

HOME EQUITY RELEASE: CHALLENGES AND OPPORTUNITIES

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Prepared for the Australian Centre for Financial Studies
November 2016

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We thank Darcy Allen, Aaron Soans and Stamatios Tsigos for their assistance in preparing this document.

Executive summary

The only sensible way to approach solving this intergenerational problem is to look at superannuation, pensions, housing, welfare, and the tax system all together.

– David Murray (2015)

Sound retirement planning is necessary to achieve a comfortable standard of living in retirement, yet many Australians have inadequate retirement savings. Although the superannuation system continues to build balances as it matures, managing longevity risk – the risk of outliving retirement savings – presents a growing challenge for Australian households, businesses, and governments.

Innovative financial products will be necessary to address these retirement income challenges. Many households, while short on retirement savings, have substantial wealth tied up in the family home. For these households, accessing the equity in their home could be a viable, even desirable, way to supplement retirement savings. Releasing home equity could increase standards of living in retirement, provide secure investment returns for the private sector, reduce further dependence on government support, and allow retirees to ‘age in place’ – a widely desired option.

Australia’s home equity release market, which for the purposes of this paper is taken to include reverse mortgages, home reversion schemes and variations on them, is very small, largely due to financial and social factors. A major conclusion we draw from our research is that both **current and future retirees** appear **largely unaware** of or uncertain about the possible relevance of these options for their retirement.

The lack of understanding and familiarity with the suite of retirement income products available shows there is a need for greater education.

This research aims to identify challenges and opportunities in developing markets for financial products that could give retirees access to their home equity in retirement. Home equity release could represent a fourth pillar of retirement funding, one that has the potential to enable retirees to live a more comfortable life aligned with their preferences.

In this report we address the question, why is the market so small? In examining this question, we assess different aspects of the market. Our findings include:

- The risk character of home equity release products complements existing financial retirement products. This suggests there is a gap in the market that could be filled by a deeper and more efficient home equity release industry, which would enable retirees to secure better lifestyle outcomes.
- Recent changes in the reverse mortgage market can be seen as a setback rather than a move forward.
- We note there are a number of risks that suppliers incur, which could explain why this market remains small.
- We also conducted a stylised example comparing these risks. We find that the lender’s risk profile is linked to the loan-to-valuation ratio (LVR). All things being equal, our research indicates that lenders’ risk is lower, and expected cash flow higher, from a reverse mortgage when the LVR is lower than 50 per cent. In contrast, when LVR exceeds 50 per cent, home reversion products may yield lower risk and a higher

expected return. This is the direct consequence of the so-called ‘no–negative equity guarantee’ feature of reverse mortgages.

- We note that there are a number of demand-side stimulators, but these stimulators are impeded by a number of factors we label ‘inhibitors’. It is these factors that we strongly recommend should be addressed by the Australian policy community, together with current and potential providers. Inhibitors include:

Consumer confidence

Reverse mortgages have garnered much bad press in the United States and elsewhere. The open-ended nature of accumulated debt under early versions of reverse mortgages and the consequences for some early adopters have not served the market well. Retirees are (understandably) cautious about these products, despite new rules regarding non-borrowing spouses, borrower financial assessments and no–negative equity provisions.

Homes not houses

There is evidence to suggest that retirees may view their houses as family homes to be bequeathed, and as a store of precautionary wealth, rather than as assets to be liquefied to provide sufficient income throughout retirement. These attitudes appear to be changing for more recent retiree cohorts, and this is central to development of market size.

Financial literacy

Financial literacy is a major barrier to the further development of the market. Retirees seem to be unaware and hence unconcerned about their lack of income in retirement.

