizia (from Germany) and EPF (Malaysian pension fund). In the student accommodation sector, Singapore's GIC (with UNITE) and the Dutch pension fund PGGM (with UPP) have been actively involved.

Overall, 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 highlighted. Additionally, indirect property ownership via indirect property funds (i.e. unlisted wholesale funds) is preferred by Australian institutional investors. Despite there being some residential property funds, these funds, mainly in a property syndicate form, neither successfully attract institutional investment nor enhance the supply of rented properties significantly. This also emphasises that a well-structured residential investment vehicle should be developed as a top priority and the desirable features for this vehicle should be clearly identified.

2.3 The desirable features of an effective residential investment vehicle

With most Australian institutional investors considering that a well-structured residential investment vehicle would encourage large-scale investment from institutional investors in the residential private rental market, the desirable features of an effective residential investment vehicle should be identified. The characteristics have been identified by Newell et al. (2015). Top priority is given to the investment vehicle needing to be managed by an experienced manager, followed by a diversified portfolio by location and a focus on delivering a stable income stream. This clearly reflects the 'people' dimension to property funds management and the key role of the fund manager, suitable risk management strategies (i.e. diversification by location) and the importance of income returns. Both property investment companies (PICs) and superannuation funds clearly saw the investment vehicle being managed by an experienced manager as the most critical desirable characteristic, with PICs seeing more importance for capital gain compared to the superannuation funds giving a higher priority to a stable income stream. The importance of diversification by location was also clearly seen as an important characteristic by both PICs and superannuation funds.

Much less importance was seen for the characteristics of being listed on the stock exchange (e.g. REIT), diversification by property types and investing in middle-end, top-end residential properties, including in social housing/affordable housing. This highlights that the need for liquidity by listing on the stock market (e.g. REITs) is much less important. This may explain the lesser stature of residential REITs in the Australian property market, despite the Australian REIT market being the second largest market in the world. This also further reflects the overall view of unlisted property investment vehicles as the most effective strategy for their residential property exposure.

Institutional investors also identified and prioritised the potential problems with investing in residential investment vehicles. The most significant problem was seen to be low returns (4.00/5), followed by poor market information (3.78), low-quality portfolios (3.78) and poor liquidity (3.78). These problems clearly relate to the property portfolio quality and property information issues, and were seen as much more important than the broader external and internal factors of regulatory restrictions (3.56) and resistance from the Board of Directors (2.87). They were also seen as the top four problems by both the PICs and the superannuation funds. Slightly more importance was given to these problems by the PICs. For example, PICs saw poor liquidity as a more important problem (3.78 versus 3.12 by superannuation funds), reflecting the liquidity issues associated with unlisted property funds and the more immediate involvement by PICs with this type of unlisted property investment vehicle.

2.4 The performance of residential property investment

Given Newell et al. (2015) identified that the low returns of residential property is a critical barrier for institutional investing in residential property, a review of the performance of residential property investment was conducted. Extensive studies have confirmed that residential property plays a significant role in a mixed-asset portfolio. Specifically, the inclusion of a residential portfolio would offer some diversification benefits (Goetzmann 1993; Hutchison 1994; Hoesli & Hamelink 1997; Jud & Winkler 2002; Montezuma & Gibb 2006). Lee (2008) have also demonstrated that Australian residential property offers slightly lower returns compared with Australian commercial property, while residential property outperforms commercial property on a risk-adjusted basis.

Nevertheless, Bruckner (1997) has also shown that the inclusion of housing in an investment portfolio will result in sub-optimal portfolios when the housing consumption factor is controlled. Distinctions are further made between low-end residential properties (social housing) and middle- and top-end residential properties. A performance analysis of Dutch social housing was also performed by Newell and Lee (2014). This performance analysis has highlighted the lesser performance of social housing in the Netherlands, compared to the other property sectors and shares and bonds. In particular, there was no social housing 'premium' evident versus residential property; in fact, a social housing 'discount' was evident. While the issues relating to social housing 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. In addition, Newell et al. (2015) have also demonstrated that socially responsible investment was seen as a less important factor in influencing institutional investors' decisions to invest in residential property. It has further highlighted the investment challenges for including social housing in a pension fund portfolio. Overall, mixed results have been evident regarding the role of residential property in a portfolio.

2.5 Summary

This chapter summarises the key findings of Newell et al.'s Positioning Paper (2015). . In particular, the results presented 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. Foremost among these challenges are the development of effective residential property investment vehicles that meet the investment requirements of superannuation funds and identifying enabling strategies that can be used to increase the level of residential property in institutional investor portfolios in Australia.

Several important 'take-outs' from Newell et al.'s Positioning Paper (2015) and this chapter are:

- The demand for the private rental sector has increased in recent years.
- There is a structural weakness in the Australian residential rental market, in which there is a typical lack of exposure to residential investment by Australian institutional investors.
- Despite the property funds management sector in Australia being currently over $285 billion in assets under management, residential property is a small component in the property funds management space.
- This is contrasted to the international experience in the US and UK with the increasing investor interest and increasing range of listed and unlisted residential investment vehicles available to pension funds and other institutional investors.
- Numerous key obstacles for institutional investing in residential properties have also been identified (i.e. management issues, a lack of sufficient scale, poor liquidity, political risk, market information, poor return, etc.).
- There are concerns by institutional investors 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 institutional investors in the residential investment area.
- An effective residential real estate investment vehicle is an important potential vehicle for attracting large-scale institutional investment into the private rental sector. Importantly, it may overcome some barriers for institutional investment in residential properties, such as sufficient scale, management issues, etc.
- Factors influencing a superannuation funds' decision to invest in residential property is largely related to performance analysis and how residential property contributes to the overall portfolio.
- The current lack of well-structured residential investment vehicles and low returns were seen as critical issues in residential property investment.
- More than 75 per cent of institutional investors considered that a well-structured residential investment vehicle would encourage institutional investment in the residential private rental sector.
- The most desirable features for an effective residential investment vehicle were being managed by an experienced manager, a diversified portfolio by location and delivering stable income returns with low debt.
- The main potential problems were related to low returns, poor market information and low quality portfolios.

Overall, a well-structured residential investment vehicle would be an innovative resource to encourage institutional investment in the private rental sector in Australia. To ensure the success of these vehicles, they should be managed by experienced managers and have a diversified portfolio by location. In addition, the vehicles should deliver stable income returns with low debt. The strategic positioning and enabling strategies of a residential investment vehicle is discussed in subsequent sections of the report.

3 STRATEGIC POSITIONING OF A RESIDENTIAL INVESTMENT VEHICLE

This section draws on the findings of the previous sections to emphasise that a well-structured residential investment vehicle is essential to attract large-scale institutional investing in Australia. Additionally, the desirable features of an effective residential investment vehicle have been identified. These allow us to strategically position an appropriate model for residential property for the Australian investment context.

In general, an equity investment vehicle instead of a debt vehicle is preferred by institutional investors, suggesting that the residential investment vehicle should be of an equity nature; thereby, we will limit the scope of strategic positioning to equity investment vehicles. As discussed in the Positioning Paper, there are various forms of equity investment vehicles. In general, equity investment trusts should be categorised into (1) listed or (2) unlisted property funds. The listed property space via REITs has seen some impacts for residential REITs internationally. The unlisted property space via unlisted wholesale funds and unlisted retail funds have also been used overseas. This section aims to determine the most appropriate model for a residential property investment vehicle in Australia.

3.1 An effective residential investment vehicle

Chapter 2 has clearly identified several important characteristics of an effective residential investment vehicle. These characteristics will be assessed critically and an effective strategy to achieve this product identified.

3.1.1 The residential investment vehicle is managed by an experienced fund manager

Australian institutional investors considered that a residential investment vehicle that is managed by an experienced fund manager is the most important desirable characteristic for an effective residential investment vehicle. Table 2 below exhibits the top 10 property fund managers in Australia. As at June 2014, these 10 property fund managers had total assets of over $188 billion, accounting for 71 per cent of the total assets under management in this sector. Additionally, the managers managed different types of funds, including Real Estate Investment Trusts (REIT), Unlisted Wholesale Funds (UWF), Unlisted Retail Funds (URF), Direct Private Funds (DPF), Direct Property Syndicates (DFS) and Property Securities Funds (Wholesale) (PSW).

Given the significance of Australian property funds management, this sees the presence of many established property funds with good track records in property fund management. For instance, Goodman Group, AMP Capital, Dexus Group, Lend Lease and Stockland have actively managed various leading listed and/or unlisted property funds in Australia. Despite most property fund managers being involved in commercial property investment (i.e. office, retail, industrial), some property fund managers such as PEET Limited and Questus have concentrated their activities on residential property funds management. In 2006, Lend Lease established Lend Lease Communities Fund No. 1 with a $100 million residential property portfolio. This clearly demonstrates the high level of professional property expertise in property fund management in Australia. It also reflects the availability of established Australian property fund managers with track records in managing commercial property and residential property funds. Importantly, it highlights the opportunities of Australian property funds to engage in the residential property sector.

Table 2: Top 10 Australian property fund managers, June 2014

Fund manager	2014 ranking	Total assets ($ billion)	% of total sector	Fund types
Westfield Group	1	37.942	14%	REIT
Goodman Group	2	27.726	10%	REIT, UWF, DPF
AMP Capital Investors Limited	3	23.880	9%	DPF, UWF, PSW, URF
Dexus Property Group	4	17.815	7%	DPF, UWF, REIT
Lend Lease Real Estate Investments Limited	5	15.400	6%	UWF, DPF
Stockland	6	14.573	6%	REIT, DPS
GPT Group	7	14.443	5%	REIT, UWF
Westfield Retail Trust	8	14.048	5%	REIT
CFS Retail Property Trust Group	9	11.402	4%	REIT, UWF, DPF
QIC Real Estate Funds	10	11.042	4%	UWF
Total		*188.271*	*71%*	

Source: Authors' compilation from PIR 2014

Notes: REIT is Real Estate Investment Trust, UWF represents Unlisted Wholesale Fund, URF is Unlisted Retail Fund, DPF is Direct Private Fund, DPS is Direct Property Syndicate and PSW is Property Securities Fund (Wholesale).

3.1.2 The residential investment vehicle contains a diversified portfolio by location

A diversified portfolio by location is another critical desirable feature. In other words, a residential investment vehicle should undertake extensive analysis to create a well-diversified portfolio by geography. This suggests that a relatively large portfolio is required and shows that an effective residential investment vehicle should have a reasonably large fund size to achieve this diversification. All of the property fund managers shown in Table 2 above have implemented a strategy of diversification by location as a key dimension of their property portfolio investment strategy. This also highlights the importance of large-scale investment in residential property in order to meet the appetite of institutional investors. Some empirical studies have shown an investor could enhance the diversification of a portfolio though regional diversification (Newell & Tan 2003). In addition, major cities such as Sydney and Melbourne should consist of a reasonable large portfolio weighting. Interestingly, investors do not consider a diversified portfolio by residential property types (single-family houses, apartment units or townhouse units) is critical. This is also consistent with the finding of Newell and Tan (2003).

3.1.3 It should deliver stable income returns

To deliver a stable income return stream, a prudential investment strategy should be employed. Often this has been achieved by acquiring stabilised yield-producing properties. As such, high-quality residential properties with low vacancy risk are required in the portfolio.

To minimise the vacancy risk, long-term leases are expected. Another cornerstone aspect is securing creditworthy tenants, posing minimal risk to monthly rent payments. As such, there is minimal risk to quarterly income distributions of the fund. To achieve this, top quality properties with stabilised yields should be considered. This also highlights the challenges for including social housing and/or affordable housing to deliver these required yields. As of Quarter 4, 2014, the average annual yield of Australian residential property was 3.3 per cent (REIA 2015b).

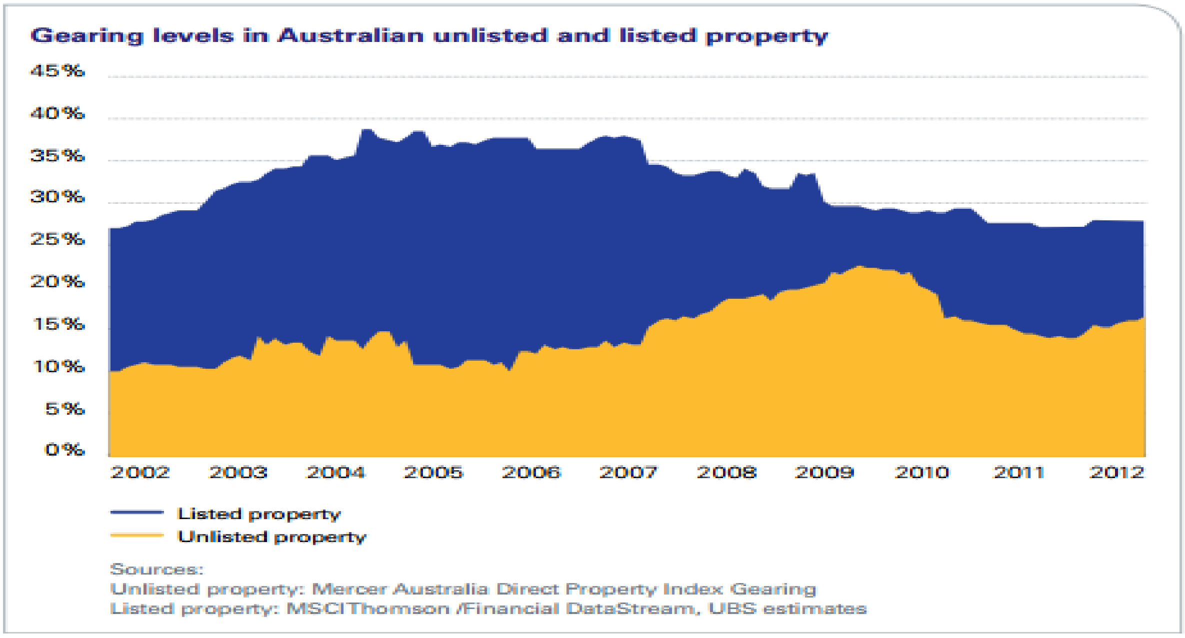
3.1.4 Low debt level

In general, an investment vehicle with high debt levels is not seen as a desirable vehicle by institutional investors, reflecting that the residential investment vehicle should be of an equity nature. Besides, an investment in the residential investment vehicle would need to replicate as closely as possible the characteristics of an investment in residential property. Therefore, an equity residential investment vehicle with low debt is an ideal structure; particularly as superannuation funds are conservative and prefer low debt levels in their selected funds. Given there are two main structures for an equity investment structure, namely listed and unlisted, the gearing levels of both structures have been critically assessed. Listed property funds, mainly REITs, have high debt levels, coupled with layers of gearing (e.g. junior debt). In the tight credit environment of the Global Financial Crisis (GFC), many A-REITs had to restructure their investments, reduce debt and access funding through asset sales and recapitalisation (Newell & Peng 2009). As a result of the GFC, many A-REITs were unable to access credit for ongoing financing; thereby many REITs went through a period of being ‘distressed’ sellers. Many properties, particularly international properties, were sold as distressed properties (Newell & Peng 2009; AustralianSuper 2013).

On the other hand, the gearing level of unlisted property funds is very different to the debt levels in the listed property funds (e.g. REITs). Unlisted property funds, unlike REITs, are generally not highly geared; allowing the funds to have available cash flow in meeting ongoing capital and distribution requirements (AustralianSuper 2013). This is further highlighted in Figure 2 below.

Despite Australian unlisted property funds having a lower gearing level compared with listed property funds (i.e. REITs), a clear difference between unlisted wholesale funds and unlisted retail funds is also evident. Table 3 below compares the gearing levels of unlisted wholesale and unlisted retail funds. As of February 2015, the average gearing level of unlisted wholesale property funds (12.4%) is considerably lower than unlisted retail funds (45.2%). Examples of unlisted wholesale funds and unlisted retail property funds with their debt levels in Table 4 below provide a clearer picture regarding the debt usage of unlisted wholesale property funds and unlisted retail property funds. A clear difference between both types of fund is evident; both in gearing and other features such as the quality of their property portfolios.

Figure 2: Gearing levels in Australian unlisted and listed property funds



Source: AustralianSuper 2013

Table 3: Gearing levels of unlisted property funds, June 2014

Type of funds	Unlisted wholesale funds	Unlisted retail funds
All funds	12.4%	45.2%
Office funds	17.3%	44.2%
Retail funds	16.9%	53.0%
Industrial funds	7.8%	46.4%
Diversified funds	7.7%	48.1%

Sources: Authors' compilation from IPD 2015

Table 4: Examples of unlisted wholesale funds and unlisted retail funds

Type of funds	Total assets	Total debt	Gearing
Panel A: Unlisted wholesale funds			
AMP Capital Shopping Centre Fund	$2.5B	$330M	15%
AMP Wholesale Office Fund	$3.0B	$539M	18%
ISPT Core Fund	$7.6B	$795M	10%
GPT Wholesale Office Fund	$4.1B	$487M	12%
Panel B: Unlisted retail funds			
Australian Retail Property Fund	$330M	$166M	50%
360 Capital Industrial Fund	$343M	$153M	45%
Arena Office Fund	$341M	$168M	49%
Abacas Diversified Income Fund 2	$180M	$176M	98%

Source: PIR 2014

In short, unlisted property funds have a lower level of gearing compared with listed property funds. In addition, a clear difference between unlisted wholesale and unlisted retail funds in terms of their gearing level is also evident. Unlisted wholesale funds, in general, have a much lower gearing level compared with unlisted retail funds and listed property funds. Therefore, unlisted wholesale property funds rather than unlisted retail property funds or listed property funds, would be a more appropriate structure for superannuation funds, despite all funds being equity funds.

3.1.5 Liquidity by listing on a stock exchange is not a critical success factor

The liquidity of a fund can be significantly enhanced by listing on a stock exchange. As such, a listed fund would offer a high level of liquidity for investors. However, the survey of Newell et al. (2015) suggests that high liquidity by listing on a stock exchange is not a critically important factor for institutional investors; particularly small superannuation funds being long-term property investors with clear investment strategies and benchmarks. Again, this sees unlisted property funds as an appropriate structure. Unlike REITs, unlisted property funds are not listed on a stock exchange; thereby unlisted property funds have limited liquidity. Despite these funds offering limited liquidity, investors may still be able to redeem their units on a quarterly basis if sufficient demand is evident from other investors. Therefore, the liquidity of unlisted property funds is not totally compromised, even if the funds are not listed on a stock exchange. This further reinforces our earlier argument that unlisted residential property funds instead of REITs would be a more appropriate model.

3.1.6 Large scale of investment

Institutional investors prefer a large scale of investment, reflecting that unlisted retail funds may not be a suitable structure for institutional investors. This is further confirmed by the lesser stature of unlisted residential retail property funds as discussed by Newell et al. (2015). To encourage institutional investing in residential property, the large scale of investment through the establishment of an unlisted wholesale property fund is a viable option. While unlisted wholesale property funds have limited liquidity and high minimum investment levels (normally $5 million), they are very popular with superannuation funds in achieving high quality property portfolio exposure with major unlisted wholesale property fund managers. This sees the opportunity of launching an unlisted wholesale residential fund to encourage capital flows from institutional investors such as superannuation funds as an alternative option.

On the other hand, unlisted retail property funds have a small number of properties, with minimum entry levels typically being $10 000. In addition, the average fund size of the unlisted retail property funds is considerably smaller compared with unlisted wholesale funds. These features are significantly below the expected minimum entry levels required by institutional investors such as superannuation funds. Consequently, targeted investors of unlisted retail property funds are the smaller retail or 'mums and dads' investors, not large superannuation funds.

Similar to unlisted retail funds, REITs have low minimum investment levels. Being listed on a stock exchange, REITs allow investors to gain exposure in the property sector with minimum capital outlays (few hundred dollars; depending on the share price). Obviously, this is not a desirable strategy for attracting a large scale of institutional investment and less popular with superannuation funds in achieving high quality property portfolio exposure. Overall, unlisted wholesale property funds appear to be a more viable investment vehicle strategy to encourage institutional investment in residential property.

3.1.7 Low level of volatility is required

To achieve a low level of volatility, REITs are clearly not seen as a desirable vehicle. REITs are listed on a stock exchange; thereby listed assets are valued daily by the stock market. Importantly, the price of listed property can be influenced by market sentiment of investors and market shocks. Hence, REITs are strongly correlated with stocks (Glascock et al. 2000) and a high level of volatility of REITs is expected. This adds another layer of difficulty in pricing REITs, particularly during a crisis period. In particular, the prices of REITs had been significantly affected by the GFC with a rapid increase of the volatility level of REITs also evident during the GFC (Lee & Lee 2012). Table 5 below shows the A-REIT risk levels (at February 2015) for the various A-REIT sub-sectors and for individual A-REITs in the ASX 200 (UBS 2015). These A-REIT risk levels are significantly higher than in the pre-GFC period and are still higher than shares. Similarly, the correlation between the performance of A-REITs and stocks is currently 0.63 (IPD 2014); reflecting strong linkages between A-REIT and stock market performance.