We conclude our report by making a **set of broad recommendations**, including:

- There should be an **education package** aimed at the broader community regarding home equity release products that explains their features and their risks. This educational effort should not be limited to retirees. A major challenge in getting the message across is that many retirees do not consult widely when making retirement decisions. In addition, the children of retirees often have an important voice when decisions are made about the family home.
- Noting **the desire to ‘age in place’**, the apparent shortfall in living standards (acknowledged by retirees), as well as the home being a form of precautionary savings, more needs to be done to allay fears and concerns of current and future retirees. This could take the form of more sophisticated retirement packages – for example, bundling home equity release options with retirement care options as well as bequest arrangements. If such products existed, they could significantly reduce the perceived demand-side risk. Insurance packages could also be a major component of such a bundle. A form of government guarantee might also be appropriate.
- **Regulatory authorities must remain open to innovative products** in the retirement income market. Further, the uncertainty plaguing various aspects of the retirement markets must be addressed. In particular changes to taxation of superannuation and means testing of pension qualifications must be more coherent and less ad hoc. We suggest recent changes to the taxation of superannuation, as well as discussions relating to qualifying for the age pension, have led to a sense of confusion and lack of certainty that discourages households from considering retirement planning.

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Introduction

The perception of the family home as a sacrosanct source of financial security and a cornerstone of inheritance plans appears to be shifting, and there is an increasing tendency to view it as an investment that can be used for consumption purposes (Burns 2012).

The key question we address in this report is, why does the home equity release market remain so small?

This question is particularly important given the ageing population, increasing demands on state funding, and an increasing desire of older Australians to ‘age in place’. We posit that a deeper home equity release market would provide the means for some retirees to ‘age in place’, as well as placing less demand on state finances.

Home equity release products provide the means to insure against various forms of risks that manifest in peculiar ways in retirement. Indeed, they may be considered as a fourth pillar of retirement (Brownfield 2014). In the next section, we compare and contrast how this fourth pillar relates to superannuation (pillar 1) and the age pension (pillar 2). We note that the third pillar, savings, closely corresponds to the first pillar, and thus for the sake of brevity we do not differentiate between these sources of retirement funds.

Insuring against risk: a retiree’s perspective

In this section we assess how a retiree might insure against a typical set of retirement risks. We find that reverse mortgages and home equity reversions complement the existing retirement product pool. We refer to these as fourth-pillar products throughout this report. Our assessment supports the view that a viable and efficient fourth-pillar market is desirable.

Description of options

In making our assessment, we make a number of descriptive assumptions:

- **Super: lump sum drawdown** – the retiree assumes sole discretion of all superannuation funds, including where they might spend them such as securing accommodation, travel, or debt reduction.¹
- **Super: allocated pension** – the retiree enters into an arrangement where regular cash flows are received based on an investment. Note, this may represent a whole or part of the individual’s total superannuation balance. Importantly, the arrangements are such that the retiree does not have discretionary access to the entire lump sum.
- **Age pension** – the retiree qualifies for the government age pension and receives fortnightly cash flows.
- **Lifetime annuities** – the retiree purchases a product that provides a regular income stream for their lifetime.

¹ We note that one of the key recommendations of the Murray financial inquiry was to abolish lump sum drawdowns in favour of a pension structure. See also <http://www.smh.com.au/money boomers-blowing-their-super-to-pay-down-large-debts-20121002-26xek.html>

- **Reverse mortgage** – the retiree mortgages a part of their primary residence, and receives a lump sum that accumulates interest over the duration of occupation. Upon sale, the provider is entitled to the amount borrowed and the interest accrued.
- **Home reversion schemes** – these products are not well understood. Typically a proportion (for example 50 per cent) of the future value of the home is sold to the provider. The homeowner receives a discounted sum that might range from 35 per cent to 65 per cent of the future value (depending on life expectancy, current interest rates, and so on). No repayments are made by the homeowner while they remain in the home. When the home is sold, the agreed portion of the proceeds goes to the scheme provider.

These descriptions help to demonstrate how retirees use these retirement income products. In the table below, we use three colours to identify whether a product can provide the means to insure against various forms of risk that typically occur in retirement. We use red to denote 'likely to be subject to the stated risk', amber to denote 'possibly' and green to denote 'unlikely'.

Table 1: Risk mitigation

Risk factor	Pillar 1		Pillar 2	Option	Pillar 4	
	Super: lump-sum drawdown	Super: allocated pension	Age pension	Lifetime annuities	Reverse mortgage	Home reversion schemes
Contingency risk: unexpected expenses are incurred	Amber	Amber	Red	Red	Green	Green
Longevity risk: living longer than expected	Red	Amber	Green	Green	Amber	Green
Regulatory risk: the risk of government policy changes	Amber	Amber	Red	Amber	Amber	Amber
Replacement risk: income stream is insufficient	Red	Amber	Red	Amber	Amber	Amber
Investment risk: income streams are volatile – sensitive to market returns	Red	Amber	Green	Green	Amber	Amber
Inflation risk: erosion of purchasing power	Red	Green	Green	Amber	Amber	Amber

Colour key: red = likely, amber = possible, and green = unlikely.

Source: Authors

Unexpected expenses (such as medical costs) can be a major concern for retirees, especially given that the public healthcare system can be less than ideal, and even people with private health insurance can face significant out-of-pocket expenses. Costs can escalate quickly, beyond the amounts received in pre-arranged income streams.

In these situations, a fourth-pillar product may facilitate easier access to liquidity, particularly if 'precautionary savings' in housing equity can be accessed via a line of credit. The ability to access a lump sum to deal with contingencies without needing a substantial income source to repay debt is one of the key benefits of the fourth-pillar products. We note that the capacity of both allocated and lump super to address unexpected expenses in retirement will depend on the size of the initial balances.

Australians are healthier and living longer than they ever have done before. This means that optimising cash flow over the expected lifetime has become increasingly challenging. Age

pensions as well as lifetime annuities generally provide some insurance against 'living longer than anticipated and running out of money'.²

Lifetime annuities deliver the best results to consumers if they live longer than actuarial tables predict. Managing a lump sum drawdown over an uncertain lifetime is a challenge, and the duration of allocated pensions depends on a range of uncertain factors such as investment returns over the period.

Home reversion schemes provide a form of insurance because the retiree is likely to be ahead in financial terms if they live longer than the provider expects (as with lifetime annuities). Home reversion schemes also give real benefit if the retiree lives longer than expected because the lump sum received is the present value of a percentage of the home discounted for future rent (that is, the provider takes on the longevity risk and estimates when you are likely to terminate the property and the implied lifetime lease).

With reverse mortgages, the consumer bears some of the longevity risk up to maximum value of the house, at which point the no-negative equity guarantee will offset any further accumulated debt.

The Australian retirement planning system in recent years has been subject to uncertainty, with a series of changes and more expected.

Recent announcements by the Commonwealth Government about the age pension suggest a considerable amount of regulatory risk is attached to certain retirement income products.

Conversely, reverse mortgages and home equity reversion schemes represent a class of products that are subject to separate regulation in the financial system (by the Australian Prudential Regulation Authority and the Australian Securities and Investments Commission) outside the current retirement savings system.

Recommendations from the Murray inquiry into the financial system and reports from the Productivity Commission suggest that regulatory change is likely to encourage the market to provide these types of products. These changes could include eligibility for the age pension being dependent on the equity value in the primary place of residence.

We note lifetime annuities are also likely to insure against regulatory risk to some degree and for similar reasons, but may indirectly influence pension entitlements, depending on the way annuity income streams are treated.

Replacement risk and investment risk are similar concepts which both relate to inadequate income streams. Lifetime annuities are a valuable means to secure against this form of risk, as they are not affected (in the retiree's hands) by sharemarket returns or interest rates.

The fourth pillar may also provide an extra buffer – but this depends on the market value of the property, and therefore may also be influenced by the same factors affecting investment-related income flows. Lump-sum drawdowns are unlikely to provide an adequate level of insurance, whereas the different pension products are subject to market returns.

² The age pension is in essence a publicly provided lifetime annuity – if you run out of money, the government will provide the pension, which is why the market for privately funded annuities is so small (unless you want to top up the pension, in which case you need to meet eligibility requirements).

Purchasing power is a major determinant of life quality. Products that insure against inflation are indexed-linked cash flows such as the age pension and life-time annuities (that are linked to the consumer price index). As reverse mortgage products are debt-based, the effect of inflation on the financial position of the retiree will depend on the relative differences in nominal interest rates, dwelling appreciation and how these are incorporated into the product design and contracts.

A note on downsizing

While not the main subject of this paper, downsizing is another means of releasing home equity that is often discussed in this context and is worth some brief discussion here.