Table 5: A-REIT volatility levels*, February 2015

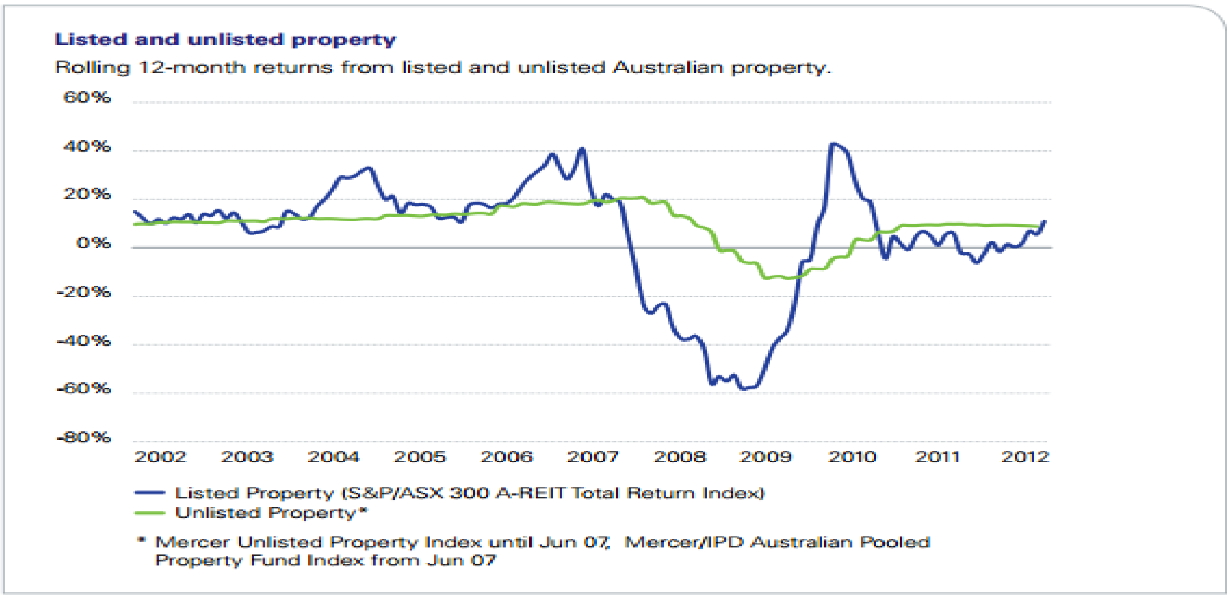
A-REITs	**Annual volatility**
Diversified A-REITs	*25.9%*
Stockland	24.2%
GPT	35.5%
Mirvac	36.0%
Charter Hall	44.2%
Abacus	32.4%
*Retail A-REITs***	*17.4%*
Novion	15.8%
Federation Centres	13.5%
Charter Hall Retail	54.8%
BWP	17.3%
Office A-REITs	*23.3%*
Dexus Property	24.3%
Investa Office	33.5%
Industrial A-REITs	*19.5%*
Goodman	14.2%

Source: UBS 2015

Note: * Volatility (annual) calculated using 36-month of monthly returns; ** Scentre and Westfield are not included due to restructure of Westfield A-REITs in 2014, resulting in less than 36 months of returns.

The values of unlisted property funds, on the other hand, are based on their tangible asset value and are less sensitive to stock market movements and market sentiment of investors, indicating that the values of unlisted property funds are generally unlikely to fall by a significant extent to that reflected by price falls in the listed sector. A recent report also confirms that the low level of volatility of Australian unlisted real estate funds over 2010–13, in which the annual risk of unlisted Australian property funds was only 1.24 per cent (Newell 2014). The low level of volatility of unlisted property funds is further demonstrated in Figure 3 below, in which there is a high level of variability in the returns from listed property assets, while unlisted property tends to be far more stable, suggesting that the listed property sector is much more volatile than the unlisted Australian property funds sector.

Figure 3: Rolling 12-month returns from listed and unlisted Australian property funds



Source: AustralianSuper 2013

3.1.8 Reputable property managers

The survey results of Newell et al. (2015) have clearly demonstrated the importance of experienced property managers in managing the housing portfolio. Importantly, many superannuation funds have an aversion to taking direct management responsibility. In particular, for residential property, which requires interaction with significant numbers of clients and the management of many small rent contracts, this is likely to be a significant management burden. This sees the need of professional property management services.

In Australia, IBISWorld (2015) estimated that the total revenue of property management was approximately $3.3 billion over 2014–15. Many established property managers are also available in Australia, including LJ Hooker, Ray White, CBRE, LPI and First National Real Estate. It is also estimated that these top five operators account for 20 per cent of the industry revenue. These operators offer a range of services, including management of leases, property inspections, rent reviews and tenant relocations (IBISWorld 2015). This clearly highlights the availability of high level professional expertise in property management with strong track records. Therefore, the use of residential property funds with the support from experienced property managers would significantly address this issue. In other words, the funds regardless whether it is a listed or unlisted fund should use professional property management in managing their residential properties.

3.2 Other strategic issues

Several critical strategic issues have also been identified in Chapter 2. To provide a fuller understanding of residential investment vehicles, these critical strategic issues have also been assessed in determining the most effective residential investment model.

3.2.1 The availability of large rental portfolios

As discussed by Jones (2007), the characteristics of private rental accommodation supply is one of the key factors in determining the success of a residential investment vehicle. More specifically, he argued that the existence of large private landlords and the availability of large rented portfolios are key factors in attracting large-scale investment in rental properties. He also attributed the success of US residential REITs to the availability of large rented portfolios, in which the ownership patterns of large apartment blocks are owned by large landlords in the

US. Therefore, CHPs in Australia could play a vital role in the establishment of an effective residential trust.

Unlike housing developers, many CHPs have reasonably large affordable housing portfolios. In addition, these CHPs have track records of managing residential properties. Therefore, the conversion of large Australian CHPs to a residential fund would be the most likely route for long-term growth of the private rental sector. Most importantly, large Australian CHPs have reasonably large housing portfolios in order to achieve the desirable required scale by institutional investors. Nevertheless, the housing portfolios of some CHPs may not be able to meet the expectation of institutional investors. Specifically, these CHPs may largely own social housing or affordable housing. As discussed earlier, institutional investors prefer high quality yield-producing residential property. In other words, these properties may not meet the appetite of institutional investors, although the growth of corporate social responsibility and socially responsible property investing may play a role in affecting this issue.

3.2.2 Returns from low-end residential properties (e.g. social housing) may not match the expected returns of investors

As discussed earlier, good quality assets are important to deliver stable rental income streams. Nevertheless, returns from low-end residential properties (e.g. social housing) may not match the required returns/yields of institutional investors (Newell & Lee 2014). This sees the challenge of including low-end residential properties in the portfolio. It also highlights the importance of a government role. More specifically, support from the government is paramount (Milligan et al. 2013). The government may need to provide some tax incentives such as a stamp duty waiver for the transfer of social housing into an unlisted wholesale property fund. In addition, on-going tax relief for these unlisted social residential property funds is also required. Therefore, tax transparency should be given to assist the social housing portfolios to achieve the expected returns of institutional investors. Nonetheless, forming a large-scale social housing portfolio with a size that meets the appetite of institutional investors could be a big challenge.

3.3 Summary

The desirable characteristics of an effective residential investment vehicle have been comprehensively investigated in this section. To identify the most appropriate model, the key features of REITs, unlisted wholesale funds and unlisted retail funds are compared. The key features are summarised and outlined in Table 6 below.

A closer examination of the characteristics of the various types of investment vehicles (both listed and unlisted) has suggested that unlisted wholesale residential property funds would be the most effective strategy to encourage large-scale investment in the residential sector. Unlike REITs, unlisted wholesale property funds tend to be much less volatile and far more stable in the investment returns, with low debt levels. While not as liquid as REITs, unlisted wholesale funds offer some degree of liquidity to institutional investors. Importantly, institutional investors do not see the high level of liquidity via listing on a stock exchange as a paramount factor; reflecting their longer-term investment mandates. Given unlisted property funds are not listed on a stock exchange, unlisted property funds are less sensitive to market sentiment of investors; thereby volatility can be reduced.

Table 6: Key desirable features of REITs, UWFs and URFs

Key features	REITs	UWFs	URFs
Experienced fund managers	✓	✓	✓
A diversified portfolio by location	✓	✓	✗
Large scale of investment	✓	✓	✗
Stable income	✓	✓	✓
Low debt level	✗	✓	✗
Liquidity	✓	✓ **(limited)**	✓ **(limited)**
Low level of volatility	✗	✓	✓
Experienced property managers	✓	✓	✓
Market sentiment of investors	✓	✗	✗

Source: Authors' compilation

In addition, unlike unlisted retail property funds, a significant minimum investment is required (often more than $5 million) for unlisted wholesale property funds investment. This feature is very consistent with the appetite of institutional investors and allows unlisted wholesale funds to achieve a well-diversified portfolio by location. Overall *unlisted wholesale residential property funds* would be the most effective strategy to encourage institutional investing in residential property. Further details of this unlisted wholesale residential property fund structure and an equivalent unlisted wholesale affordable housing fund structure are given in subsequent sections of this report.

4 THE SIGNIFICANCE OF UNLISTED WHOLESALE PROPERTY FUNDS

This chapter discusses the possibility of establishing an unlisted wholesale residential property fund. To provide a fuller understanding, a dedicated review of Australian unlisted wholesale property funds is firstly provided. Several strategic issues for the development of these funds are also discussed.

4.1 Unlisted wholesale property funds

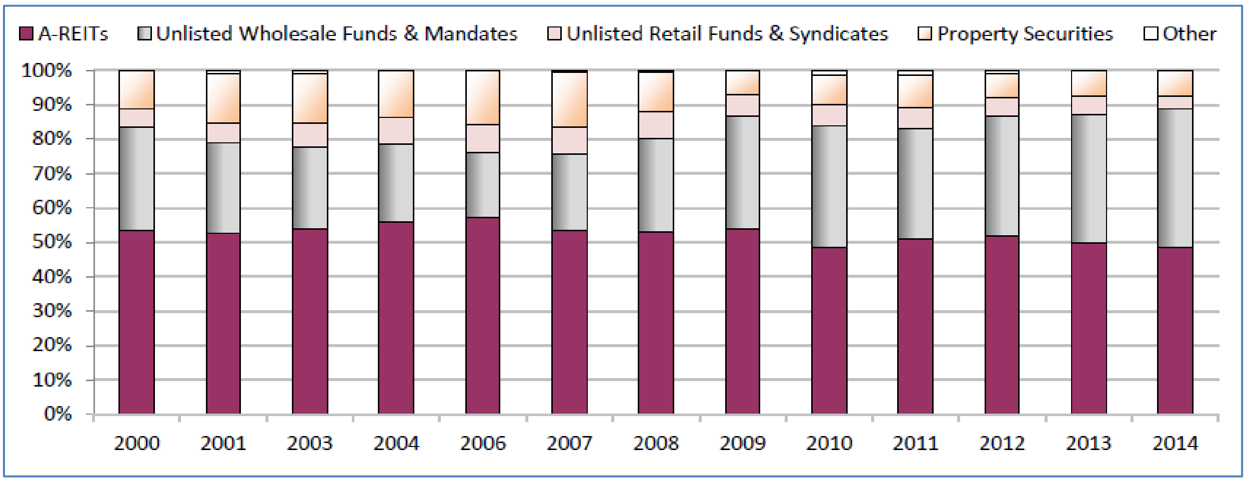
Unlisted wholesale property funds (UWFs) are property investment vehicles that are not listed on the stock exchange. They can include property in various sectors such as retail, office, industrial and residential. Unlisted wholesale property funds typically have a significant level of total assets, low gearing and have a small number of investors, as the funds are generally for institutional investors called 'wholesale' investors only; this is typically superannuation funds. As a result, a significant minimum investment is required (often more than $5 million).

The unit values of these UWFs are based on the valuation of the properties in the portfolio; hence the unit value does not change until properties are revalued. The major property fund managers (e.g. AMP, Lend Lease, GPT, Goodman, Dexus etc.) have these UWFs in their portfolio of property investment vehicles; often having a number of these UWFs to offer exposure to the core property sectors (e.g. office, retail, industrial; see Table 7 below). They are offered as open-ended funds (i.e. no fixed life) or closed-end funds (i.e. fixed life; typically 5–10 years). Capital raisings for these UWFs are extensive. Often taking more than 18 months; this is dependent on investor demand, the fund managers' reputation and the quality of the property portfolios. To ensure alignment of interest, co-investment by the fund manager is also required; this is typically at least a 10 per cent co-investment, having increased since the GFC. The quality of the assets in the portfolios is high-grade; comparable to that seen in an A-REIT portfolio. Fees include an entry fee and an annual management fee. There is no secondary trading market for UWFs; hence, there is limited liquidity for redeeming units; often there is no liquidity and units need to be held for the life of the UWFs.

In 2014, unlisted wholesale property funds were the second largest property fund management sector in Australia, and were particularly supported by large institutional investors such as superannuation funds seeking high quality property exposure (Newell et al. 2015). With over $1.9 trillion now in superannuation in Australia, being the fourth largest superannuation market in the world, these unlisted wholesale property funds provide major opportunities for superannuation funds to invest in high quality property portfolios (APRA 2014).

Figure 4 below shows the significant contribution of unlisted wholesale property funds to property assets under management (AUM) in recent years. In 2014, unlisted wholesale property funds reached a record 40 per cent of property assets under management for the first time; accounting for over $96 billion in assets under management. This further reinforces the significant contribution of this sector to the Australian property fund management industry and highlights the increasing popularity of Australian wholesale property funds in recent years; driven by the increasing level of superannuation funds needing to be effectively invested in a range of assets, including property. This has seen the contribution of unlisted wholesale funds and mandates increase from 30 per cent to 40 per cent of total property AUM over 2000–14 (PIR 2014).

Figure 4: Australian property investment vehicles, 2000–14, AUM by sector



Source: PIR 2014

Table 7 below presents the profile of major unlisted wholesale property funds in Australia. Typically, these property funds contain top quality property assets with a small number of investors. These are typically the superannuation funds making significant commitments to these wholesale property funds. Normally, unlisted wholesale property funds require at least $5 million as the minimum investment requirement. While unlisted wholesale property funds have limited liquidity and high minimum investment levels, they are very popular with superannuation funds in achieving high quality property portfolio exposure with major unlisted wholesale property fund managers. Additionally, unlisted wholesale property funds have a significant level of total assets with low gearing levels (see Table 7). Again, all of these features would suit the appetite of institutional investors for a residential property fund 'model' as discussed in Chapters 2 and 3.

Another important observation is that some major REIT fund managers (e.g. GPT, Goodman and Dexus) have also set up separate unlisted wholesale funds to expand their funds management offerings and attract capital flows from superannuation funds. In addition, some property fund managers such as ISPT and Eureka have concentrated their activities on unlisted wholesale property funds for superannuation fund investors.

Table 7: Major unlisted wholesale property funds

Wholesale property fund	Total assets	Number of properties	Number of investors	Gearing level
AMP:				
AMP Capital Shopping Centre Fund	$2.5B	10	27	15%
AMP Wholesale Office Fund	$3.0B	14	29	18%
Lend Lease:				
APPF—Commercial	$1.9B	14	25	NA
APPF—Retail	$4.4B	12	58	NA
ISPT:				
ISPT Core Fund	$7.6B	77	32	10%
GPT:				
GPT Wholesale Office Fund	$4.1B	15	44	12%
GPT Wholesale Shopping Centre Fund	$3.0B	9	27	11%
Goodman:				
Goodman Australia Industrial Fund	$5.6B	115	NA	60%
Charter Hall:				
Charter Hall Office Trust	$2.3B	18	NA	NA
QIC:				
QIC Property Fund	$7.2B	17	19	94%
QIC Shopping Centre Fund	$3.7B	11	16	75%
Dexus:				
Dexus Wholesale Property Fund	$4.6B	31	44	85%
Eureka:				
Eureka Core Fund No. 2	$2.7B	4	1	89%

Source: Authors' compilation from PIR 2014

Table 8 below further outlines the role of wholesale property funds in attracting superannuation fund investors. UniSuper, one of the largest superannuation funds ($36 billion), fully uses a range of wholesale property funds to obtain direct property exposure in their property portfolio. Another example is HostPlus ($13 billion), in which it gains direct property exposure via various unlisted wholesale property funds (namely AMP Select Property Portfolios, ISPT Core Fund, ISPT Development and Opportunities Fund 1 and II, ISPT Retail Australia Property, Lend Lease Communities Funds, Lend Lease Asian Retail Investment Fund, Lend Lease Australian Prime Property Fund and Stockland Real Estate Equity Fund 1) (HostPlus 2014). This clearly reflects the significance of unlisted wholesale property funds in attracting large-scale institutional investment in property.

Table 8: Unlisted wholesale property funds used by UniSuper, June 2014

AMP Select Property 2
AMP Unlisted Property
AMP Wholesale Office Fund
APPF Retail
Goodman Australian Industrial Fund
GPT Wholesale Office Fund
GPT Wholesale Shopping Centre Fund
ISPT 50 Lonsdale Street Trust
ISPT Core Fund

Source: Authors' compilation from PIR (2014) and UniSuper Annual Report 2013/2014

In short, unlisted wholesale funds are the common route for superannuation funds to achieve their direct property exposure. Overall, to attract large-scale investment in residential property, unlisted wholesale funds appear to be the most appropriate model.

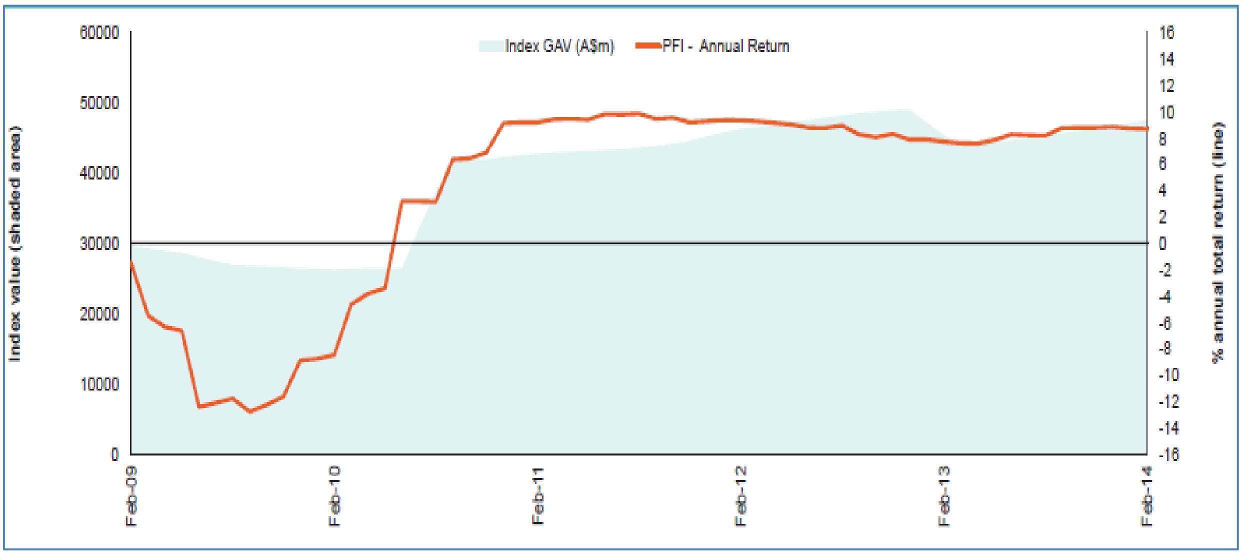
4.2 The performance of unlisted wholesale property funds

For more insights into the significance of unlisted wholesale property funds in Australia, the performance of unlisted wholesale property funds is also assessed. Figure 5 below depicts the historical performance of Australian unlisted wholesale funds over 2009–14.

Figure 5 shows that the GFC has had a significant negative impact on the performance of Australian unlisted wholesale property funds, with negative returns being recorded during the crisis period. Price falls in the unlisted property funds sector were evident during the crisis period due to the devaluation of underlying properties in 2009. Nevertheless, the recorded loss of 12 per cent per annum in 2009 was not significant compared with their listed counterparts, REITs, which saw over 50 per cent of the A-REIT market capitalisation value lost in the GFC.

In addition, solid earnings and improving valuations have seen stronger returns from Australian unlisted wholesale property funds. Unlisted wholesale property funds have proven to be solid long-term investments after the GFC, in light of the relatively solid and stable returns (8%–10%) that has been demonstrated over 2011–14. The stable annual returns during the post-crisis period also signify the low risk level of Australian unlisted wholesale property funds during this period. The results are broadly similar to the finding of an earlier study of Lee (2008). In addition, the solid returns of the unlisted wholesale property fund are largely contributed by its income component (i.e. 95%) (IPD 2015).

Figure 5: The performance of Australian unlisted wholesale funds, 2009–14



Source: IPD 2015

Table 9 below presents the performance of unlisted wholesale property funds by property type. Some variations have been found by comparing the performance of different types of unlisted wholesale property fund over March 2014–February 2015. Industrial funds (12.9%) appear as the best performing funds compared with retail funds (8.1%; the worst performing). Nonetheless, over a longer study period (five years), unlisted wholesale property funds provide a comparable return regardless of the type of fund. In general, unlisted wholesale property funds delivered an annualised return of 8.8 per cent per annum over the five-year study period from March 2010 to February 2015. No significant variation was observed among the different types of fund (i.e. office, retail, industrial and diversified). Despite unlisted wholesale property funds underperforming their counterparts such as REITs and stocks, the risk levels of unlisted wholesale property funds are much lower, as demonstrated in Figures 3 and 5 above. In comparison, the risk level for A-REITs and stocks are currently 19.5 per cent and 14.3 per cent, with A-REIT risk currently being 37 per cent higher than the risk for shares (UBS 2015). This confirms the risk-adjusted performance of unlisted property funds over A-REITs and stocks.

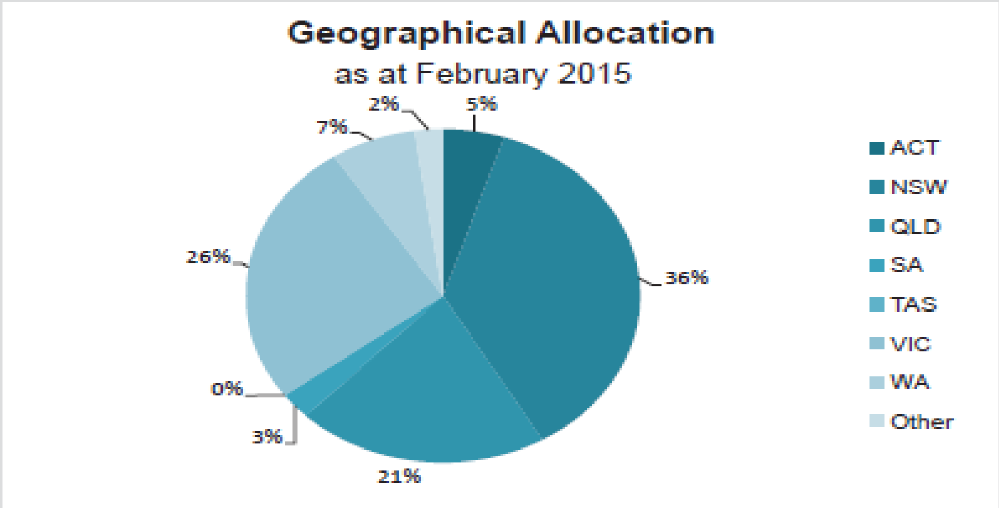
Table 9: The performance of unlisted wholesale property funds, February 2015

Funds	1 Year	3 Years	5 Years
Unlisted wholesale funds			
All funds	9.2%	8.6%	8.8%
Office funds	10.6%	9.1%	8.9%
Retail funds	8.1%	7.9%	8.6%
Industrial funds	12.9%	10.3%	8.9%
Diversified funds	9.1%	8.5%	9.1%
REITs	38.1%	24.5%	14.9%
Stocks	14.8%	17.1%	9.7%

Source: Authors' compilation from IPD 2015

Figure 6 below presents the geographic diversification of property portfolio assets for unlisted wholesale property funds. Confined to Australian's demographics, geographic diversification is present, with assets located in a number of Australian major cities/states, including NSW, Victoria and Queensland. This high level of geographic diversification is also required by institutional investors; and would clearly be required for an unlisted wholesale residential property fund.