Any decision to downsize – that is, sell the family home to buy a smaller one, releasing any difference in sale to purchase proceeds – must take into account older people’s housing decisions, which is an area where there is a real need for more research (Judd, Bridge, Davy, Adams and Liu 2012).

Generally, retirees do not tend to view downsizing as a favourable option. For example, Olsberg and Winters (2005) find that only around one in 10 homeowners aged 50 years and over will extract housing equity by downsizing. Within that 10 per cent, outright owners are more likely to downsize than mortgagors. This is consistent with recent findings of the Productivity Commission (2015a), which concludes that most retirees do not downsize during their retirement.

There are a number of reasons why downsizing may not be an effective means to release equity:

- **Smaller properties are not always cheaper.** The amount of money accessed by downsizing is typically relatively small, especially taking into account transaction costs (Sinclair, Boymal and de Silva 2014³), and in addition, a downsize in terms of ‘quantity’ could easily be offset with an up step in ‘quality’.
- **Supply of smaller properties is limited.** This limits the ability of retirees to downsize irrespective of their intentions to do so. For example, Boymal, de Silva and Liu (2013) show that the majority of houses sold in 2010 were three-bedroom houses, whereas only 20 per cent of housing stock sold in the same period had two (or fewer) bedrooms. Further, as a population ages, there will be added demand in the market for smaller properties. If this demand is unmatched by supply, price rises will most likely offset the amount of home equity accessible.
- **Moving is a stressful life experience,** and older people may be reluctant to do so for this reason (Easthope 2004).
- **Impacts on the age pension.** Converting the family home into cash could impact age pension entitlements. This is an example of the regulatory environment having unintended or unanticipated affects on retirees’ decisions.

³ In this paper a number of housing characteristics including bedrooms are priced. The estimates illustrate that the amount of cash, at the margin (all things being equal), is limited. Further, by changing house character (including location), any potential gain could be substantially offset.

Box A: Case study: Downsizing versus reverse mortgage

Frank and Julie have just retired. They have a three-bedroom house valued just below Melbourne's median house price of \$650,000.

Downsizing

According to Sinclair et al. (2014), if Frank and Julie were to downsize to the same house with one less bedroom it could yield approximately \$100,000. This does not take into account moving expenses (stamp duty, legal costs, agent commissions). Further, it assumes that Frank and Julie are not choosing to upgrade in quality – for example a house that is better located (closer to local amenities) or better build quality (recently renovated).

Reverse mortgage

A reverse mortgage may release up to \$325,000. It would enable them to remain in the same homes, but it does mean that their bequest to their children is substantially lower.

Summary – an extra layer of insurance

This short assessment demonstrates that reverse mortgages and home equity release products can provide an extra layer of insurance.

This is particular the case for 'contingency risk', where it seems to provide a form of insurance that is unavailable using traditional products.

Our assessment shows that we need to understand the factors that may be impeding growth in this market so that appropriate policy changes can improve the choice available to Australia's current and future retirees.

A snapshot of recent developments in the market

Understanding recent developments in the home equity release market is fundamental if effective policy changes are to be implemented. In this section we provide a brief overview of the major developments. We conclude that although the market has developed there is still considerable scope for growth. Importantly, we focus predominantly on the reverse mortgage market due to its relative size.

Reverse mortgage overview

The reverse mortgage was the first product to provide a means to liquefy equity in the family home. A series of studies has evaluated the efficacy of these products.

One of the most in-depth reviews of the reverse mortgage market was by Bridge, Adams, Matthews and Kiendig (2010) in partnership with Senior Australians Equity Release (SEQUAL), the peak body for the equity release industry. The authors interview retirees and financial advisors about various aspects of the market to examine factors influencing consumer knowledge, understanding, and demand for equity release.

In this section we draw partially on their report to identify the key issues observed in the Australian home equity release market in 2010. We reproduce and comment on a number of their recommendations to assess how the market has developed in the subsequent five years, and whether those recommendations were implemented, to answer the question: is the reverse mortgage market developing?

The first recommendation from Bridge et al. (2010) is

Continuing to support the reverse mortgage Helpline currently provided by the NICRI (Recommendation A, Bridge et al. 2010, p. 45).