Figure 6: Unlisted wholesale property funds by geographical allocation



Source: IPD 2015

4.3 Overseas unlisted residential property funds

Despite the lack of presence of unlisted wholesale residential property funds in Australia, a number of overseas unlisted property fund managers provide major opportunities for institutional investors to invest in residential property indirectly. The profiles of leading unlisted residential property fund managers are presented in Table 10 below; mainly focused on the UK/European players.

Table 10: Leading international unlisted residential property fund manager profiles in Euro(€)*

Unlisted property fund managers (and global rank)	Total fund size	Residential investment	Percentage of residential exposure
Vestade (no.93)	€3.624B	€3.624B	100%
Amvest (NA)	€2.750B	€2.750B	100%
Syntrus Achmea (no.56)	€7.450B	€4.100B	55%
Patrizia (no.42)	€13.180B	€6.570B	50%
Bouwinvest (no.73)	€5.858B	€2.875B	49%
Altera (NA)	€1.785B	€619M	35%
UBS (no.6)	€40.704B	€12.643B	31%
Bouwfunds (no.77)	€5.966B	€1.533B	26%
Credit Suisse (no.12)	€34.561B	€8.054B	23%
PGGM (no.35)	€8.100B	€1.900B	23%
ASR (no.91)	€3.656B	€700M	19%
Patron (no.52)	€9.531B	€1.740B	18%
APG (no.17)	€12.146B	€2.110B	17%
BNP Paribas (no.31)	€18.000B	€2.880B	16%
CBRE Global Investors (no.2)	€40.3B	€5.250B	13%
Amundi (no.57)	€8.356B	€1.003B	12%
LaSalle (no.10)	€27.920B	€2.880B	10%
AXA (no.5)	€52.983B	€5.008M	9%
Deutsche A.M. (no.14)	€28.309B	€2.395B	8%
Aberdeen (no.20)	€21.473B	€1.997B	8%
Sorgente (no.85)	€4.400B	€297M	7%
AEW Europe (no.30)	€18.100B	€1.100B	6%
Hermes (no.63)	€7.493B	€437M	6%
KGAL (no.59)	€7.941B	€431M	5%
M&G (no.16)	€20.576B	€707M	3%
Union Investment (no.26)	€22.568B	€174M	1%

Source: I&P RE 2014

Note: * fund managers ranked by percentage of residential exposure.

Table 10 clearly shows the range of unlisted wholesale property fund managers who invest significantly in residential property (e.g. Vestade, 100%; Amvest, 100%; Patrizia, 50%; UBS, 31%). This includes property fund managers throughout the full spectrum of AUM profiles. The table does not include global/US key players; with significant residential exposure (e.g. Pramerica REI, 20%; JP Morgan, 21%; TIAA Henderson, 14%; Invesco; 23%). The profiles of the key US players are presented in Table 11 below.

Table 11: Leading international unlisted residential property fund manager profiles, US/global in Euro(€)*

Unlisted Property fund managers (and global rank)	Total fund size	Residential investment	Percentage of residential exposure
Colony (no.37)	€9.6B	€3.2B	33%
Invesco (no.8)	€25.3B	€5.9B	23%
Heitman (no.27)	€20.0B	€4.6B	23%
JP Morgan (no.9)	€28.7B	€6.1B	21%
Pramerica REI (no.7)	€43.8B	€8.6B	20%
Starwood (no.23)	€17.8B	€3.2B	18%
Clarion (no.24)	€23.8B	€3.7B	16%
TIAA Henderson (no.4)	€42.3B	€6.0B	14%

Source: I&P RE 2014

Note: * fund managers ranked by percentage of residential exposure

The residential profiles of these unlisted wholesale property funds are further investigated in Table 12 below which shows the results of the examination of 118 unlisted global property fund managers using I&P RE (2014). Of these, 23 did not specify portfolios, so there are only 95 unlisted property funds assessed. As shown in Panel A of Table 12 below, 25 of the 95 unlisted property fund managers (26%) had no residential exposure in their funds. In comparison with other property sectors without a sector allocation, only 6 of the 95 unlisted property fund managers (6%) did not allocate their funds in the office sector, whereas 9 per cent and 17 per cent of unlisted property fund managers had no retail and industrial exposure respectively in their funds. This sees players without residential exposure as the largest omission and residential property is the least popular sector compared with the other property sectors.

Panel B of Table 12 further shows the residential property portfolios of these 95 unlisted property fund managers. Of these, 60 of the 95 unlisted property fund managers (63%) have less than €1 billion in residential in their funds, while only 9 of 95 unlisted property funds (10%) have €5 billion or more in residential property. For these 95 property fund managers, the median level of residential was €0.3 billion, while their median level of property was €9.9 billion, indicating that residential only accounts for 3 per cent of their total portfolio investment. This confirms that residential property plays a lesser role in their total property portfolio investment.

Table 12: Residential profiles and unlisted property funds in Euro(€)

Panel A: Unlisted property funds without sector allocation		
Sector	**Number of funds**	**%**
Office	6	6%
Retail	9	9%
Industrial	16	17%
Residential	25	26%
Panel B: Residential portfolios of 95 unlisted property funds		
Residential portfolio size	**Number of funds**	**%**
€0	25	26.3%
€200M or less	16	16.8%
€200M–€1.0B	19	20.0%
€1.01B–€2.0B	8	8.4%
€2.01B–€5.0B	18	18.9%
More than €5B	9	9.5%

Source: Authors' compilation from I&P RE 2014

4.4 Summary

Unlisted wholesale property funds provide major opportunities for superannuation funds to invest in high quality property portfolios, with a strong focus on total returns. Given the growth of Australian superannuation funds, the total assets under management by unlisted wholesale property funds have increased significantly in recent years, due to the fact that Australian superannuation funds frequently use unlisted wholesale property funds to gain their direct property exposure. The key features of unlisted wholesale property funds such as the high minimum investment requirement, significant level of total assets and low gearing levels have met the appetite of institutional investors, confirming that unlisted wholesale residential property funds are the most suitable model for attracting large-scale investment in residential property in Australia. The proposed structure for this unlisted wholesale residential property fund and equivalent unlisted wholesale affordable housing fund is discussed in detail in the next section of this report.

5 PERFORMANCE OF RESIDENTIAL PROPERTY IN INVESTOR PORTFOLIOS

The Positioning Paper identified that the low returns of residential property is one of the critical barriers to institutional investment in residential property. This chapter assesses the performance of residential property in investor portfolios. Three main performance indicators (long-term returns and risks, as well as diversification potential) for institutional investors are investigated. Importantly, a fuller understanding of the performance of residential property allows us to construct an efficient residential property portfolio for the proposed unlisted wholesale residential property fund.

Most of the analysis is based on the Real Estate Institute of Australia (REIA) data (i.e. housing data) and data from the Australian Securities Exchange (ASX) (i.e. stocks, A-REITs) and the Reserve Bank of Australia (RBA) (i.e. bonds and treasury bills) and the Investment Property Databank (IPD) Australia (i.e. direct commercial property[2]). The stocks, A-REITs, bonds and treasury bills data are downloaded from DataStream.

5.1 Long-term returns and risks

Table 13 below presents the asset performance analysis for residential property and core assets, with average annual returns presented on a one, three, five and 10-year basis. Over these various timeframes, residential property (Australian average) was consistently among the better performing assets compared with bonds and cash.

Table 14 below provides the risk-adjusted performance analysis for the various assets in Australia over 1986:Q3–2014:Q4. The average total return on residential investment varies between 11.17 per cent for Adelaide and 13.14 per cent for Perth in the past 29 years. The average total return of Australian housing was 12.06 per cent over 1986–2014. The long-term housing returns were also higher than major asset classes such as stocks (10.38%), A-REITs (9.52%) and bonds (7.27%).

As well as delivering strong total returns, residential property also has a risk profile significantly less than the risk level of the stock market. Over 1986–2014, the Australian housing risk level of 6.76 per cent was only 42 per cent of the stock market risk level of 16.11 per cent, reflecting the defensive nature of housing investment. Another feature worth noting is that the risk levels of the Melbourne (12.25%) and Sydney (9.08%) housing markets, the largest two Australian residential markets, are significantly higher than the risk level of the aggregate Australian housing market. This highlights the potential diversification potential by geographic and the importance of portfolio management in residential property investment.

[2] De-smoothed direct commercial property returns are employed. The IPD/Property Council of Australia direct property index is a valuation-based index and values are not derived from market transactions. It is commonly known as a smoothing bias in the property literature (Geltner 1993; Newell & MacFarlane 1995, 1996). De-smoothing the property returns has become the standard procedure to obtain more appropriate property risk estimates. Following Lee (2009) and Newell and Lee (2011), direct commercial property returns are de-smoothed by the Geltner (1993) de-smoothing procedure with a smoothing parameter of 0.2.

Table 13: Asset class performance analysis, 2014:Q4

Assets	1Y	3Y	5Y	10Y
Australia (average 8 cities)	5.21%	6.76%	4.36%	4.90%
Sydney	9.90%	6.48%	6.04%	4.25%
Melbourne	3.12%	3.64%	4.15%	5.15%
Brisbane	4.09%	2.96%	2.71%	4.57%
Adelaide	4.02%	2.49%	3.00%	4.61%
Perth	0.92%	3.55%	3.32%	5.97%
Hobart	0.66%	1.45%	1.97%	4.05%
Darwin	0.14%	3.22%	3.46%	7.42%
Canberra	7.64%	2.28%	3.35%	4.57%
Stocks	6.57%	11.91%	7.52%	8.73%
A-REITs	12.58%	7.91%	9.38%	2.71%
Bonds	3.66%	3.90%	4.19%	4.87%
Cash	2.86%	3.60%	3.83%	4.80%
Direct commercial property	12.97%	10.00%	11.00%	9.19%

Source: Authors' calculations

Table 14: Asset class performance analysis, 1986:Q3–2014:Q4

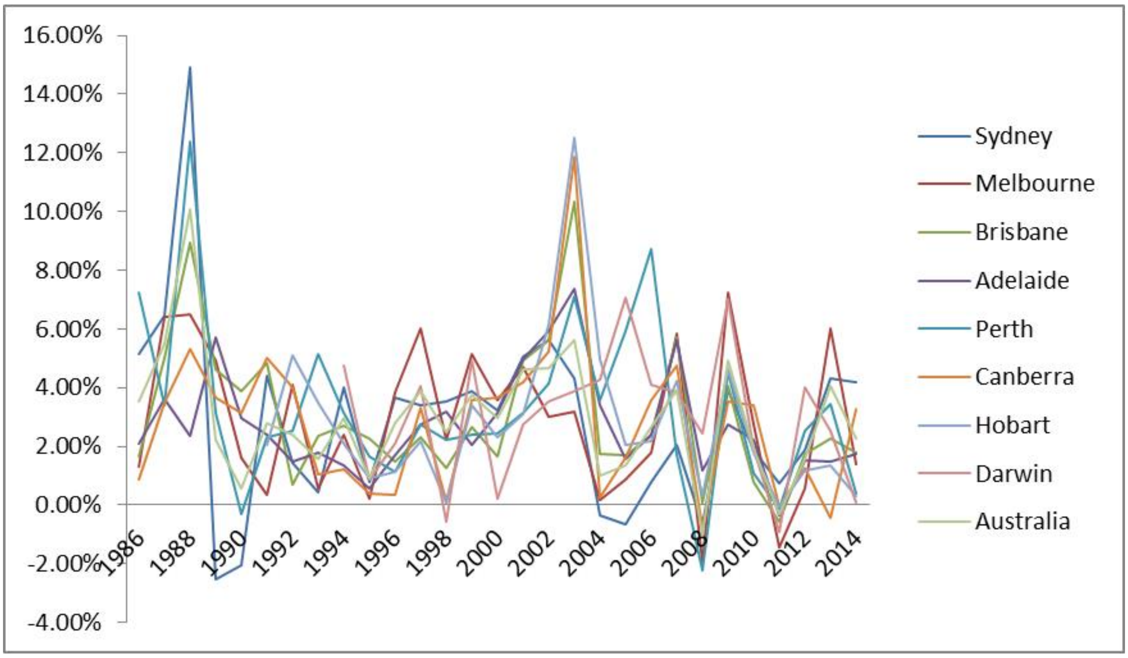
Assets	Average annual return	Annual risk	Return-to-risk ratio
Australia (average 8 cities)	12.06 %	6.76%	1.78
Sydney	11.48%	9.08%	1.26
Melbourne	11.33%	12.25%	0.92
Brisbane	12.67%	7.22%	1.76
Adelaide	11.17%	6.16%	1.81
Perth	13.14%	8.59%	1.53
Hobart	11.21%	10.00%	1.12
Darwin	12.17%	7.98%	1.53
Canberra	11.38%	8.54%	1.33
Stocks	10.38%	16.11%	0.64
A-REITs	9.52%	18.43%	0.52
Bonds	7.27%	3.06%	2.38
Cash	6.78%	3.66%	1.85
Direct commercial property	9.21%	7.48%	1.23

Source: Authors' calculations

On a risk-adjusted performance analysis basis across the eight housing markets, strong differences exist. Adelaide was the best performing housing market with a return-to-risk ratio of 1.81, while Melbourne was the worst performing housing market with a return-to-risk ratio of 0.92. This further highlights the importance of forming a diversified housing portfolio by geography in residential property investment. Nevertheless, residential property was the third best performed asset class (return-to-risk ratio of 1.78) compared to shares (return-to-risk ratio of 0.64), A-REITs (return-to-risk ratio of 0.52), direct commercial property (return-to-risk of 1.23), bonds (return-to-risk ratio of 2.38) and cash (return-to-risk of 1.85). These statistics confirm that residential property investment is an effective investment asset class that should be considered by institutional investors and included in their investment portfolios.

Another risk measurement is the chance of getting a very unfavourable return or negative return.[3] The investment stature of residential property is shown in Figure 7 below. Residential property has done quite well, in which residential property has constantly delivered positive returns over 1986–2014. All markets display less than two years with a negative total return to residential property investment, reflecting the low downside risk level of Australian residential property investment. The only exceptions are Sydney and Canberra.

Figure 7: Annual total returns of major housing markets (1986–2014)

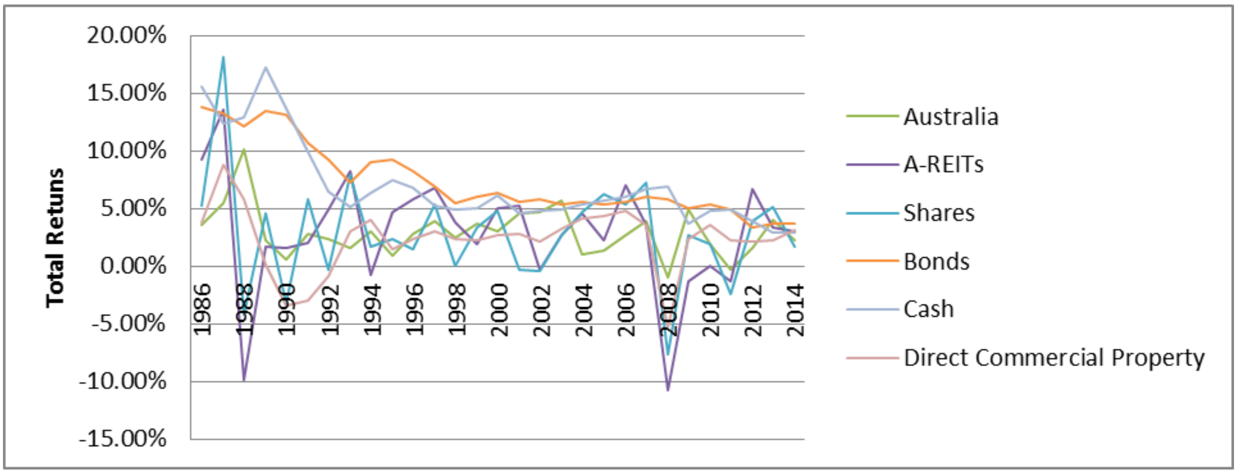


Source: Authors' calculations

Further evidence of the investment stature of Australian residential property is shown in Figure 8 below, with the investment performance of aggregate Australian residential property compared to the other major asset classes. As discussed earlier, the Australian residential property market only recorded two negative returns (or very unfavourable returns), while shares and A-REITs showed seven negative returns and direct property showed four negative returns over the study period. This further illustrates the low risk profile of residential property investment and reinforces the investment stature of Australian residential property in a mixed-asset portfolio.

[3] This risk measurement is known as downside risk. The superiority of this risk measurement is discussed by Sing and Ong (2000), Lee et al. (2007, 2008) and Lee (2009).

Figure 8: Annual total returns of major assets (1986–2014)



Source: Authors' calculations

Overall, residential property has performed strongly compared to the other major asset classes, with the residential property risk level being below stock market risk, reflecting the defensive characteristics of residential property.

5.2 Income returns

As pointed out by the Positioning Paper, institutional investors mentioned that steady income returns of the assets are one of the key considerations to be involved in the asset. This section assesses the volatility of income returns over 1986:Q3–2014:Q4. The results are presented in Table 15 below.

Table 15: Income returns of residential property

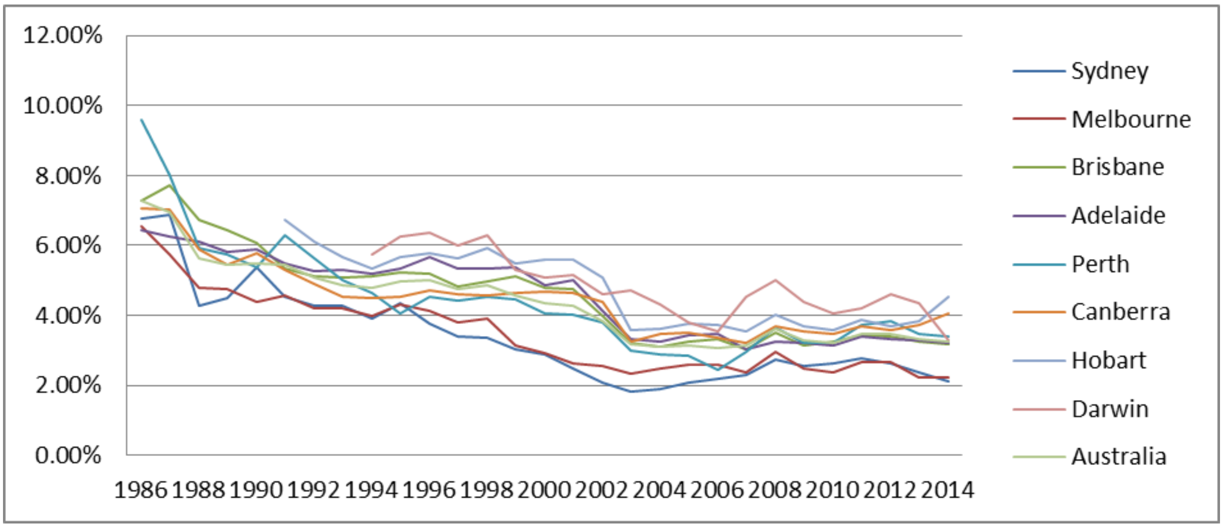
Assets	Average annual income return	Annual risk of income return
Australia (average 8 cities)	4.37%	1.16%
Sydney	3.38%	1.35%
Melbourne	3.47%	1.14%
Brisbane	4.57%	1.36%
Adelaide	4.55%	1.17%
Perth	4.43%	1.58%
Hobart	4.75%	1.04%
Darwin	4.83%	0.90%
Canberra	4.47%	1.04%

Source: Authors' calculations

Income returns are currently highest in Darwin (4.83%) and Hobart (4.75%), while the level of income returns in Sydney (3.38%) and Melbourne (3.47%) are relatively low. The low standard deviation of the income returns presented in Table 15, varying between 0.90 per cent in Darwin and 1.58 per cent in Perth, support the notion that Australian residential investment offers a steady income return.

Figure 9 below presents the historical trend of the income returns across the eight capital cities in Australia. In general, a downward trend is evident in which the income return of average Australian capital cities have been steadily decreasing from 7.02 per cent in 1986 to 3.26 per cent in 2014. Similar trends of yield compression are also observed for various Australian housing markets. This also highlights the challenges of residential investment in Australia despite it offering a steady income return.

Figure 9: Yearly income returns, 1986–2014



Source: REIA 2015b

5.3 Diversification benefits

Investors can diversify their investment risks by combining assets whose returns correlate less than perfectly. The attained diversification benefit depends on the correlation between these assets' returns. In assessing the portfolio diversification benefits of residential property, Table 16 below presents the inter-asset correlations over 1986–2014. With the correlation between the Australian housing market and the stock market being r=0.27, this indicates that there is no long-term market integration (Wilson et al. 1998). This evidence of market segmentation suggests that there are some degree of portfolio diversification benefits from including housing in a stock portfolio (Lee 2008).

The results in Table 16 also show correlations between Australian housing and the major asset classes, which are quite low. Low correlation coefficients are observed between Australian housing and A-REITs (r=0.16), bonds (r=0.12), treasury bills (r=0.07) and direct commercial property (r=0.12). The low correlation coefficients indicate that the inclusion of Australian housing would offer some portfolio diversification benefits to institutional investors' investment portfolios. More importantly, this supports the notion of housing is an effective investment asset class and it should be included in the investment portfolio for institutional investors.

Table 16: Correlation matrix for major asset classes

Assets	Australian housing	A-REITs	Stocks	Bonds	Cash	Direct commercial property
Australian housing	1.000					
A-REITs	0.162	1.000				
Stocks	0.265	0.641	1.000			
Bonds	0.122	0.020	0.082	1.000		
Cash	0.065	-0.031	0.061	0.919	1.000	
Direct commercial property	0.124	0.232	0.189	-0.091	-0.132	1.000

Source: Authors' calculations

Table 17 below assesses the opportunity to gain any portfolio diversification benefits with a diversified residential property portfolio by geographic region. The Sydney housing market and Darwin housing market is weakly correlated (r=-0.001), reflecting a high degree of portfolio diversification benefit. Weak correlation is also evident between Melbourne and Darwin (r=-0.003), Canberra and Darwin (r=-0.002), Brisbane and Darwin (r=0.06), Adelaide and Darwin (r=0.11), Hobart and Sydney (r=0.12), Hobart and Perth (r=0.15), Canberra and Sydney (r=0.16) and Perth and Melbourne (r=0.18). From a diversification perspective, therefore, a well-diversified residential property portfolio by location is critical, asserting the view of institutional investors (Newell et al. 2015). The average correlation across these eight Australian residential property markets was 0.256; reflecting overall geographic diversification benefits.

Table 17: Correlation matrix for 8 Australian residential property markets

Markets	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
Sydney	1.000						
Melbourne	0.371	1.000					
Brisbane	0.322	0.372	1.000				
Adelaide	0.193	0.421	0.545	1.000			
Perth	0.339	0.168	0.360	0.314	1.000		
Hobart	0.122	0.243	0.287	0.403	0.150	1.000	
Darwin	-0.001	-0.003	0.059	0.109	0.176	0.200	1.000
Canberra	0.158	0.308	0.437	0.438	0.282	0.393	-0.002

Source: Authors' calculations

Overall, concerning performance analysis, residential property has been shown to deliver strong long-run risk-adjusted returns, as well as portfolio diversification benefits, reflecting that residential property has been seen to be an effective investment asset, offering a range of attractive investment features. While past performance is not necessarily an indicator of future performance, the results for Australian residential property present a strong picture regarding the strategic contribution of residential property to investment portfolios in Australia.

5.4 Sub-period analysis

To enhance the specificity of the evidence, a sub-period analysis was performed in order to examine the dynamics of the Australian residential property market over time. To offer a fuller understanding of the role of residential property in a mixed-asset portfolio, the full sample period was sub-divided into two different sub-periods. The first period spans from 1986 to 1999, while the second period covers from 2000 to 2014. The first period is, in historical terms, relatively stable with much less negative returns compared with the second period that captures the effect of the GFC. The results are reported in the following Tables 18 and 19.

Table 18: Asset class performance analysis, 1986:Q3–1999:Q4

Assets	Average annual return	Annual risk	Return-to-risk ratio
Australia (average 8 cities)	*13.28 %*	*7.70%*	*1.72*
Sydney	13.27%	11.87%	1.12
Melbourne	13.07%	13.33%	0.98
Brisbane	13.35%	7.67%	1.74
Adelaide	9.90%	6.43%	1.54
Perth	13.64%	10.12%	1.35
Hobart	9.03%	8.48%	1.07
Darwin	10.69%	9.87%	1.08
Canberra	10.49%	7.64%	1.37
Stocks	12.18%	18.51%	0.66
A-REITs	13.15%	18.74%	0.70
Bonds	9.66%	2.82%	3.42
Cash	8.89%	4.22%	2.11
Direct commercial property	8.00%	8.56%	0.93

Source: Authors' calculations

By simply comparing the results in Table 14 (the entire sample period) and Table 18 (Period 1), it is clearly shown that the performance of Australian residential property, in terms of risk-adjusted performance, in Period 1 was broadly similar to the findings for the entire sample period. Results confirm the preceding findings in which residential property outperformed stocks, direct commercial property and A-REITs, suggesting that residential property is an effective investment asset class. Specifically, the total returns of housing markets ranged from 9.03 per cent (Hobart) to 13.6 per cent (Perth) over 1986–99, while the risk level of Australian residential property, varying from 6.43 per cent (Adelaide) to 13.33 per cent (Melbourne). On a risk-adjusted basis, Australian housing with a return-to-risk ratio of 1.72 was considerably higher than the return-to-risk ratios of stocks (0.66), A-REITs (0.7) and direct commercial property (0.93).

Table 19 below depicts the performance analysis of major asset classes in Period 2. Despite a clear decline in return and volatility having been observed for all assets in Period 2, the investment stature of residential property in Period 2, in general, was comparable with the findings of the entire sample. Residential property has done quite well, in which empirical evidence is available to support the notion of residential property outperforming stocks, A-REITs and direct commercial property on a risk-adjusted basis. In summary, the sub-period analysis clearly provides a broad confirmation of prior empirical work in that residential property plays a critical role in a mixed-asset portfolio.

Table 19: Asset class performance analysis, 2000:Q1–2014:Q4

Assets	Average annual return	Annual risk	Return-to-risk ratio
Australia (average 8 cities)	*10.98%*	*5.80%*	*1.89*
Sydney	9.89%	5.46%	1.81
Melbourne	9.78%	11.24%	0.87
Brisbane	12.06%	6.83%	1.76
Adelaide	12.33%	5.90%	2.09
Perth	12.68%	7.01%	1.81
Hobart	12.51%	10.81%	1.16
Darwin	12.77%	7.17%	1.78
Canberra	12.20%	9.33%	1.31
Stocks	8.79%	13.67%	0.64
A-REITs	6.35%	18.17%	0.35
Bonds	5.16%	0.94%	5.49
Cash	4.91%	1.30%	3.78
Direct commercial property	10.29%	6.40%	1.61

Source: Authors' calculations

5.5 The construction of an efficient and diversified housing portfolio

This section draws on the findings of Sections 3.1.2, 5.1, 5.2, 5.3 and 5.4; institutional investors often name a well-diversified residential property portfolio by location as one of their key investment drivers. This is also a key desirable feature of an effective residential property investment vehicle. To attain an efficient and diversified Australian housing portfolio by geographic region, Modern Portfolio Theory was employed. Specifically, a portfolio optimisation process was used. The portfolio optimisation allows us to determine the most efficient portfolio allocation.

5.5.1 Strategic asset allocation

One of the critical steps or cornerstones in the Australian residential property portfolio construction is to define an appropriate strategic asset allocation. To formulate a strategic asset allocation, we need to understand the distribution of residential property in these eight capital cities. The distribution of all private dwellings in the eight capital cities is presented in Table 20 below.

As shown in Table 20, Sydney is the largest housing market in Australia, in which more than 1.7 million dwellings are located (31%), followed by Melbourne (29%), Brisbane (15%), Perth (13%), Adelaide (9%), Hobart (2%), Canberra (1%) and Darwin (1%). The distribution of Australian residential properties in these eight capital cities offers some important insights into the construction of a housing portfolio. From a strategic allocation perspective, Sydney and Melbourne should receive a significant portfolio allocation, although both markets, reported in Table 14 above, recorded inferior return-to-risk ratios compared with other smaller housing markets such as Brisbane and Adelaide. As a result, it is recommended that 60 per cent of the fund should be allocated to Sydney and Melbourne; with a minimum 20 per cent allocation assigned to each of these markets. Strategically, the total allocation of Hobart, Darwin and

Canberra should not be higher than 5 per cent, in light of the relatively minor role of these three residential property markets compared with the other markets.

Table 20: Profile of all private dwellings of the eight capital cities, 2011

Cities	Number of private dwellings	Percentage over the total private dwellings
Sydney	1,720,333	30.45%
Melbourne	1,636,167	28.96%
Brisbane	821,059	14.53%
Adelaide	533,511	9.44%
Perth	726,004	12.85%
Hobart	94,192	1.67%
Darwin	48,542	0.86%
Canberra	69,370	1.23%
Australia	5,649,178	100%

Source: Authors' compilation from ABS 2013b

5.5.2 Housing portfolio construction

This section constructs an efficient housing portfolio by using Modern Portfolio Theory (MPT). MPT has been advocated as a more rational approach to the construction of property portfolios. Specifically, MPT was used to fully assess the asset allocation competition between various housing markets in the portfolio by using a portfolio optimisation. The portfolio optimisation process is a process for finding the optimal value (which may be a maximum return or a minimum risk). These methods are usually iterative; that is, they start with a first approximation, or 'guess', and by successive trials focus in on the optimal result (Byrne & Lee 1994). This procedure has also been widely used in property and housing portfolio management (Byrne & Lee 1994; Lee & Steveson 2005; Newell & Lee 2011).

Given the Positioning Paper has pointed out that institutional investors prefer a vehicle with a low risk level, the optimisation process will identify the best asset allocation solution, known as an efficient portfolio, which minimises the risk of the portfolio. The efficient portfolio is found by varying the proportion of funds allocated to each asset class. Several constraints that have been identified from the previous strategic asset allocation process (see Section 5.5.1) have also been imposed in the portfolio optimisation process:

1. Melbourne and Sydney were constrained to be between 20 per cent to 60 per cent of the total.
2. Total allocation for both cities should not exceed 60 per cent of the total.
3. The allocation of a single residential property market should not exceed 20 per cent of the total, the only exceptions are Sydney and Melbourne (the two largest cities).
4. Hobart, Darwin and Canberra were constrained to be between 0 per cent to 5 per cent of the total.
5. No short sales were allowed and in turn, the weights of the portfolio must be positive.
6. The fractions (asset proportions) of the total portfolio must sum to one.

These upper and lower bounds represent the typical distribution of residential property in Australia. Moreover, the intent of this study is to explore the way to achieve an efficient housing portfolio with a minimum portfolio risk level without compromising the strategic asset allocation; thereby these constraints are also consistent to the strategic asset allocation.

To perform an optimisation analysis, the full study period of 1986–2014 was sub-divided into two sub-periods, namely, period 1 (1986–2009) and period 2 (2010–14). The REIA data in period 1 was employed in the portfolio optimisation, while the data in period 2 was used for performance measurement (see Section 6.4). This study, therefore, can examine (1) whether an efficient housing portfolio is attainable and (2) the ex-ante performance of the constructed portfolio based on the out-of-sample period (2010–2014). The optimisation procedure results are presented in the following Table 21.

Table 21: Portfolio optimisation, 1986–2009

City	Return	Risk	Allocation
Sydney	11.64%	9.81%	40%
Melbourne	12.23%	12.74%	20%
Brisbane	14.43%	7.51%	12%
Adelaide	12.47%	6.33%	17%
Perth	14.75%	8.98%	6%
Hobart	13.43%	10.03%	0%
Darwin	14.15%	8.39%	5%
Canberra	12.60%	8.80%	0%
Portfolio	*12.55%*	*5.66%*	*100%*

The optimisation results suggest that an institutional investor could minimise their housing portfolio risk to 5.66 per cent by forming an efficient and diversified housing portfolio. This portfolio risk level is considerably lower than the risk levels of individual markets (varying from 6.33% to 14.15%). To attain this efficient portfolio, the investor should allocate 40 per cent of their funds in the Sydney housing market, followed by Melbourne (20%). Allocations of 17 per cent and 12 per cent are also recommended for Adelaide and Brisbane respectively. High allocations for both markets can be attributed to the high performance of both markets on a risk-adjusted basis compared with other markets. Perth represents 13 per cent of total housing stocks (see Table 20 above); a minor allocation of 6 per cent is recommended by the optimisation process. The aggressive (high return and high risk) nature of the Perth housing market over the study period could be a potential explanation for this optimisation result. Hobart and Canberra fail to obtain any allocation in the portfolio optimisation process. This could be attributed to the high correlation between these markets and Melbourne; thereby little diversification potential can be obtained. Overall, this optimisation process has clearly reinforced the benefits of a diversified housing portfolio across the major housing markets.

5.6 Summary

Several key 'take-outs' have been identified from this chapter.

1. Residential property has been shown to deliver strong long-run risk-adjusted returns, as well as portfolio diversification benefits, reflecting that residential property has been seen to be an effective investment asset, offering a range of attractive investment features.
2. Residential properties also offer steady income returns with low volatility of income returns, although yield compressions have been evident in recent years.
3. Geographic diversification strategies are effective for housing portfolio diversification.
4. The portfolio optimisation process, with the historical data from 1986–2009, asserts that an efficient and diversified housing portfolio can reduce its risk level to 5.7 per cent (the minimum level). This efficient portfolio can be attained with the following housing market allocations:

- 40 per cent in Sydney
- 20 per cent in Melbourne
- 12 per cent in Brisbane
- 17 per cent in Adelaide
- 6 per cent in Perth
- 5 per cent in Darwin.

5. It is also recommended that the proposed unlisted wholesale residential property fund allocates its funds using the abovementioned allocations.

6 STRUCTURE OF AN UNLISTED WHOLESALE RESIDENTIAL PROPERTY FUND

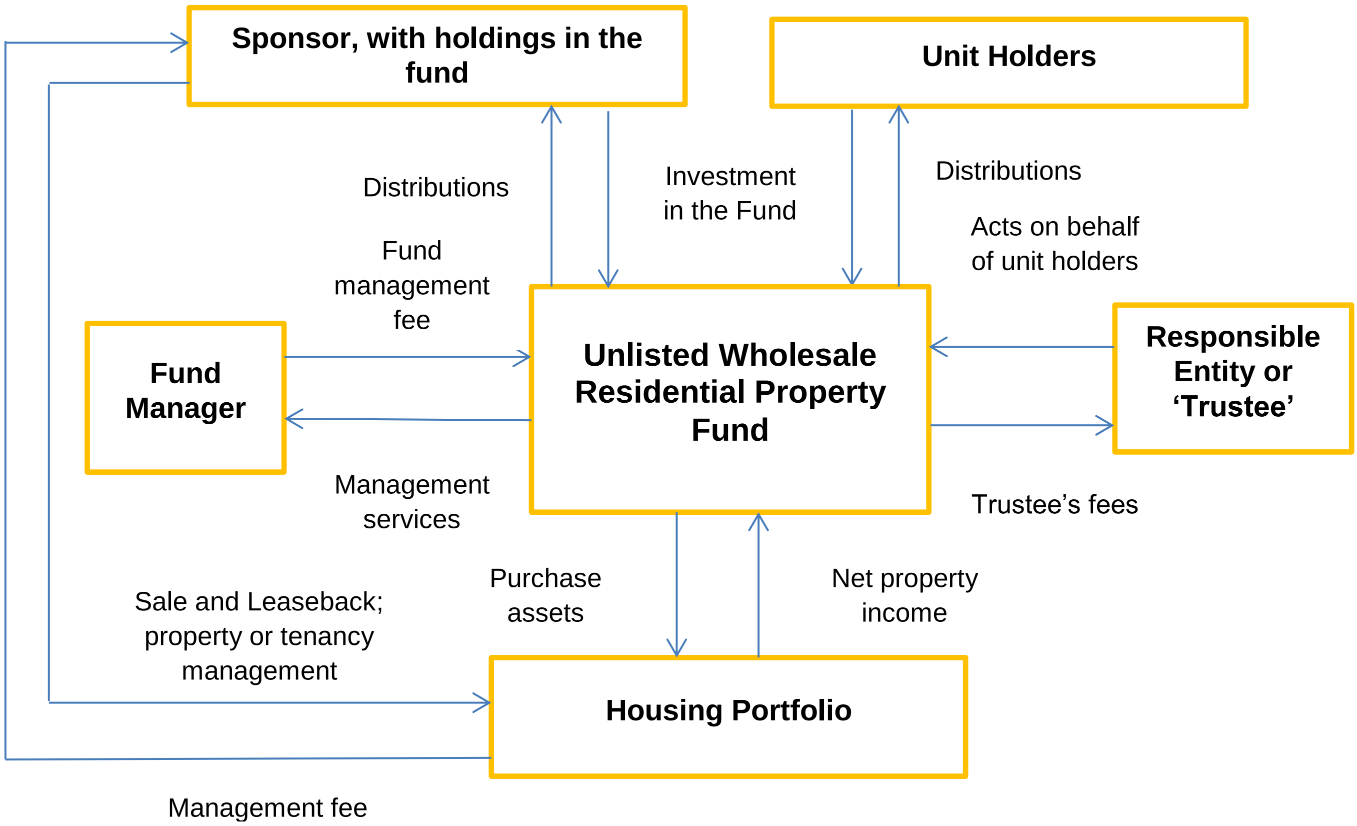
Traditionally, investment in residential property is wholly via the direct route. However, this route is less favourable and less common among institutional investors due to a variety of reasons, such as a small scale of investment, illiquidity, management issues, etc. The attractiveness of a residential property investment is likely to be enhanced by the presence of specialised indirect investment vehicles (Newell et al. 2015).

Importantly, Australian superannuation funds obtain direct property exposure via unlisted wholesale property funds instead of investing directly in acquiring their own property assets. Therefore, an unlisted wholesale residential property fund is proposed for attracting large-scale institutional investment in residential property. In this chapter, the structure of an unlisted wholesale property fund is discussed and the viability of this model is also assessed. An equivalent unlisted wholesale affordable housing fund is also proposed.

6.1 Unlisted wholesale residential property fund

The structure of an unlisted wholesale residential property fund is presented in Figure 10 below. This vehicle involves several participants such as the responsible entity (or 'Trustee'), fund manager, sponsor, property manager and unit holders. This section discusses the structure for a vehicle investing in residential property, highlighting the interrelationships, roles and requirements of the various participants.

Figure 10: The structure of an unlisted wholesale residential property fund



6.1.1 The fund

We have proposed an unlisted wholesale residential property fund structure. The fund will be registered with the Australian Securities and Investments Commission (ASIC) as a managed investment scheme. To achieve the required scale of investment and a well-diversified portfolio by location, the fund should raise at least $200 million by issue of 200 million units at $1.00 per unit. A significant initial investment requirement is expected in light of this being an unlisted wholesale residential property fund for superannuation funds. It is proposed that the minimum initial investment should be $5 million and thereafter increments of $1 million. This high level of investment requirement is also consistent with the investment preferences of institutional investors.

The fund would be a passive investment vehicle in which it pools capital from institutional investors to buy residential properties. These properties are then rented out and the net rentals received are distributed to unit holders or investors as quarterly distributions. The fund is expected to *only* engage in the activities of collecting rentals from contracted tenants by using professional management expertise (passive activities).

6.1.2 Investment objective

The fund's objective is to seek robust and stable income streams combined with the potential for capital growth over the medium to longer term through exposure to a diverse portfolio of Australian residential property by location. The fund will emphasise a long-term approach to asset investment and management, in which a 'buy and hold' property investment strategy is used. As such, the fund will be valued and traded in terms of its net asset value; thereby it will be traded as a 'low-risk' defensive asset. In addition, speculative capital appreciation of the assets or active selling to crystallise gains is not anticipated.

6.1.3 Responsible entity

Under the *Managed Investment Act 1998*, a responsible entity should be appointed to hold the scheme property in trust for unit holders. The responsible entity will act on behalf of an investment scheme and unit holders. The responsible entity should act honestly, with a reasonable degree of care, act in the best interest of unit holders and treat all unit holders equally. It is recommended that the responsible entity be an 'external' responsible entity, in which a separate fund manager will be appointed to manage the fund. This arrangement allows the responsible entity to work independently; thereby the corporate governance of the fund would be enhanced.

6.1.4 Fund manager

The fund will be managed by a professional fund manager who is responsible for the overall management of the fund. The manager oversees the day-to-day operations of the fund and plans for acquisitions. Specifically, the fund manager would, inter alia, undertake investment reviews and funds management activities, perform fund and investor administration services, promote the fund and fulfil accounting and reporting requirements. These activities should be undertaken by an experienced fund manager. Ideally, some residential fund management expertise would be required to be credible; particularly relative to the sponsor and potential institutional investors. However, in an Australian context, this is limited and reflects the current general lack of exposure to the residential sector compared to the commercial property sectors. The stature of Australian property fund management clearly shows a high level of professional property expertise in property fund management, reflecting the availability of established Australian property fund managers with track records in managing commercial property and residential property funds. Leading fund managers, including AMP Capital, GPT, Charter Hall, Dexus, Lend Lease, Stockland and others with outstanding track records could be considered as potential fund managers.

Externally-managed funds have a broader set of employees from which to select senior executives, thereby broadening the skills and experiences available to the fund. The external management structure provides significant benefits, for example the manager can use its scale to provide services at a more economical cost (Moody 2007). The fund managers would charge an annual management fee of around 0.68 per cent. This is an average management fee that is charged by Australian unlisted wholesale property funds. The fee is expected to fall within the range from 0.07 per cent to 1.37 per cent (PIR 2014). In addition, Australian unlisted wholesale funds may charge an entry fee (0%–4%) and a performance-based fee that is also typically applied if the performance of the fund is higher than the target return or benchmark return (PCA 2001).

6.1.5 Sponsor

The most likely route for long-term growth of the private rental sector is transferring properties from large Australian housing operators into the fund. Therefore, a sponsor is required. A sponsor would be a housing operator such as Defence Housing of Australia which will have a co-investment in the fund as well. Wong et al. (2013) highlighted that a large proportion of sponsor's holding should improve the corporate governance of the fund. Most importantly, firm quality is positively related with equity retained by insiders or sponsors (Downes & Heinkel 1982). Consequently, a reputable sponsor would need to demonstrate its commitment and alignment of interest, such as unit ownership, to alleviate the concerns of agency issues and signal the quality of the fund.

Importantly, sponsor-linked funds are in a more favourable position to embark on strategic growth through acquisitions compared to non-sponsored funds. Specifically, the sponsor-linked fund will form the fund's pipeline of assets to be acquired and have a sizeable portfolio of properties available that may be transferred to the fund at the appropriate time by the sponsor. In particular, a large scale of residential property acquisitions in the competitive acquisition market would also put the fund in a disadvantaged position in having to bid for assets on the open market. Cooke and Kemp (2002) also highlighted the challenge of forming a large-scale housing portfolio by acquiring from the competitive acquisition market. Therefore, the support from a sponsor is paramount. The key issue is what do sponsors gain from putting their housing stock into a vehicle they would not fully control (because the Fund Manager would be in charge). Key aspects include ongoing property management and co-investment issues (see Section 6.1.6 below).

Normally, a sponsor will participate in the fund management team as well. However, this arrangement is not recommended, as it tends to invite agency problems (Wong et al. 2013). More importantly, many housing operators do not have the expertise and skills in funds management. Therefore, the overall management of the fund should be undertaken by an experienced and professional fund manager, instead of a housing operator. The sponsor would likely seek to be on the Investment Committee for the fund to facilitate alignment of interest or a degree of control in the fund's operation.

In the UK, a different model is now being considered. Housing stock will be sourced from builders, committed to off-plan to ensure scale and management efficiencies at a fixed-price. The fund, through its own property management, will take responsibility for letting on completion. Thus, the fund will not be exposed to construction (or planning/entitlement) risk, but will still have leasing risk; however, with short residential tenancies, owners have much more letting risk anyway. The advantage of this approach, from having a sponsor, is that housing stock can be sourced from a variety of players, which should give greater flexibility for a diversified portfolio. This model may also need to be considered in an Australian context; dependent upon its UK success (Goodchild 2015).

6.1.6 Property management

Although a sponsor or housing operator should not have a significant stake in the fund management company, the housing operator should engage in the activities of individual property management. Given the housing operator is the sponsor and has been managing individual residential properties, the housing operator has the expertise and track record in managing the properties. Conflicts of interest would need to be avoided, and the management process carefully monitored.

The relationship between the rental properties and the fund would be defined by a sale-and-leaseback arrangement between the housing operator and the fund in exchanging the right for the housing operator to manage the individual properties. For instance, the housing operator as the sponsor will sell individual properties to the fund and agree to lease each property for a period of time (say 10 years). Under the lease agreement, the housing operator will be granted and obligated to undertake a range of property-related services on the fund's behalf and embark on the day-to-day management of the individual properties, while the housing operator would charge a property management fee (normally 5%–7%) of the rental income per property (IBISWorld 2015). The housing operator will provide services including property administration, tenancy management, property repairs and maintenance.

This arrangement will mitigate the tenancy risk of the fund. As such, there is minimal risk to quarterly distributions and a stable income steam would be provided to the fund and unit holders; thereby the perceived risk of the fund can be minimised. A recent example of this sale-and-leaseback agreement is Centric DHA Residential Property Fund, in which a sale-and-leaseback agreement has been signed between the Centric DHA residential property fund and DHA. DHA agreed to lease each property for a period of 9 to 12 years. At DHA's sole discretion, it may extend the lease by up to four years and/or reduce the term by up to one year. This arrangement will mitigate tenancy risk.

6.1.7 Housing portfolio

As discussed in Section 6.1.5, the proposal is for a sponsor-linked fund in which the sponsor will deliver the fund's pipeline properties. Hence, the fund would be able to avoid acquiring properties aggressively from the competitive market. The median housing price in Australia was $641 000 in Q4:2014 (REIA 2015a); as such, the fund with a fund size of $200 million is expected to acquire 312 individual residential properties (see Tables 21 and 25). To ensure the success of the fund, it should acquire high quality yield-producing residential properties to include in the fund's portfolio. However, high-end properties will not be considered by the fund as these properties may offer lower yields.

A well-diversified housing portfolio by location should also be formulated (Newell et al. 2015). Importantly, the properties will be predominantly located in capital cities, where most Australians are living. The portfolio should comprise a variety of types of property, including freestanding houses, townhouses and apartments.

An alternative property portfolio strategy would be to acquire large apartment blocks where management efficiencies can be captured. This is typically 80+ units in the UK, with US-style multi-family housing (via REITs) seeing even larger numbers of apartments in the US portfolios. The benefits of holding units in say an apartment complex are twofold; the first is for financial efficiencies, and the second because it also allows for much greater redevelopment and reconfiguration possibilities in the future. However, it may also dampen liquidity and reduce the geographic diversification. We consider this to be a more difficult portfolio strategy to implement in Australia due to its smaller scale of apartment developments.

To achieve a mixed-value portfolio, with some higher value properties balancing out the low value properties, a reasonable property value ceiling should be introduced. The failure of UK Housing Investment Trusts suggests that a low property value ceiling is not desirable.

Nonetheless, a maximum allocation to any single property is essential from a portfolio management perspective. Hence, to avoid property concentration risk, a maximum allocation to any single property (or development) of 2 per cent of the total value of the portfolio should be introduced in order to ensure the diversification of the fund.

The fund is also allowed to re-balance its portfolio from time to time as part of its broader asset allocation strategy. Importantly, an active portfolio-rebalancing strategy is one of the portfolio management practices of institutional investors. Hence, no trading rule that restricts the purchase and sale of individual properties within the portfolio will be applied. The fund manager, in conjunction with the Investment Committee, acting in the best interest of investors, can sell properties within the portfolio and buy high quality properties with good potential for yield enhancement and diversification.

6.1.8 Unit holders

This unlisted wholesale residential property fund provides residential property investment opportunities for larger investors such as superannuation funds to achieve direct residential property exposure. In 2014, the average number of investors for unlisted wholesale property funds was 35 investors. Typically, unlisted wholesale funds have a small number of investors; these are the superannuation funds making significant commitments to these wholesale property funds. The fund will seek the commitment and support from superannuation funds; thereby the major unit holders of the fund would be superannuation funds. Importantly, Australian superannuation funds have an allocation target of 9.5 per cent, on average, in property (APRA 2015). For instance, CBUS and Rest Super target to allocate 12.5 per cent and 11 per cent of their funds into the property sector respectively. This sees many opportunities for promoting the fund to the superannuation funds. Capital raising for an unlisted wholesale fund is normally a lengthy period; typically in excess of 12 months, depending on market conditions and the reputation of the fund manager.

The sponsor of the fund would also be expected to hold a significant cornerstone investment in the fund (see Section 6.1.5). Post-fund establishment support by the sponsor is important for the fund in terms of future growth opportunities. As discussed by Gompers and Lerner (1999) and Cai et al. (2007), successful sponsors are defined as those who maintain their ownership in the fund during the first three years after fund establishment. Therefore, the sponsor should retain high ownership.

6.1.9 Alignment of interest

The unlisted wholesale residential property fund is managed externally by a reputable fund manager. The external management structure provides significant benefits, for example the manager can use its scale to provide services at a more economical cost. However, external structures can create governance risks. Specifically, the external management structure provides managers with significant influence over strategic direction and corporate decision-making; hence there is a risk that external managers can use their significant influence over the fund to further their own interests over those of the fund's shareholders. This can be of particular concern in situations where the external manager manages more than one fund, and could consider the interests of the collection of funds under its management over the interests of each individual fund (Moody 2007).

To mitigate this risk, the alignment of interest between the fund's shareholders and the external manager should be enhanced. To provide an incentive for the external manager to remain more cognizant of the interests of the fund and its key stakeholders, the external manager retains a significant interest in the fund; thereby co-investment by the external fund manager is required (Moody 2007). Typically, at least a 10 per cent co-investment by the fund manager is required. The co-investment will ensure that the fund manager is most likely to consider the long-term interests of other shareholders.

6.1.10 Closed-ended versus open-ended fund

As highlighted in Section 4.1, unlisted wholesale property funds are offered as closed-end funds (i.e. fixed life; typically 5–10 years) or open-ended funds (i.e. no fixed life). There is no standard model that should be followed. Therefore, the unlisted wholesale residential property fund is recommended as an open-ended fund; thereby it allows other institutional investors to participate in the fund from time to time. This also allows some degree of liquidity, with possible unit redemption that is subject to a liquidity protocol (see Section 7.3). In addition, Newell (2014) found that open-ended funds delivered superior average annual returns, lower risk and superior risk-adjusted returns compared with closed-end funds. Although closed-end funds may alleviate the problem of unexpected withdrawals from unit holders, which may to lead a serious liquidity issue, particularly during the crisis period, closed-end funds do not allow investors to exit the fund until the stated termination period, suggesting that no liquidity is available for unit holders during the suggested holding period.

6.1.11 Gearing

The fund intends to keep borrowing at a low level, and not enter into any derivative transactions. This is consistent with the survey results of Newell et al. (2015), in which an effective investment vehicle with low debt is a desirable feature that is required by institutional investors. Maximum gearing levels of 30–40 per cent are expected. While the general level of gearing by unlisted wholesale property funds is currently 15 per cent, higher gearing is needed in this model to enhance returns. This is still considered to be a low risk fund strategy. Gearing at a maximum individual property level is also expected to be implemented.

6.1.12 International property investment

The fund is a passive Australian housing investment vehicle, in which international property investment is not allowed. While international property investment may lead to higher returns, the risks associated with international residential investment may outweigh its benefits. Specifically, international property introduces the additional risk factors of currency risk, as well as local knowledge risk and country risk. In other words, a fund with international property investment will take on more risk due to currency risk. While the currency risk can be effectively managed via effective risk management and hedging strategies such as derivative instruments (i.e. cross-country swaps), using a joint venture structure with local market participants, accessing transparent property markets and using skilled currency risk management teams, these strategies require active currency risk management and are costly (Newell & MacIntosh 2007; Lee 2010). In particular, the objective of the fund is to provide a stable income stream. As such, international property investment should not be allowed.

6.2 Assessment of the proposed unlisted wholesale residential property fund structure

This section assesses the benefits of the proposed investment vehicle structure. In particular, it examines whether the introduction of this unlisted wholesale residential property fund model would successfully address several limitations of direct residential property investment as highlighted by Newell et al. (2015) in general, and whether the vehicle with the required desirable features of effective residential investment vehicle addresses these limitations in particular.

6.2.1 Limitations of direct residential property investment

Numerous benefits are expected with the launch of an unlisted wholesale residential property fund as outlined above, including:

Lack of professional property management

An unlisted wholesale fund managed by experienced property managers would address the management issue effectively. It is recommended that the fund be managed by a professional property manager (e.g. housing operator) with a track record. The property manager would have a long history of managing residential property, and have the requisite skills and expertise to manage a national portfolio of residential property assets. The manager would be able to deal with all management issues in a timely and professional manner. This allows institutional investors to not have to be involved in direct management responsibility and addresses the burden of property management issues for residential property investment.

Small scale of investment

The fund is a wholesale fund with high minimum investment requirements ($5 million). The feature of high minimum investment level meets the desirable scale of investment by institutional investors. Institutional investors, in general, prefer a large-scale investment. Milligan et al. (2013) also asserted that an effective residential fund should have a fund size between $50 million and $200 million and be a replicable vehicle; with superannuation funds not wanting 'orphaned assets'. Superannuation funds did not want to do all the underwriting and financial analysis and then have the fund be the only one of its kind. They typically want to invest regularly in the next fund of the same structure and fundamentals. Importantly, unlisted wholesale funds have an average size of $855 million as of June 2014 (PIR 2014). Therefore, it is reasonable to expect that the unlisted wholesale residential property fund should be able to achieve the desirable investment scale of institutional investors; dependent on the level of capital raising from the institutional investors.

Lack of liquidity

The onset of an unlisted wholesale residential property fund also partially addresses the issue of illiquidity, which is one of the key obstacles for institutional investment in direct residential property. Normally, unlisted wholesale funds will be redeemed (if possible) on a quarterly basis; thereby limited liquidity can be provided to investors, although this is not guaranteed by the fund manager. The provided liquidity is sufficient for institutional investors. Typically, it involves matching up with another superannuation fund seeking to invest in the fund, although these superannuation funds will not require high liquidity as they are long-term investors with significant diversified portfolios. This notion was confirmed by the fact that Australian superannuation funds largely use unlisted wholesale property funds instead of the direct route to achieve their direct property exposure (Newell et al. 2015).

High transaction costs

Direct property investment involves significant transaction costs (e.g. stamp duties, agent fees and legal costs). For instance, a residential property with the worth of $1 million is required to pay $40 490 (almost 4.05%) or $55 000 (almost 5.5%) as the stamp duty in New South Wales and Victoria respectively. However, indirect property investment via the unlisted wholesale residential property fund would significantly reduce the transaction costs due to the number of fund investors. According to the Property Council of Australia (PCA 2001), the entry fees of unlisted property funds are generally 0 per cent to 4 per cent.

6.2.2 The desirable features of an effective residential investment vehicle

This section assesses the effectiveness of the unlisted wholesale residential property fund in achieving the desirable features of an effective investment vehicle. As discussed in Section 6.1, a reputable fund manager will be appointed to manage the fund; thereby this desirable feature would be met.

A prudent investment strategy will be used by acquiring stabilised yield-producing properties with low vacancy risk in various locations in light of the sale-and-leaseback arrangement with the sponsor. This prudent investment strategy is expected to deliver a diversified portfolio by location and stable income returns to investors. Given the fund is an unlisted property fund and it only intends to borrow at a low level, it is expected that it will be traded based on its net tangible assets and not subject to stock market sentiments (e.g. for A-REITs); thereby a low volatility level is expected. In addition, this unlisted wholesale residential property fund with a high level of minimum investment requirements would achieve a scale of investment that is required by institutional investors.

Nevertheless, the fund may not include affordable housing in its portfolio. Newell and Lee (2014) have demonstrated the lesser role that social housing plays against the other assets, including residential property in which there was no social housing 'premium' evident versus residential property. Conversely, a social housing 'discount' was evident, reflecting that the expected return of social housing may not match the expected return of institutional investors. Nevertheless, the issues relating to social housing are far more complex than just a risk-adjusted performance analysis. The issues include social need, vulnerable sectors in the community and broader aspects of social responsibility.

Importantly, corporate social responsibility (CSR) has taken on increased stature in recent years and socially responsible investment (SRI) has become an integral component of mainstream investing, accounting for over US$11 trillion globally (Sparkes & Cowton 2004; Eurosif 2010). A firm is generally encouraged to adopt CSR due to a variety of reasons, such as environmental improvement, reduction in social inequality, reputation enhancement, etc. (Wu & Shen 2013). Importantly, property investors have given an increased priority to the CSR dimensions of environmental, social and corporate governance issues in their property investment decision-making (Newell & Lee 2012). While the economic investment fundamentals must still stand on their own in investment decision-making, CSR has been actively adopted by many Australian superannuation funds. This sees the opportunity for establishing a fund with an affordable housing portfolio to meet the increased demand from CSR investors.

6.2.3 Conclusion

Key features of the unlisted wholesale residential property fund are summarised in Table 22 below.

Table 22: Key features of unlisted wholesale residential property fund

Key features	**Assessment**
Experienced fund managers	✓
A diversified portfolio by location	✓
Large scale of investment	✓
Stable income	✓
Low debt level	✓
Liquidity	**✓(limited)**
Low level of volatility	✓
Experienced property managers	✓
Enhancing affordable housing supply	✗
Individual investors	✗
Transaction costs	✓

Source: Authors’ compilation

The effectiveness of the proposed unlisted wholesale residential property fund can be more fully discussed in the following SWOT analysis.

Strengths

→ It addresses the limitations of direct property investment (e.g. management burden, large scale of investment, illiquidity and high transaction costs).

→ Numerous desirable characteristics are observed such as 'being managed by a reputable fund manager', 'providing stable income yield streams', 'a diversified portfolio by location', 'a large scale of investment', 'high quality residential property portfolios' and 'low volatility'.

→ Low tenancy risk, in which a long-term lease will be signed between the housing operator (i.e. the sponsor) and the fund.

Weaknesses

→ The fund returns are diluted by around 0.68 per cent as a result of management fees at the fund level.

→ Retail or individual investors are unlikely to participant in the fund.

→ Affordable housing probably may not be included in the portfolio, as the fund does not have a CSR mandate. Therefore, while it may be a valuable source of diversification to the fund, this model may not increase the housing options of low and moderate-income households.

Opportunities

→ The fund is expected to create a market for rental residential property investment in Australia.

Threats

→ Rising interest rates and consequently lower housing affordability could put pressure on sale prices, leading to lower returns compared with other asset classes.

Overall, the proposed unlisted wholesale residential property fund is the most appropriate model to attract institutional investing into the residential property market. However, the support from individual 'retail' investors would be doubtful due to the high minimum entry requirements; hence it is clearly seen as a product targeted to institutional investors. In addition, there is no guarantee that the fund will include affordable housing in its portfolio as it does not have a CSR mandate.

6.3 The performance of the unlisted wholesale residential property fund

This section assesses the performance of the unlisted wholesale residential property fund based on a hypothetical housing portfolio. The hypothetical housing portfolio of the unlisted wholesale residential property fund was constructed based on the optimisation process in Section 5.5.2. This optimisation process suggests that an efficient residential property fund should allocate 40 per cent of the total fund in Sydney, 20 per cent of the total fund in Melbourne, 12 per cent in Brisbane, 17 per cent in Adelaide, 6 per cent in Perth and 5 per cent in Darwin. The housing portfolio of the fund is summarised in Table 23 below.

Table 23: The unlisted wholesale residential property fund, allocation

City	Allocation (percentage)	Allocation (A$ Million)
Sydney	40%	$80M
Melbourne	20%	$40M
Brisbane	12%	$24M
Adelaide	17%	$34M
Perth	6%	$12M
Darwin	5%	$10M
Total	*100%*	*$200M*

Source: Authors' compilation

This section examines the performance of this hypothetical portfolio over 2010–14. Importantly, the return and risk levels of the portfolio are also compared with major assets. The results are presented in Table 24 below. The average total return on residential investment varies between 3.29 per cent for Hobart to 10.73 per cent for Sydney, while the risk level is highest in Melbourne (9.61%) and lowest in Brisbane (3.91%). Over 2010–14, the housing portfolio offered 7.93 per cent return to investors with a risk level of 3.78 per cent. The portfolio return of 7.93 per cent is higher than the recorded returns for all individual housing markets, except for Sydney with a return of 10.73 per cent. Nevertheless, the portfolio risk level of 3.78 per cent is lower than the risk levels of all individual markets, reflecting the diversification benefit of the housing portfolio by location.

Concerning the risk-adjusted returns, the housing portfolio was ranked as the second best performing asset with a return-to-risk ratio of 2.10 compared to Sydney (2.48), Brisbane (1.22), Adelaide (1.20), Perth (1.10), Darwin (1.06), Canberra (0.86), Melbourne (0.75) and Hobart (0.36). Another result worth noting is that the assertion of no allocation to Canberra and Hobart from the portfolio optimisation process in Section 5.5 (based on the dataset from 1986 to 2009) appears as the appropriate allocation strategy in light of both markets were relatively underperformed housing markets over the out-of-sample period (2010–14). In addition, Melbourne, one of the largest Australian housing markets, was ranked as the second worst performing market. Although 20 per cent was allocated to this market due to the strategic asset allocation requirement, this allocation did not affect the overall performance significantly. Again, this highlights the effectiveness of the constructed housing portfolio.

Table 24: The performance of unlisted wholesale residential property fund and various housing markets

City	Average annual return	Annual risk	Return-to-risk ratio (ranking)
Sydney	10.73%	4.32%	2.48 (1)
Melbourne	7.18%	9.61%	0.75 (8)
Brisbane	4.77%	3.91%	1.22 (3)
Adelaide	5.27%	4.40%	1.20 (4)
Perth	5.83%	5.32%	1.10 (5)
Darwin	6.07%	5.70%	1.06 (6)
Hobart	3.29%	9.15%	0.36 (9)
Canberra	5.83%	6.79%	0.86 (7)
The fund	*7.93%*	*3.78%*	*2.10 (2)*

Source: Authors' compilation

Table 25: The performance of unlisted wholesale residential property fund and various asset classes

City	Average annual return	Annual risk	Return-to-risk ratio (ranking)
The fund	7.93%	3.78%	2.10 (4)
A-REITs	9.38%	8.69%	1.08 (5)
Stocks	7.52%	12.96%	0.58 (6)
Bonds	4.19%	0.89%	4.71(2)
Cash	3.83%	0.95%	4.04 (3)
Direct commercial property	11.01%	1.56%	7.07 (1)

Source: Authors' compilation

With respect to the performance of the housing portfolio in a mixed-asset portfolio, we found that the housing portfolio of the fund was the fourth best performing of the six assets considered in this study (see Table 25 above). The fund was outperformed by direct commercial property (7.07), bonds (4.71) and cash (4.04). However, the fund outperformed two core assets of A-REITs (1.08) and stocks (0.58). Over 2010–14, although the housing portfolio of the fund only offered around 8 per cent return, the risk level of the housing portfolio was low (3.78%). This risk level is substantially lower than the stock market (13%) and A-REITs (9%). This highlights the potential diversification benefits from including the housing portfolio of the fund in a mixed-asset portfolio. Given the strong risk-adjusted performance of the housing portfolio of the fund relative to some core assets (stocks and A-REITs), this will potentially see pressure on the level of stocks in the portfolio when the fund is considered in the fuller mixed-asset portfolio efficient frontiers and asset allocations.

To consider the unlisted wholesale residential property fund for portfolio inclusion, an institutional investor must be satisfied that the incremental reward or diversification opportunity from adding this asset class is worth the effort; hence the link between the housing portfolio of the fund and core assets is assessed. Mixed-asset portfolios are constructed for:

- Scenario 1: stocks, bonds, A-REITs, cash and direct commercial property.
- Scenario 2: stocks, bonds, A-REITs, cash, direct commercial property and the housing portfolio of the fund.

An analysis of the current asset allocations of superannuation funds is performed to ensure that the constructed portfolios are consistent with the typical asset allocation of institutional investors. Table 26 below presents the average asset allocation of superannuation funds in the major assets in June 2013, with asset allocation differences also evident among the different types of superannuation funds (e.g. industry, public sector and corporate).

Table 26: Asset allocation of various types of superannuation funds, June 2013

Assets	Corporate	Industry	Public sector	Retail	Total
Stocks	58%	54%	49%	48%	51%
Listed property (e.g. A-REITs)	1%	1%	4%	4%	2%
Unlisted property (e.g. direct commercial property)	7%	10%	6%	2%	7%
Bonds	20%	11%	14%	22%	15%
Cash	6%	6%	9%	14%	8%
Other assets	8%	19%	18%	9%	16%
Total	*100%*	*100%*	*100%*	*100%*	*100%*

Source: APRA 2014

As shown in Table 26 above, superannuation fund portfolios typically comprised shares (48%–58%), bonds (11%–22%), cash (6%–14%), listed property (1%–4%), unlisted property (2%–10%) and other assets[4] (8%–19%). There are typical allocations by superannuation funds to the various assets. In other words, a portfolio that does not comprise stocks and/or bonds would not be consistent with the typical allocations of major superannuation funds. It is important, therefore, to consider this strategic issue in the context of portfolio construction. To assess the benefits of the inclusion of the unlisted wholesale residential property fund in an institutional investor's portfolio, a constrained portfolio analysis is performed in which a strategic asset allocation is introduced and considered in the portfolio optimisation and construction. The constraints or strategic allocations for each major asset are represented in Table 27 below.

Table 27: Asset allocation constraints

Assets	Scenario 1	Scenario 2
Stocks	Less than 60%	Less than 60%
Listed property (e.g. A-REITs)	Less than 4%	Less than 4%
Unlisted property (e.g. direct commercial property)	Less than 10%	Less than 10%
Bonds	Less than 20%	Less than 20%
Cash	Less than 15%	Less than 15%
Unlisted wholesale residential property fund	0%	Less than 5%

Source: Authors' compilation

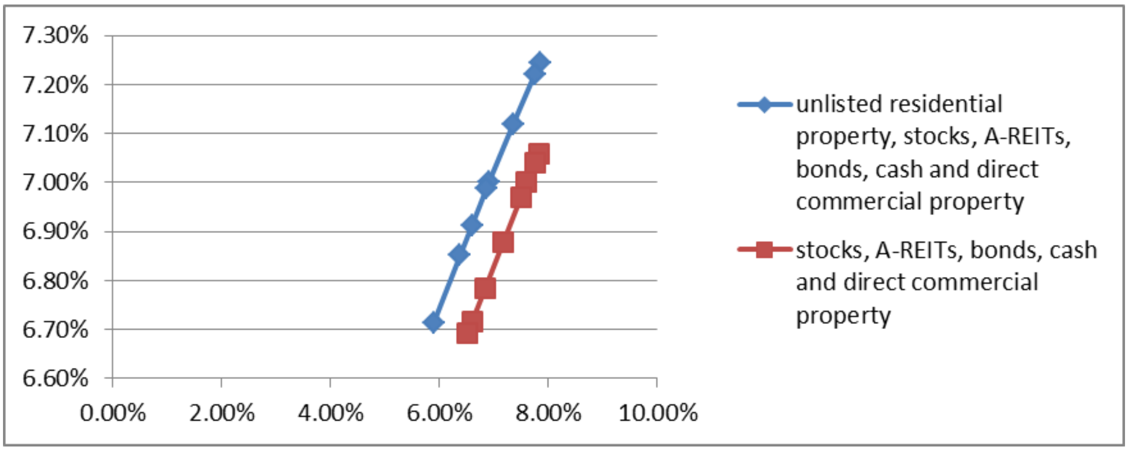
Figure 11 below depicts the efficient frontier for these two mixed-asset portfolio scenarios. The added value of including the fund in the mixed-asset portfolio is clearly evident in the efficient frontiers for these two scenarios in Figure 11. Specifically, scenario 2 with the inclusion of the fund is over a reduced risk spectrum of 5.89 per cent to 7.84 per cent, due to the stronger performance at low risk by the fund. A closer investigation has also further revealed that the portfolio with the inclusion of the unlisted wholesale residential property fund (scenario 2) offers a lower risk level, at the same return level, compared with the portfolio without the fund (scenario 1). For instance, at the return level of 7 per cent, the portfolio risk of scenario 2 (6.91%) is lower than scenario 1 (7.6%). More importantly, Figure 12 below has also shown

[4] Other assets include private equity, infrastructure, hedge funds and commodities. The alternative assets are not considered in this analysis. However, the role and the performance of these alternative assets in a mixed-asset portfolio can be found in Newell and Lee (2011).

that the portfolio with the unlisted wholesale fund (scenario 2) provides an enhanced portfolio return (7.22%) compared with scenario 1 (7.04%) at the risk level of 7.75 per cent. This confirms the role of the unlisted wholesale residential property fund in an investment portfolio.

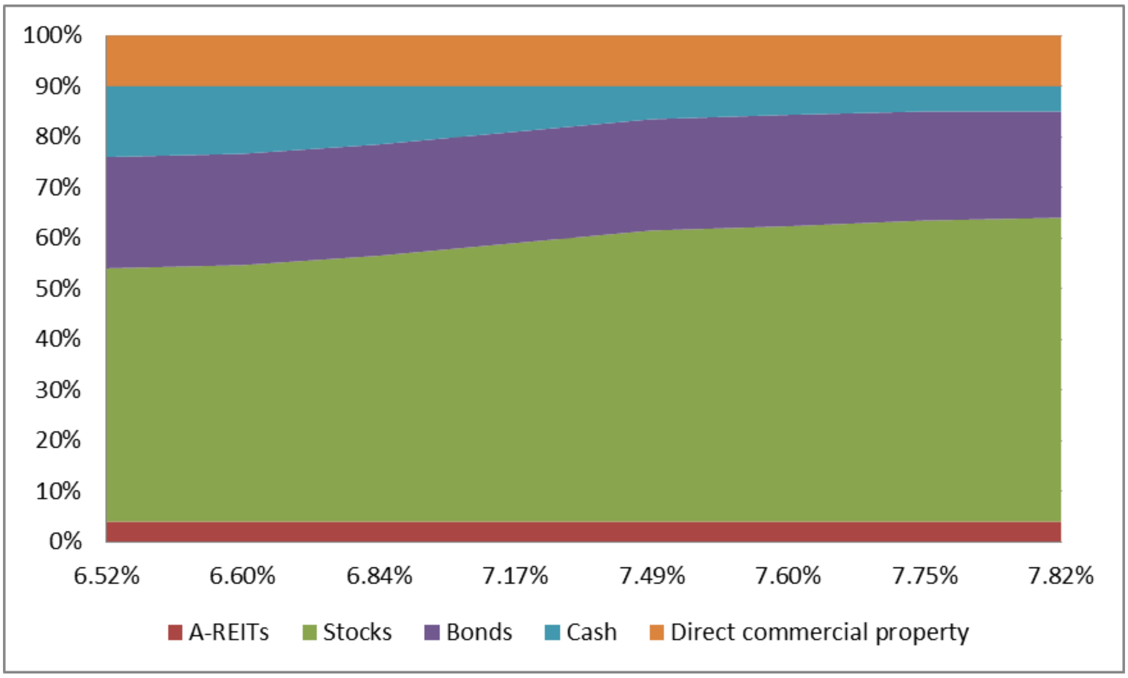
Figures 12 and 13 below present the asset allocation diagrams under scenarios 1 and 2. For the portfolio only including major assets without the housing portfolio (scenario 1), the portfolio is dominated by stocks, with shares progressively increased in the portfolio at higher risk levels. Additionally, the allocations to bonds (22%), commercial property (10%) and A-REITs (4%) have been maintained across the full risk spectrum. When the unlisted wholesale residential property fund is included in the portfolio with the major assets (scenario 2), this sees the fund figuring in the portfolio across the full risk spectrum at a level of 5 per cent (the maximum strategic allocation to this asset). As seen in Figure 14 below, the inclusion of the unlisted residential property fund in the mixed-asset portfolio sees reduced levels of shares, at low portfolio risk levels, in the portfolio. This highlights the critical role of the fund in the mixed-asset portfolio.

Figure 11: Efficient frontiers for unlisted wholesale residential property fund and major assets



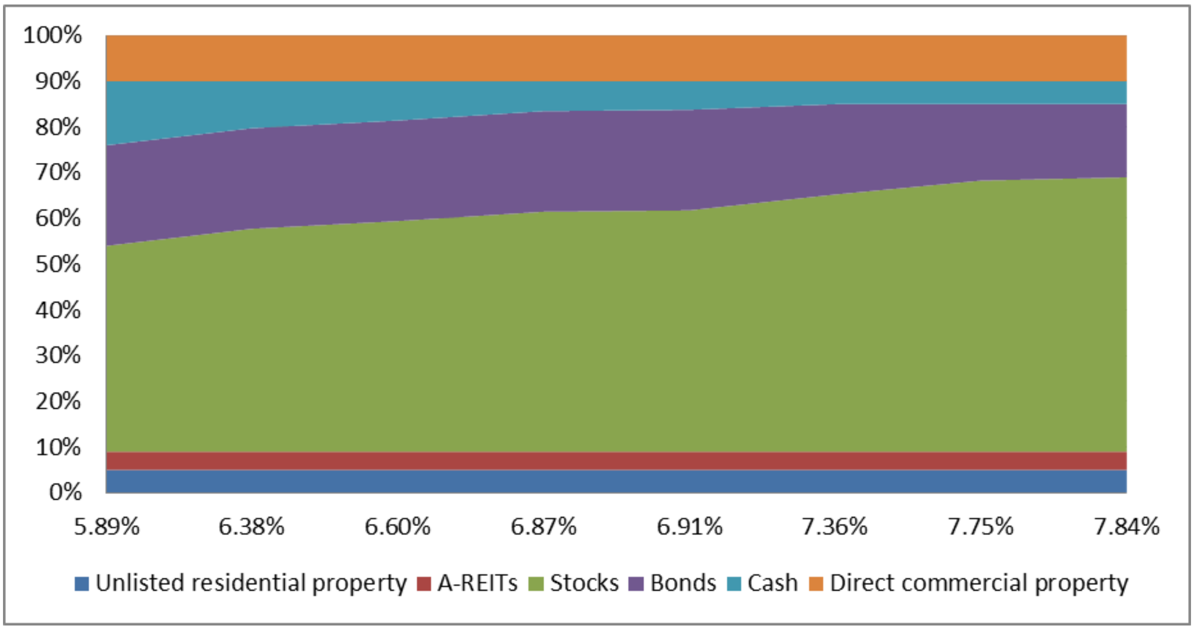
Source: Authors' compilation

Figure 12: Asset allocation diagram for major assets (scenario 1)



Source: Authors' compilation

Figure 13: Asset allocation diagram for major assets and unlisted residential property (scenario 2)



Source: Authors' compilation

Overall, the performance analysis of the unlisted wholesale residential property fund indicates that the fund is an effective investment vehicle that offers a moderate risk-adjusted return, which is higher than stocks and A-REITs. The constrained portfolio analysis has further shown no empirical evidence that the inclusion of the unlisted wholesale residential fund will dilute the overall portfolio performance for an institutional investor portfolio. In fact, an enhanced portfolio return is observed by including the unlisted wholesale residential fund in the portfolio. Additionally, an allocation of 5 per cent in the unlisted wholesale residential property fund is also suggested by the portfolio analysis. This presents a very positive context for superannuation funds for the inclusion of residential property in their portfolios.

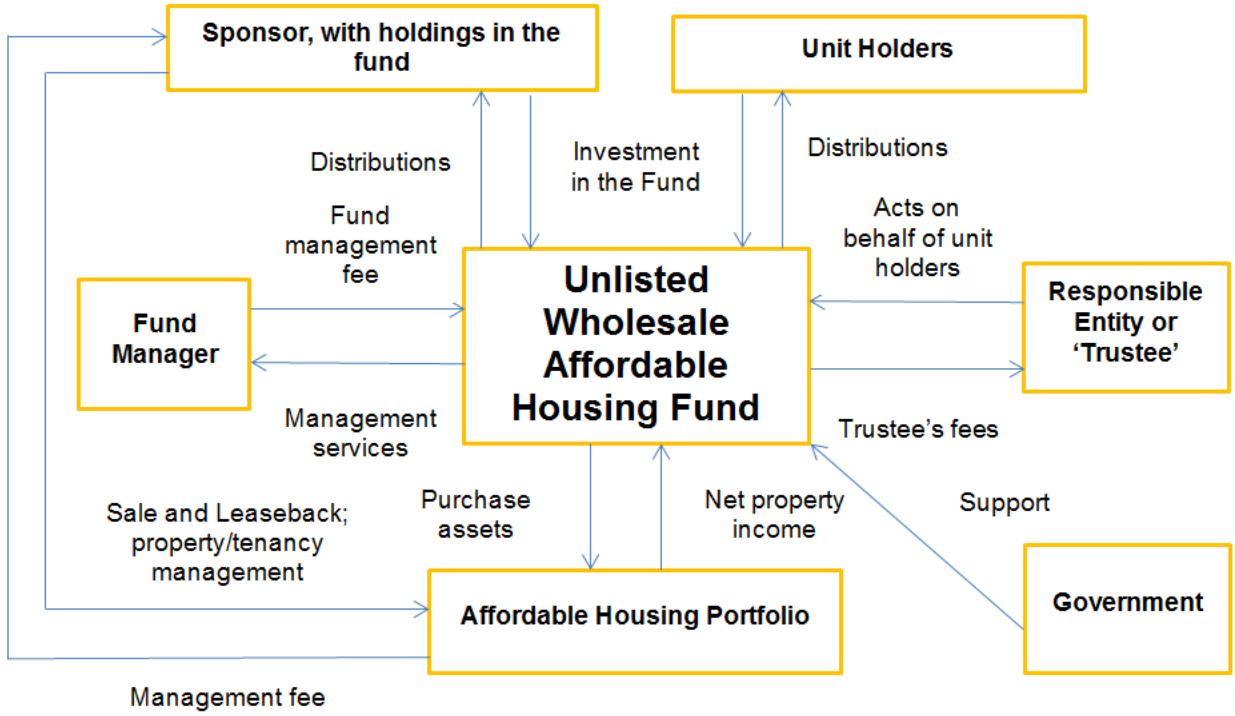
6.4 Proposed unlisted wholesale affordable housing fund

Given the greater number of rental housing sponsors with large-scale portfolios of assets and the growth of CSR investing in recent years, we have also proposed an unlisted wholesale affordable housing fund in which socially responsible investment should be considered in the unlisted wholesale affordable housing fund's decision-making. To achieve its social responsibility mandate, affordable housing would be included in its housing portfolio. The structure of an unlisted wholesale affordable housing residential property fund is presented in Figure 14 below. This vehicle has a very similar structure to the unlisted wholesale residential property fund (see Figure 10) and involves several participants such as responsible entity, fund manager, sponsor, property manager and unit holders. Importantly, the unlisted wholesale affordable housing fund also involves the support from the government. Figure 14 discusses the structure for a vehicle investing in affordable housing, highlighting the interrelationships, roles and requirements of participants.

In general, the unlisted wholesale affordable housing fund has a very similar structure to the traditional unlisted wholesale residential property fund (see Section 6.1). The unlisted wholesale affordable housing fund pools capital from institutional investors to acquire affordable housing. To achieve a high scale of investment, a sponsor is required to form the affordable housing fund's pipeline of assets to be acquired. The sponsor would be a CHP, particularly a not-for-profit CHP such as St George Community Housing (SGCH) and Brisbane Housing Company. Importantly, these CHPs are the leaders in the affordable housing sector.

This strategy would allow the associations to transfer some of their high-quality affordable housing into the affordable housing fund. Hence the Affordable Housing Fund's housing portfolio would consist of a significant number of affordable housing. The portfolio is known as an affordable housing portfolio.

Figure 14: The structure of an unlisted wholesale affordable housing fund



A sale-and-leaseback arrangement is expected to be signed between the sponsor and the affordable housing fund, allowing the sponsor to manage the individual affordable housing. Importantly, private sector property managers would not have the same level of expertise as CHPs in managing affordable housing. They are expert at mitigating the risks involved in managing social and affordable housing tenancies, including the enforcement of standard Rental Tenancy Agreements through the tribunal. Hence, CHPs are expected to provide timely and professional management for the affordable housing fund. The sale-and-leaseback arrangement would also significantly reduce the tenancy risk of the affordable housing fund. Similar to the traditional fund, the sponsor will also maintain its ownership as co-investment in the affordable housing fund in response to it being a critical strategy to signal its quality and alleviate the concerns of agency issues. While some CHPs may not have the balance sheet to take as large a cornerstone co-investment as private or DHA sponsors, they would have the proceeds of the fund's purchase of the dwellings. In addition, a responsible entity should be established and an external reputable fund manager should be employed.

Like the traditional unlisted wholesale residential property fund, the unlisted wholesale affordable housing fund would employ a long-term 'buy and hold' strategy, but the unlisted wholesale affordable housing fund would also integrate environmental, social, governance (ESG) or ethical considerations into account; thereby the affordable housing fund would hold affordable housing in its portfolio. As demonstrated by Newell and Lee (2014), affordable housing would generate lower returns (a gap of 2.8%) compared with high-quality residential properties. Therefore, the support from the government is required. For instance, the government should continue to provide Commonwealth Rental Assistance support. This government support will provide a stable income stream and lower the risk of affordable housing investment. In addition, the government may consider providing a company tax exemption for the unlisted wholesale affordable housing fund if it distributes its earnings as distributions to its unit holders. This would assist to overcome the new markets risk premium, negative connotations of affordable housing, and make rental residential housing approach the stature of the other property asset classes. This could also enhance the dividend yield and bridge the return gap between affordable housing and high-quality properties.

Although affordable housing would offer lower returns compared with high-quality residential properties, the affordable housing fund may be promoted to institutional investors with a strong CSR mandate. CSR has taken on increased importance and stature in recent years. This has seen socially responsible investment (SRI) become an integral part of the investment markets, driven by customer pressure, changes in business practice, government legislation and pressure, SRI increased demand, changes in employee expectations, and evidence of poor corporate business practices/standards (Pryce 2002; Dawson 2004; Capaldi 2005; Roberts et al. 2007). An analysis of the top 100 superannuation funds in Australia also found that 24 of the top superannuation funds offered socially responsible options to their members (RIAA 2014). More recently, it has been reported that the majority of superannuation fund members are interested in environmental, social and governance (ESG) investing (Zwaan et al. 2015). This sees the opportunity of the affordable housing fund to be integrated in CSR institutional investors' portfolios.

However, CSR is only part of the marketing strategy for an affordable housing fund, where its underlying characteristics determine its investor attraction and its ability to deliver acceptable returns to investors. Given superannuation funds are seeking a good match for their long-term liabilities, long-term institutional investors may find affordable housing is an attractive asset class, given the fact that it is a secured, regulated market with a long-term income stream. More importantly, affordable housing has returns commensurate to its risk. As discussed earlier, the risk is lower with affordable housing due to the quality of the cash flow for lower income affordable dwellings which brings a government-backed flavour with Commonwealth Rent Assistance (that may be paid directly to the sponsor). The lower risk level of affordable housing is also consistent with the results from the financial analysis in Section 6.6.

Table 28 below compares the structures of the unlisted wholesale residential property fund and the unlisted wholesale Affordable Housing Fund. No significant difference is evident by comparing both models. The few exceptions are that the unlisted wholesale affordable housing fund integrates socially responsible investing into its investment strategy, in which affordable housing would be included in its housing portfolio. The affordable housing fund will be promoted to institutional investors with a strong CSR mandate in which the affordable housing fund should meet their CSR mandates, as well as delivering acceptable returns. In addition, the support from the government is also required in order to bridge the yield gap between affordable housing and high quality residential properties. Overall, the unlisted wholesale affordable housing fund has a strong CSR mandate in which it invests in affordable housing, although the structure is very similar to the traditional unlisted wholesale residential property fund.

Table 28: Unlisted wholesale residential property fund versus unlisted wholesale affordable housing fund

Participants	Unlisted wholesale residential property fund	Unlisted wholesale affordable housing fund
Fund	Wholesale residential property fund	Wholesale affordable housing fund
Fund manager	External manager with track record	External manager with track record
Responsible entity	Act on behalf of an investment scheme and unit holders	Act on behalf of an investment scheme and unit holders
Unit holders	Institutional investors	Institutional investors with a strong CSR mandate
Sponsor	Housing operators	CHPs with affordable housing portfolio
Management	Properties will be managed by housing operators via a sale-and-leaseback agreement	Properties will be managed by CHPs via a sale-and-leaseback agreement
Housing portfolio	High quality residential property	Affordable housing
Government support	Little support is required	Some credit support is required

Source: Authors' compilation

6.5 Assessment of the proposed unlisted wholesale affordable housing fund structure

This section assesses the benefits of the proposed unlisted wholesale affordable housing fund. It examines whether the affordable housing fund would successfully address several limitations of direct residential property investment as highlighted by Newell et al. (2015) in general, and whether the vehicle with the required desirable features of an effective residential investment vehicle addresses these limitations in particular.

6.5.1 Limitations of direct residential property investment

Numerous benefits are expected with the launch of an unlisted wholesale affordable housing fund, including:

Lack of professional property management

The affordable housing portfolio of the unlisted wholesale affordable housing fund will be managed by CHPs with track records in affordable housing management. The property manager would have a long history of managing affordable housing. The manager would be able to deal with all management issues in a timely and professional manner. This allows institutional investors to not have to be involved in direct management responsibility and addresses the burden of property management issues for residential property investment.

Small scale of investment

The affordable housing fund is a wholesale fund with high minimum investment requirements ($5 million). The feature of high minimum investment level meets the desirable scale of investment by institutional investors. Institutional investors, in general, prefer a large scale of investment. Therefore, it is reasonable to expect that the unlisted wholesale affordable housing fund should be able to achieve the desirable investment scale of institutional investors.

Lack of liquidity

The lack of liquidity in direct property investment can be partly addressed by the introduction of the unlisted wholesale affordable housing fund. Normally unlisted wholesale funds will be redeemed (if possible) on a quarterly basis; thereby limited liquidity can be provided to investors. As discussed earlier, the provided liquidity is sufficient for institutional investors. This notion was confirmed by the fact that Australian superannuation funds use unlisted wholesale property funds instead of the direct route to achieve their direct property exposure (Newell et al. 2015).

High transaction costs

High transaction costs that are normally involved in direct property investment can be reduced by the introduction of an unlisted wholesale affordable housing fund. The unlisted wholesale funds may only charge a reasonable entry fee of 0–4 per cent, as well as the standard annual management fee.

6.5.2 The desirable features of an effective investment vehicle

This section assesses the effectiveness of the unlisted wholesale affordable housing fund. The affordable housing fund will be managed by an experienced fund manager. Being wholesale, the fund is not listed on a stock exchange. The unit values of the fund are based on the valuation of the properties in the portfolio; hence the unit values do not change until properties are revalued and are not subject to stock market sentiments. Some debt financing will be employed. The low debt level of the fund will also reduce the fund's exposure to credit risk; thereby the volatility of the fund will be relatively low.

The fund has a strong CSR mandate, in which it will apply a prudent investment strategy to acquire affordable housing. In addition, the default risk could be mitigated by the sale-and-leaseback arrangement between the sponsor and the fund. This is also expected to provide a stable income yield to the fund's investors.

6.5.3 Conclusion

Table 29 below summarises the key features of the unlisted wholesale affordable housing fund.

Table 29: Key features of unlisted wholesale affordable housing fund

Key features	Assessment
Experienced fund managers	✓
A diversified portfolio by location	✓
Large scale of investment	✓
Stable income	✓
Low debt level	✓
Liquidity	✓**(limited)**
Low level of volatility	✓
Experienced property managers	✓
Enhancing affordable housing supply	✓
Individual investors	✗
Transaction costs	✓

Source: Authors' compilation

The effectiveness of the proposed unlisted wholesale residential property fund can be discussed in the following SWOT analysis.

Strengths

- → It addresses the limitations of direct property investment (e.g. management burden, large scale of investment, illiquidity and high transaction costs).
- → Numerous desirable characteristics are observed such as 'being managed by an experienced fund manager', 'providing stable income yield streams', 'a diversified portfolio by location', 'a large scale of investment' and 'low volatility'.
- → Low tenancy risk in which a long-term lease will be signed between the CHP (i.e. the sponsor) and the fund.
- → It is able to enhance the housing options of low- and moderate-income households.

Weaknesses

- → The fund returns are diluted by around 0.68 per cent as a result of management fees at the fund level.
- → Retail or individual investors are unlikely to participate in the fund.
- → A lower expected return is anticipated due to its strong CSR mandates.
- → Institutional investors without a CSR mandate may not consider this model.

Opportunities

- → The fund is expected to help establish a new asset class in affordable rental residential housing appealing to institutional investors with strong CSR mandates in residential property investment.

Threats

- → Rising interest rates and consequently lower housing affordability could put pressure on sale prices, leading to lower returns compared with other asset classes.
- → The potential risk of the reduction of government support in affordable housing may lead to lower returns.

Overall, the proposed unlisted wholesale affordable housing fund is the appropriate model to attract institutional investment in affordable housing. However, the support from institutional investors without a CSR mandate would be doubtful due to the fund only including affordable housing in its portfolio.

6.6 The performance of unlisted wholesale affordable housing fund

This section assesses the performance of the unlisted wholesale affordable housing fund based on a hypothetical affordable housing portfolio. Numerous AHURI studies have been devoted to examine the importance of affordable rental housing in meeting housing needs for low- and moderate-income households. However, little research has been done to examine the rates of return on affordable housing. This could be attributed to the lack of affordable data and the lesser stature of residential property, particularly affordable housing in Australia. Unlike Australia, IPD produces quarterly property performance benchmarks for Dutch social housing. Dataspring (2009) also estimated the rates of return in the housing association sector in England. The rates of return on private rental dwellings and affordable housing in both countries are presented in Table 30 below. In general, affordable housing underperformed private rental dwellings. Specifically, discount rates of 36 per cent to 42 per cent were evident for English and Dutch affordable housing respectively. In addition, an increase of the discount rate was also evident in England in recent years. Specifically, a discount rate of 42 per cent was evident in the financial year of 2007–08.

Table 30: Rates of return on affordable housing and private rental dwellings

Market	Netherlands (1999–2013)	England (98/99–07/08)
Affordable housing (A)	4.39%	4.22%
Private rental dwellings (P)	7.23%	6.62%
Gap (A–P)	-2.83%	-2.40%
Discount (A–P)/P	-42%	-36%

Source: Authors' calculation based on the data from DataSpring (2009) and IPD (2013)

Given no comparable affordable housing indices available for Australian affordable housing, the performance of private dwellings was adjusted in order to reflect the performance of Australian affordable housing. The affordable housing data from the Netherlands and UK was employed as a guide for the adjustment. Two adjustment rates were applied:

→ Case 1: adjustment rate of 0.42 (most likely)

→ Case 2: adjustment rate of 0.60 (pessimistic).

The hypothetical housing portfolio of the unlisted wholesale affordable housing fund was constructed based on the optimisation process in Section 5.5.2, in which it suggests that an efficient residential property portfolio should allocate 40 per cent of the total fund in Sydney, 20 per cent in Melbourne, 12 per cent in Brisbane, 17 per cent in Adelaide, 6 per cent in Perth and 5 per cent in Darwin.

6.6.1 Case 1

This section examines the performance of this hypothetical portfolio over 2010–14. The affordable housing return was estimated by applying an adjustment rate of 0.42. In other words, it is assumed that the affordable housing return was 42 per cent below the rate of return on private rental dwellings. The return and risk levels of the affordable portfolio are given in Table 31 below.

The average total return on the affordable housing fund was 4.36 per cent, significantly lower than the average return on private rental dwellings (7.93%). The risk level of affordable housing is also very low (2.46%). Concerning the risk-adjusted return, the affordable housing fund was ranked as the fourth best performing asset with a return-to-risk ratio of 1.77. The affordable housing fund outperformed two core assets (A-REITs and stocks), while it under-performed in direct property, bonds and cash. This also implies the potential role of affordable housing in a mixed-asset portfolio.

Table 31: The performance of unlisted wholesale affordable housing fund with adjustment rate of 0.42 and major assets

Asset	Annual return	Annual risk	Return-to-risk ratio (ranking)
The affordable housing fund (a=0.42)	*4.36%*	*2.46%*	*1.77 (4)*
A-REITs	9.38%	8.69%	1.08 (5)
Stocks	7.52%	12.96%	0.58 (6)
Bonds	4.19%	0.89%	4.71(2)
Cash	3.83%	0.95%	4.04 (3)
Direct commercial property	11.01%	1.56%	7.07 (1)

Source: Authors' compilation

To assess the link between the affordable housing portfolio and core assets, mixed-asset portfolios are constructed for:

- → Scenario 1: stocks, bonds, A-REITs, cash and direct commercial property.
- → Scenario 2: stocks, bonds, A-REITs, cash, direct commercial property and affordable housing (a=0.42).

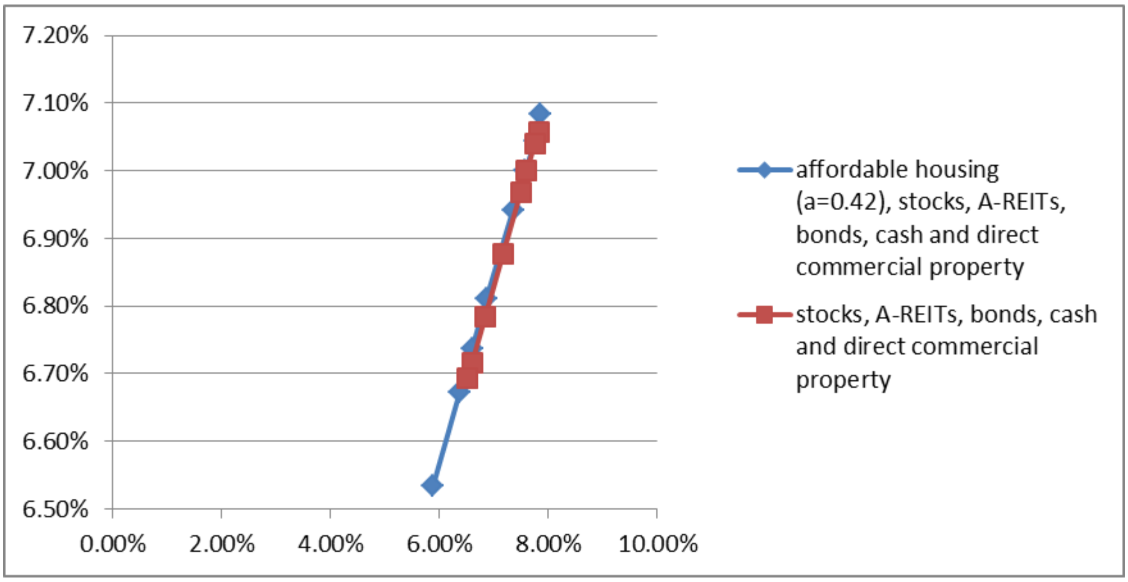
To assess whether the inclusion of the unlisted wholesale affordable housing fund in an institutional investor's portfolio would lead to any return enhancement or risk reduction, a constrained portfolio analysis is performed. The constraints or strategic allocations for each major asset are represented in Table 32.

Table 32: Asset allocation constraints

Assets	Scenario 1	Scenario 2
Stocks	Less than 60%	Less than 60%
Listed property (e.g. A-REITs)	Less than 4%	Less than 4%
Unlisted property (e.g. direct commercial property)	Less than 10%	Less than 10%
Bonds	Less than 20%	Less than 20%
Cash	Less than 15%	Less than 15%
Affordable housing (a=0.42)	0%	Less than 5%

Source: Authors' compilation

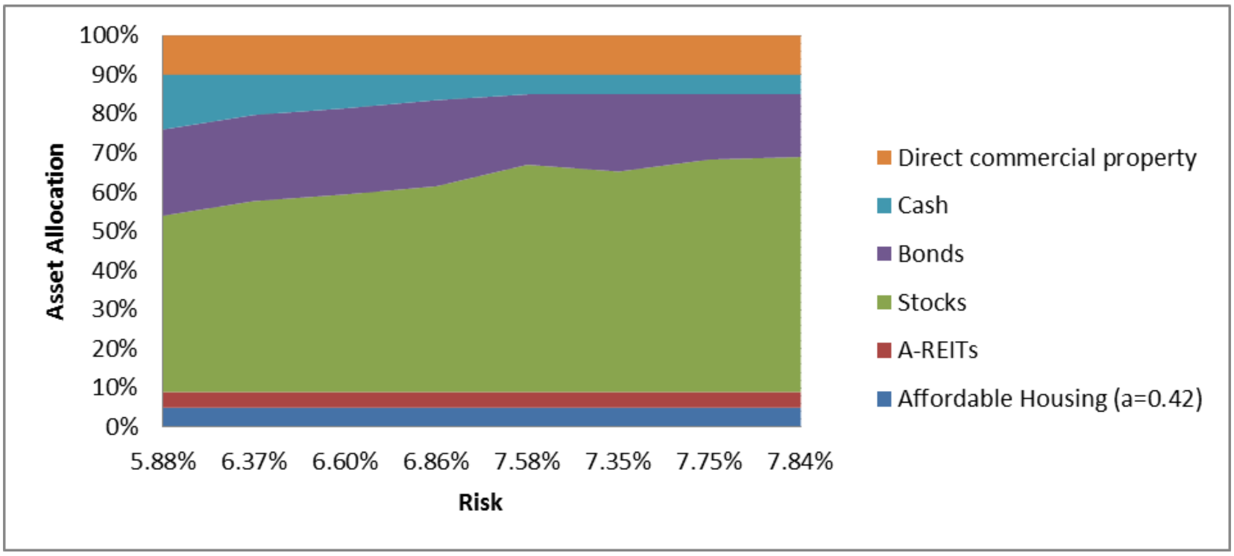
Figure 15: Efficient frontiers of unlisted wholesale affordable housing (a=0.42) fund and major assets



Source: Authors' compilation

Figure 15 above presents the efficient frontier for these two mixed-asset portfolio scenarios. The added value of including the affordable housing fund in the mixed-asset portfolio is only evident at low risk levels in the efficient frontiers for these two scenarios in Figure 15. Specifically, scenario 2 with the inclusion of the affordable housing fund is over a slightly reduced risk spectrum of 5.88 per cent to 7.84 per cent, due to the stronger performance at low risk by the affordable housing fund. A closer investigation has also further revealed that the portfolio with the inclusion of affordable housing (scenario 2) delivers a slightly lower risk level, at the same return level, compared with the portfolio without the affordable housing fund (scenario 1). For instance, at the return level of 7 per cent, the portfolio risk of scenario 2 (7.58%) is marginally lower than scenario 1 (7.6%). In addition, a marginally enhanced portfolio return was also evident for the portfolio with the unlisted affordable housing fund (scenario 2) (6.74%) compared with scenario 1 (6.72%) at the same risk level of 6.6 per cent. This confirms the role of the unlisted affordable housing fund in an investment portfolio. Specifically, neither inferior return nor higher risk has been presented for including the unlisted wholesale affordable housing fund in an institutional investor's portfolio. In fact, slight risk reduction and return enhancement are demonstrated. Therefore, the efficient frontiers for both scenarios are very comparable. This also presents a positive picture for superannuation funds for the inclusion of affordable housing; particularly in the lower risk space.

Figure 16: Asset allocation diagram of affordable housing (a=0.42) and major assets



Source: Authors' compilation

Figure 16 above presents the asset allocation diagram. When the unlisted wholesale affordable housing fund and major assets are considered (scenario 2), this sees the affordable housing fund playing a role over the full risk spectrum, with a level of 5 per cent (the maximum strategic allocation to this asset). This suggests that the affordable housing fund is an effective investment vehicle in a mixed-asset portfolio.

6.6.2 Case 2

This section examines the performance of this portfolio over 2010–14. The affordable housing return was estimated by applying an adjustment rate of 0.6 in which affordable housing returns are 60 per cent below the rate of return on private rental dwellings. The return and risk level of the affordable housing portfolio are given in Table 33 below.

The average total return on an affordable housing fund with an adjustment rate of 0.6 (case 2) was 3.08 per cent, significantly below the average return on private rental dwellings (see Table 33). The affordable housing fund was ranked as the fourth best performing asset with a return-to-risk ratio of 1.91. The affordable housing fund outperformed two core assets (A-REITs and stocks), while it under-performed direct property, bonds and cash.

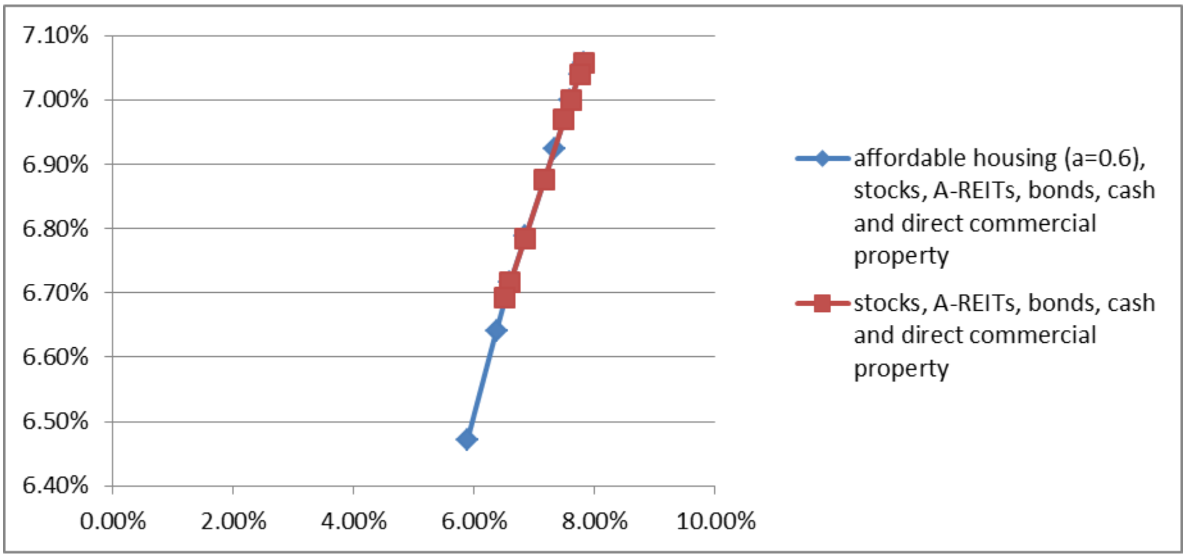
A constrained portfolio analysis is performed in order to assess the role of the unlisted wholesale affordable housing fund in an institutional investor's portfolio. Figure 17 below presents the efficient frontier for these two mixed-asset portfolio scenarios. The added value of including the affordable housing fund in the mixed-asset portfolio is only evident at low risk levels in the efficient frontiers for these two scenarios in Figure 17. Unfortunately, no evidence is available to support the argument of the portfolio with the inclusion of affordable housing (scenario 2) could significantly add value to the institutional investment portfolio.

Table 33: The performance of unlisted wholesale affordable housing fund with adjustment rate of 0.60 and major assets

Assets	Annual return	Annual risk	Return-to-risk ratio (ranking)
The affordable housing fund (a=0.6)	*3.08%*	*1.59%*	*1.93 (4)*
A-REITs	9.38%	8.69%	1.08 (5)
Stocks	7.52%	12.96%	0.58 (6)
Bonds	4.19%	0.89%	4.71(2)
Cash	3.83%	0.95%	4.04 (3)
Direct commercial property	11.01%	1.56%	7.07 (1)

Source: Authors' compilation

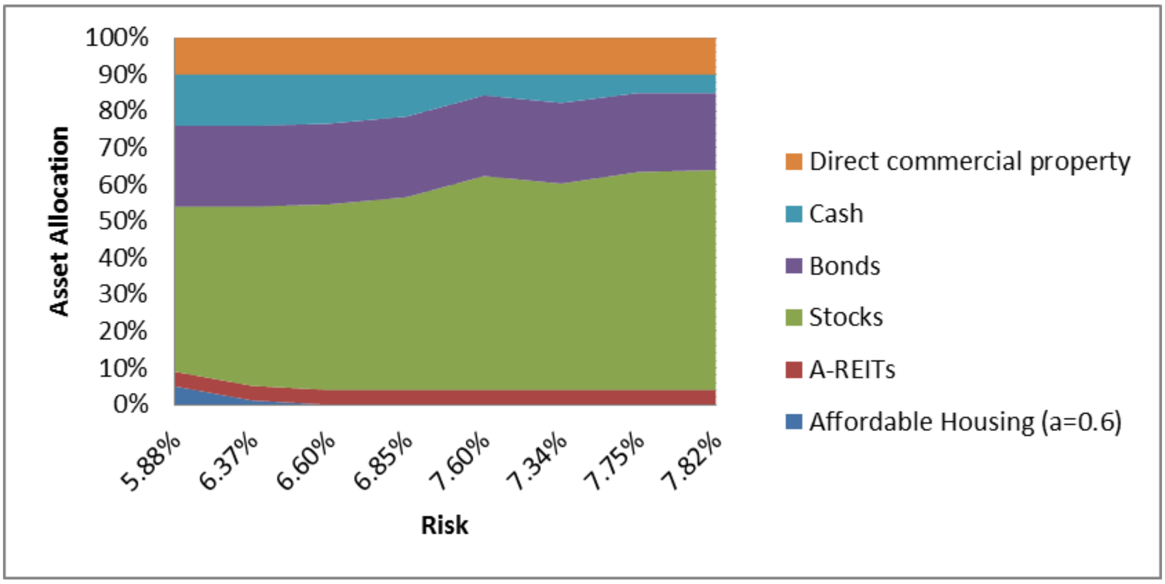
Figure 17: Efficient frontiers of affordable housing (a=0.60) and major assets



Source: Authors' compilation

Figure 18 below presents the asset allocation diagram (scenario 2). When the unlisted wholesale affordable housing fund and major assets are considered (scenario 2), this sees the affordable housing fund playing a role over the low risk spectrum, with levels of up to 5 per cent. At the medium and high risk levels, affordable housing with an adjustment rate of 0.6 does not get included in the portfolio, being replaced by a combination of various major assets. Results here are not consistent with the results of Case 1 and unlisted wholesale residential property (private rental dwellings). This suggests that the affordable housing fund with the adjustment rate of 0.60 is not as effective as the affordable housing fund with the adjustment rate of 0.42. The lesser role of affordable housing with the adjustment rate of 0.60 (pessimistic) in a mixed-asset portfolio compared with the adjustment rate of 0.42 is expected, as the return of affordable housing has been significantly discounted by 60 per cent. This also clearly highlights the importance of reliable information regarding affordable housing.

Figure 18: Asset allocation diagram of affordable housing (a=0.60) and major assets



Source: Authors' compilation

In line with the increasing popularity of CSR investment, an extra constraint regarding affordable housing allocation is introduced. The constraint of at least 1 per cent allocation in affordable housing in a mixed-asset portfolio is introduced. It examines whether the inclusion of 1 per cent in affordable housing will significantly reduce the portfolio return in a mixed-asset portfolio. The results are reported in Table 34 below.

No significant variation is found by comparing the portfolio return with and without the constraint of at least 1 per cent in the unlisted affordable housing fund. In other words, no evidence is available to support the view that the inclusion of affordable housing (adjustment rate of 0.6) will significantly reduce the portfolio return.

Overall, although affordable housing with an adjustment rate of 0.6 offers little risk reduction benefits (only at the low risk levels), the inclusion of the unlisted wholesale affordable housing fund (a=0.6) in an institutional investor's portfolio will not deteriorate the performance of the portfolio significantly. This further validates the inclusion of affordable housing in superannuation fund portfolios via this unlisted wholesale fund option.

Table 34: The portfolio return and risk with at least 1% allocation in unlisted wholesale affordable housing fund with an adjustment of 0.60

Portfolio risk	Portfolio without the constraint of at least 1% in unlisted affordable housing fund	Portfolio with the constraint of at least 1% in unlisted affordable housing fund	Difference
7.78%	7.06%	7.05%	0.01%
7.75%	7.04%	7.03%	0.01%
7.34%	6.92%	6.92%	0.00%
6.85%	6.79%	6.78%	0.01%
6.60%	6.72%	6.71%	0.01%
6.37%	6.64%	6.64%	0.00%
5.88%	6.47%	6.47%	0.00%

Source: Authors' compilation

6.7 Enabling strategies for future delivery

The above sections have highlighted the role of affordable housing in a superannuation fund's portfolio. Given the current low levels of housing and affordable housing in their portfolios, enabling strategies need to be identified to facilitate the inclusion of affordable housing in their portfolios. As such, several enabling strategies for the future delivery and investor acceptance/support of the unlisted wholesale residential property fund and the unlisted wholesale affordable housing fund are identified. To ensure the strategies are highly relevant and practical, the structure and key findings of the models were presented to key stakeholders. Their comments and feedback are incorporated via a consultation and engagement process with them. The key 'enabling strategies' include:

→ *Sponsorship*

  A sponsor is one of the key success factors. The ongoing support and commitment from the sponsor will be seen as one of the key considerations of institutional investors; hence the unlisted wholesale residential property fund should be sponsored by key housing operators with high quality portfolios. More importantly, the sponsor of a fund is also expected to retain a significant equity in the fund, and co-investment is required to enhance the confidence of institutional investors, with this being a critical strategy to signal the quality of the fund and alleviate the concerns of agency issues. Co-investment is a standard strategy to ensure this alignment of interest.

→ *Experienced fund managers*

  Selection of fund managers is also a key enabling strategy. A fund manager with an outstanding track record in property fund management would attract large-scale institutional investment. Institutional investors have a preference to invest in a fund that is managed by an experienced fund manager. Co-investment by the fund manager is also required to enhance the alignment of interest between the fund's shareholders and the external fund manager.

→ *CSR mandates*

  Promoting the unlisted wholesale affordable housing fund to institutional investors needs an effective marketing strategy, in which the socially responsible nature of the fund should be highlighted. In line with the growth of socially responsible investment(SRI) which has become an integral component of mainstream investing in recent years. This sees the opportunity of the fund in meeting the increased demand from CSR investors, such as superannuation funds.

→ *Ongoing support from government*

  The support from the government is required for the unlisted wholesale affordable housing fund. The government may consider providing a company tax exemption for this fund if it distributes its earnings as distributions to its unit holders. This is a similar tax transparent arrangement for A-REITs. Tax transparency has also been seen has a key driver for the growth of US REITs in the 1990s (Chan et al. 1998).

→ *Market information*

  Numerous organisations such as ABS and REIA produce quarterly performance benchmarks for residential property. RPData Corelogic even produces daily performance indices for Australian residential property. These indices not only improve the dearth of housing market information, but also allow investors to measure and benchmark the performance of their housing investments. However, no similar data has been collected for affordable housing; this sees the need for producing indices for affordable housing (similar to the IPD Netherlands social housing index). Therefore, the ongoing support from the housing industry in benchmarking the performance for residential property, particularly affordable housing, is essential.

→ *Active promotion of affordable housing funds to superannuation funds*

While superannuation funds in Australia have significant commercial property portfolios, the role of housing/affordable housing in their portfolios has been negligible. This needs to be increased and will require the active promotion of affordable housing in their portfolios. Therefore, the results of this AHURI Final Report should be linked to their increasing Corporate Social Responsibilities (CSR) agendas. Also, greater awareness of superannuation funds' knowledge of the international experience regarding housing and pension funds (e.g. UK, Europe) will be key elements in facilitating the promotion of the potential benefits and suitability of property investment vehicles for affordable housing in Australian superannuation fund portfolios. Positioning residential property (i.e. housing and affordable housing) within the overall property portfolio allocation, and determining the level of residential property versus office, retail and industrial property, will be a key strategic decision in the superannuation fund's decision-making and asset allocation process.

→ *Active promotion of affordable housing to major property fund managers*

While property fund managers in Australia have extensive experience in commercial property investment, their exposure to housing, and in particular affordable housing, needs to be increased. This will require the active promotion of housing/affordable housing by peak property bodies (e.g. Australian Property Institute, Property Council of Australia), as well as appealing to their CSR agendas. The empirical analysis and the unlisted wholesale affordable fund model developed in this AHURI report will also be key ingredients in this promotion process.

→ *A liquidity protocol*

The recommended open-ended structure is expected to provide some limited liquidity to investors by matching up with another institutional investor seeking to invest in the fund. Although the limited liquidity should be sufficient for long-term institutional investors, this open-ended fund structure can potentially be subject to severe liquidity problems (e.g. unexpected large redemptions when market conditions are not favourable). Therefore, the fund should consider introducing a liquidity protocol with a number of ad hoc solutions in order to deal with the unexpected redemption of units. These should include:

1. Requiring unit holders to provide a notice of their intention to dispose of units.
2. Introducing a redemption cap in a certain period (say 10% of net asset value in a year).
3. Redemption queues in which the fund manager could put redemption notices on a pro-rata or first-come-first-served basis.
4. The fund manager has been given the right to delay or stop redemptions, where this gives the fund management enough time to offer adequate liquidity by selling part of the fund's assets if necessary.
5. Hold some liquid assets such as cash, while the fund should not hold more than 20 per cent of their assets in cash.
6. Charging an exit fee (say 5%) to discourage frequent redemption transactions.

6.8 Summary

This chapter has clearly highlighted the opportunity of launching an unlisted wholesale residential property fund and an unlisted wholesale affordable housing fund. The main 'take-outs' are:

→ The introduction of unlisted wholesale residential property funds and the unlisted wholesale affordable housing funds overcome the limitations of direct property investment.

- → The funds comprise some desirable features, such as ‘being managed by experienced fund managers’, ‘producing stable income yields with low tenancy risk’, ‘offering diversification by location’, ‘providing a large-scale investment’ and ‘low volatility’.
- → These features should meet the appetite of institutional investors, suggesting that the unlisted models are effective investment models.
- → It is expected that affordable housing returns may not match the required rate of return of institutional investors; hence the unlisted wholesale residential property fund may not suit the appetite of institutional investors without a CSR mandate.
- → Unlike the unlisted wholesale residential property fund, the unlisted wholesale affordable housing fund is a fund with a strong CSR mandate in which it only invests in affordable housing.
- → The expected rate of return of the unlisted wholesale residential property fund is 7.93 per cent, while the expected return of the unlisted wholesale affordable housing fund are 4.36 per cent with an adjustment rate of 0.42 (case 1) and 3.08 per cent with an adjustment rate of 0.6 (case 2).
- → The constrained portfolio analysis has demonstrated the unlisted wholesale residential property fund’s return-enhancing ability and its risk-reducing facility, reflecting that the fund should be considered as a strategic asset in the institutional investors’ mixed-asset portfolio.
- → Mixed results are evident for the unlisted wholesale affordable housing fund. In case 1 with the adjustment rate of 0.42, the inclusion of the unlisted wholesale affordable housing fund would offer a marginal return enhancement and some risk diversification.
- → No comparable evidence is observed for case 2 when the adjustment rate of 0.6 is employed. This highlights the challenge of affordable housing investment. Nevertheless, no empirical evidence is available to support the view that the inclusion of the unlisted wholesale affordable housing fund with the adjustment rate of 0.6 (case 2) will significantly reduce the portfolio return. In fact, the unlisted wholesale affordable housing fund with the adjustment rate of 0.6 does feature (5%) at low risk levels in Australian superannuation fund portfolios. This suggests the opportunity to promote the unlisted wholesale affordable housing fund model to Australian superannuation funds with strong CSR mandates; with a range of enabling strategies identified.

7 CONCLUSION AND POLICY IMPLICATIONS

This chapter summarises the key findings and discusses the implications of the research findings for policy development in enhancing institutional investment in the private rental market, particularly affordable housing.

7.1 Summary of research findings

By using a strategic positioning analysis of residential property funds and our previous survey of Australian institutional investors regarding effective residential investment vehicles, the most effective and appropriate model, namely an unlisted wholesale property fund, is identified. The performance of the proposed unlisted wholesale property fund was also estimated by using a financial modelling analysis.

7.1.1 Unlisted wholesale property fund as an effective residential investment vehicle

Several important characteristics of an effective residential investment vehicle have been identified via the survey of Australian institutional investors. These characteristics were critically assessed and an effective strategy to achieve this product was identified. Unlisted wholesale property funds, unlike REITs, tend to be much less volatile and far more stable in their investment returns, with low debt levels and a significant level of total assets. In addition, a significant minimum investment is required (often more than $5 million) for unlisted wholesale property fund investment. These features are very consistent with the appetite of institutional investors such as superannuation funds, confirming that unlisted wholesale residential property funds are the most suitable model for attracting large-scale investment in residential property in Australia and particularly for affordable housing investment.

7.1.2 Australian residential property is an effective investment asset class

Australian residential property has been shown to deliver strong long-run risk-adjusted returns, as well as portfolio diversification benefits. Hence, residential property can be seen to be an effective investment asset, offering a range of attractive investment features sought by superannuation funds. Residential properties also offer steady income returns, with low volatility of income returns. Overall, Australian residential property presents a strong picture regarding the strategic contribution of residential property to investment portfolios in Australia.

7.1.3 The proposed unlisted wholesale residential property fund

An unlisted wholesale residential property fund is proposed for attracting institutional investment in residential property. The key features of the proposed unlisted wholesale residential property fund are high minimum investment, significant level of total assets, low gearing levels, low level of volatility, a high quality and diversified housing portfolio by location, being managed by reputable fund managers and property managers, stable income and low tenancy risk. Furthermore, the unlisted wholesale residential property fund model addresses some limitations of direct property investment, such as management burden, large scale of investment, illiquidity and high transaction costs. These investment features meet the appetite of institutional investors. The unlisted wholesale residential property model is also expected to enhance institutional investors' support and commitment in residential property investment. However, this model may not be the most appropriate to increase the housing options of low and moderate-income households, as the inclusion of affordable housing in its housing portfolio is not mandated.

7.1.4 The proposed unlisted wholesale affordable housing fund

To enhance the level of institutional investment in affordable housing, an unlisted wholesale affordable housing fund is proposed. The unlisted wholesale affordable housing fund has a very similar structure to the unlisted wholesale residential property fund, although the unlisted wholesale affordable housing fund has a strong CSR mandate to encourage superannuation funds to invest in affordable housing. The key features of the proposed unlisted wholesale affordable housing fund include high minimum investment, significant level of total assets, low gearing levels, low level of volatility, a diversified housing portfolio by location, being managed by reputable fund managers and property managers, stable income and low tenancy risk. Furthermore, the unlisted wholesale affordable housing funds overcome some limitations of direct property investment, such as management burden, large scale of investment, illiquidity and high transaction costs. These features meet the appetite of institutional investors with strong CSR mandates. The unlisted wholesale affordable housing funds are also expected to enhance the support and commitment of institutional investors with strong CSR mandates in affordable housing investment. However, a lower expected return is anticipated for the unlisted wholesale affordable housing fund due to its lower risk profile. Moreover, institutional investors without a CSR mandate may not consider this an effective model. Thus, government support in facilitating this affordable housing fund model may be required.

7.1.5 The role of an unlisted wholesale residential property fund in a mixed-asset portfolio

The performance analysis of the unlisted wholesale residential property fund indicates that the fund offered a return of 7.93 per cent with a risk level of 3.78 per cent over 2010–2015. Hence, it is an effective investment vehicle that offers a moderate risk-adjusted return, which is higher than that of stocks and A-REITs. An enhanced portfolio return is also observed by including the unlisted wholesale residential property fund in an institutional investor portfolio. This presents a very positive context for superannuation funds for the inclusion of residential property in their portfolios.

7.1.6 The role of an unlisted wholesale affordable housing fund in a mixed-asset portfolio

Two adjustment rates were applied (adjustment rate of 0.42 and 0.60) to reflect the performance of Australian affordable housing, in the light of no comparable affordable housing indices being available.. The adjustment rate of 0.42 (most likely rate) indicates that the risk-adjusted return for an affordable housing fund outperformed two core assets (A-REITs and stocks). When the unlisted wholesale affordable housing fund and major assets are considered in a mixed-asset portfolio, this sees the affordable housing fund (adjustment rate of 0.42) playing a role over the full portfolio risk spectrum, with an allocation level of 5 per cent.

When the adjustment rate of 0.60 (pessimistic) was applied, the average total return for the affordable housing fund was 3.08 per cent, which is significantly below the average return on private rental dwellings. No evidence is available to support the argument of the portfolio with the inclusion of affordable housing significantly adding value to the institutional investment portfolio over the full portfolio risk spectrum. The affordable housing fund only plays a role in the low-risk spectrum space. The lesser role of affordable housing with the adjustment rate of 0.60 in a mixed-asset portfolio clearly highlights the importance of reliable information regarding affordable housing to further examine its role in an Australian context.

7.1.7 Key enabling strategies for future delivery

Several key enabling strategies for the future delivery and investor acceptance/support for the unlisted wholesale residential property fund and the unlisted wholesale affordable housing fund are identified. These strategies include:

1. ongoing support and commitment from the sponsor (i.e. housing operators)
2. selection of a fund manager with an outstanding track record essential for industry confidence in residential property investment
3. promote and target effective promotion of the unlisted wholesale affordable housing fund to institutional investors with a strong CSR mandate

4. ensure ongoing government support
5. ensure ongoing support from the housing industry in benchmarking the performance for residential property
6. actively promote affordable housing funds to superannuation funds and major property fund managers
7. introduce a liquidity protocol.

7.2 Policy implications

The findings from this AHURI report have some far-reaching practical implications for policy-makers and stakeholders.

7.2.1 Reshaping the policy setting on taxation to encourage the development of the unlisted wholesale affordable housing fund

The unlisted wholesale affordable housing fund is the most effective model to enhance the supply of affordable housing due to its strong CSR mandate in affordable housing. Although the unlisted wholesale affordable housing fund offers a marginal return enhancement and some risk diversification benefits (based on the adjustment rate of 0.42), the lesser role of the unlisted wholesale affordable housing fund is also evident compared with the unlisted wholesale residential property fund. Therefore, re-shaping the policy setting on taxation to encourage the development of this affordable housing fund model is paramount.

Specifically, government support is required for the unlisted wholesale affordable housing fund. The government should consider providing a company tax exemption for the unlisted wholesale affordable housing fund (also known as tax transparency). This is a similar tax transparent arrangement for A-REITs. This could enhance the income yield and bridge the return gap between affordable housing and high-quality properties. Importantly, the tremendous growth of US REITs in the 1990s could be attributed to the introduction of tax transparency to US REITs (Chan et al. 1998). This alternative scheme for the unlisted wholesale affordable housing fund is critical and timely in light of the discontinuation of the NRAS (Round 5) in the 2014 Budget. In the absence of any credible alternative scheme to increase the supply of new affordable housing, this could lead to greater housing instability and homelessness.

7.2.2 Strategies to promote the unlisted wholesale affordable housing fund

The unlisted wholesale affordable housing fund is appealing to institutional investors such as superannuation funds with a CSR mandate. This highlights the importance of socially responsible investment (SRI) in facilitating the promotion of unlisted wholesale affordable housing funds. In recent years, SRI has become an integral part of the investment markets. 24 out of the top 100 Australian superannuation funds offer socially responsible investment options to their members (RIAA 2014). One of the key driving forces of SRI is government commitment (Pryce 2002; Dawson 2004). Therefore, the government should encourage SRI investment. CSR agencies such as the Australian Centre for Corporate Social Responsibility (ACCSR) also play a critical role to promote SRI in general and affordable housing investment in particular. These steps will facilitate the promotion of the potential benefits and suitable property investment vehicles for the ongoing role of affordable housing in Australian superannuation fund portfolios.

7.2.3 Ongoing support from the housing industry in benchmarking the performance for residential property, particularly affordable housing

The availability of reliable affordable housing information in Australia is a critical factor for building industry confidence in affordable housing investment. Investors, particularly institutional investors, need to be able to measure and benchmark the performance of their housing investments, while no reliable affordable housing index is currently available for affordable housing in Australia. This sees the need for producing indices for affordable housing (similar to the IPD Netherlands social housing index). Obviously, the ongoing support from CHPs and index providers is a prerequisite for the construction of an affordable housing index. To improve the dearth of affordable housing information, CHPs should share the performance of their affordable housing to an index provider (e.g. IPD). The index provider should also produce a timely and reliable affordable housing index. This index is not only essential for CHPs, but also for institutional investors to benchmark and measure the performance of their housing portfolios.

7.2.4 Long-term institutional investment is required across the full spectrum of residential property including affordable housing

A sustained new supply of private rental housing is essential to reduce housing stress among renters. Importantly, a lack of institutional investment in the private rental market has been described as a structural weakness (Berry 2000). Therefore, the government and property peak agencies should promote the use of the unlisted wholesale residential property fund as an effective vehicle for attracting large-scale institutional investment in the Australian private rental market.

To meet the needs of all renters, particularly low-income renters, an effective model (i.e. the unlisted wholesale affordable housing fund) for attracting long-term institutional investment in affordable housing is also critical to support the growth of affordable housing. Active promotion of the unlisted wholesale affordable housing fund to Australian institutional investors such as superannuation funds is required, with affordable housing seen as a key focus; particularly with the increasing CSR mandates of superannuation funds.

7.3 Key challenges

Despite this report having discussed the possibility of developing unlisted wholesale housing and affordable housing funds, a number of key challenges need to be addressed to achieve the commitment of all stakeholders, including government, investors, CHPs and superannuation funds, to effectively deliver the unlisted wholesale housing and affordable housing funds. These key challenges include:

→ *The CSR mandate itself is not sufficient to generate the affordable fund*

  Despite the socially responsible nature of the affordable fund being used as a key strategy to promote it, affordable fund managers should also acknowledge that the CSR agenda itself is not sufficient for promotion purposes. Although institutional investors, particularly those with a strong CSR mandate, may acknowledge and accept the fact that the expected return of affordable housing may not match that of other assets (i.e. high quality residential properties), the quality of the affordable housing portfolio, the fund effectiveness and property management, as well as other fund management issues, are also key considerations for institutional investors.

→ *The efficiency of CHPs*

  To bridge the return gap between affordable housing and high-quality properties, the need for a subsidy in the form of tax breaks (i.e. tax transparency) is recommended for the unlisted wholesale affordable housing fund. Nonetheless, some CHPs, who are the sponsors of the fund, may not be efficient in managing affordable properties. This may create the wrong incentives without strong penalties/rewards for subsequent management performance of these funds. To tackle this issue, the government and policy-makers should also consider introducing some management performance indicators for CHPs in order to receive the tax exemption. However, on the other hand, this may also create micro-management and unnecessary red-tape procedures.

→ *A liquidity protocol for an open-ended residential property fund may not fully alleviate the liquidity issue during a crisis period*

To avoid the severe liquidity problems such as unexpected large redemptions at the same time, a liquidity protocol has been recommended. Nevertheless, this may not necessarily fully address or prevent a severe liquidity problem, particularly during a crisis period. For instance, in the US, during the GFC, many funds instituted redemption queues for a period of time (e.g. one to three years for the better financed funds), while weaker financed funds ultimately transitioned to wind-down. Nonetheless, many assets may have the same liquidity problem (or have strong selling pressure) during a crisis period. This also highlights the potential liquidity risk of the fund, particularly during a crisis period.

→ *Sponsors and the availability of housing supply*

A sponsor-linked fund is recommended in order to form the fund's pipeline of assets to be acquired. The sponsor-linked fund is in a more favourable position to embark on strategic growth through acquisitions, in which the fund would be able to avoid acquiring properties aggressively from the competitive market. However, to grow the fund, it may need to source additional housing stock through property development. Therefore, the most likely route for long-term growth of the sponsor-linked housing funds is sourcing housing stock from builders by committing off-plan to ensure scale and management efficiencies at a fixed price. However, this strategy involves significant costs; thereby the fund needs to raise capital for financing these development projects. In addition, this involves greater operation risk that may not be consistent with the suggested low-risk profile of the fund.

→ *Sponsor-linked affordable housing fund and the government commitment*

To ensure the unlisted wholesale affordable housing fund consists of a significant number of affordable housing, the sponsorship from a CHP is expected. Nevertheless, not all CHPs own affordable residential properties. In fact, some CHPs only manage the affordable housing (management outsourcing) in their portfolios. Hence, support from the government is also required to develop a sponsor-linked affordable housing fund. Specifically, the government should consider either to: (1) provide the affordable housing fund's pipeline of assets to be acquired (as a sponsor) or (2) transfer a large amount of the ownership of affordable housing or public housing to CHPs for affordable housing use. The latter strategy would also maximise the scope for CHP entrepreneurialism, innovation and build capacity to manage assets (Pawson et al. 2013). This also allows CHPs to use transferred housing assets for capital raising purposes in order to generate new affordable housing supply.

→ *Quarterly valuation of housing and affordable housing*

To improve valuation transparency, quarterly independent valuations are required. An enhanced valuation transparency of housing and affordable housing portfolios are critical for fund managers to determinate the net asset value of the fund and the fair redemption price of the fund. It is also expected to build the confidence of institutional investors in the fund. However, timely and frequent valuations will also increase the operation cost of the fund. Obviously, this has a greater impact on the affordable housing fund. Given the fact that this fund may offer a lower return, the higher operation cost of the fund may further dilute its earnings. A rolling valuation schedule may also be considered for more up-to-date valuations on the property portfolio.

7.4 Summary

Overall, this AHURI report has clearly highlighted the challenges and opportunities for housing and affordable housing to be structured into an effective property investment vehicle that would be attractive to superannuation funds in Australia; particularly those with a strong CSR mandate. An unlisted wholesale residential property fund was identified as the most suitable investment vehicle; able to be extended to an unlisted wholesale affordable housing fund to accommodate affordable housing in their portfolios.

While a number of key challenges remain and need to be addressed in the policy implementation area, commitment and buy-in at all level of stakeholders including government, investors, CHPs and superannuation funds should see the effective delivery of a high quality and effective property investment vehicle to address the style of investment needed for housing and affordable housing in institutional portfolios in Australia. Addressing these key challenges and opportunities should see the effective delivery of an enhanced affordable housing supply via a high quality property investment vehicle that is currently not available in Australia, to the significant benefit of the affordable housing sector in Australia. While key challenges remain, this presents an excellent opportunity to use this unlisted wholesale affordable housing fund as an effective property investment vehicle to address the needs of affordable housing in the institutional investment sector in Australia.

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