This Helpline service is no longer available. As of 27 February 2014, the National Information Centre on Retirement Investments (NICRI) – the centre responsible for providing information on equity release – ceased to operate.

Requiring solicitors and other professionals who give advice on reverse mortgage products to undertake specific training in that area and charge a standard fee for providing this advice (Recommendation C, Bridge et al. 2010, p. 45).

Developing a standard reverse mortgage contract which all accredited lenders would use (Recommendation F, Bridge et al. 2010, p. 45).

SEQUAL offers courses for market practitioners, including brokers, planners, accountants and legal advisers. This provides a basis for standards of practice in the industry. SEQUAL also provides guidelines for written contracts. Members are required to adhere to codes of conduct and consumer protection principles. Note that not all equity release product providers are members of SEQUAL. Provision of up-to-date information remains an ongoing issue.

Making financial advice mandatory (Recommendation E, Bridge et al. 2010, p. 45).

The legal practitioners' liability committee provides a key risk checklist relating to advice on equity release. Further, legal advice is recommended under SEQUAL's code of conduct.

Requiring all lenders to provide an on-line calculator that gives true comparison rates for consumers (Recommendation G, Bridge et al. 2010, p. 45).

A reverse mortgage information statement is a Commonwealth Government requirement under the *National Consumer Credit Protection Act 2009*. ASIC's Moneysmart website – which is a key component of the National Financial Literacy Strategy – provides detailed information and advice on reverse mortgages. It also includes a reverse mortgage calculator. The industry body SEQUAL is referred to, and this adds credibility to providers who are members of this recognised industry body. SEQUAL's mission statement reflects the importance of having a recognised source of industry information.⁴

While there are a number of existing products, there is room for further development of products with additional flexibility and new features (Recommendation B, Bridge et al. 2010, p. 3).

The number of lenders and potentially the range of products has recently (2009–10) diminished due to the global finance crisis (GFC) and this has reduced consumer choice (Recommendation A, Bridge et al. 2010, page 4).

⁴ To 'Advocate a dignified and secure retirement for all Australian home owners', 'Promote an understanding of senior's equity release to consumers and other stakeholders', and 'Ensure members adhere to SEQUAL's 'Consumer Protection Principles' to foster consumer confidence'.

Table 2 identifies a snapshot of equity release providers advertising in the market. As of 8 August 2016, it appears there have been some new entrants with additional products in the Australian market.

Table 2: List of products currently advertised in the market. Blank cells indicate information was not readily available

Company	Product name	Interest rate (July 2016)	Loans offered \$	Maximum LVR
Bank of Melbourne	Senior access home loan	6.35%	10,000–250,000	25% - Age 63
Bank SA	Senior access home loan	6.52%	10,000–250,000	15% - Age 65 20% - Age 70 25% - Age 80
Bankwest	Senior equity release	6.5%	20,000–2,500,000	25%
St George	Senior access home loan	6.54%	10,000–250,000	25%
Commonwealth Bank	Equity unlock loan	6.6%	20,000–425,000	20% - Age 65 25% - Age 70 40% - Age 80
Heartland Seniors Finance (previously Australian Seniors Finance)	Lifetime loan	6.5%	10,000–1,000,000	Up to 45% - Age 90
Heritage Bank	Australian Seniors Finance (ASF) lifetime loan	7.2%	10,000–NS	Up to 45%
Macquarie Bank	Reverse mortgage home loan	6.20%	20,000–1,000,000	20% -70 years The LVR increases 2% per year of age up to 75 years after which it increases 1% per year of age to a maximum LVR of 45% for borrowers aged 90 years or older.
Macquarie Bank – fixed loan five years	Macquarie Bank accommodation bond loan	6.55%	20,000–1,000,000	35%
Homestart (SA Government)	Senior equity loan	6.04%		10% - Age 60 35% - Age 85
Transcomm Credit union	Annuity plus	6.59%	250,000–400,000	
Transcomm Credit union	Accommodation bond	6.39%	250,000–400,000	
Centuria Capital Limited	Over 50 seniors equity release – fixed for life reverse mortgages (<i>These may no longer be offered in the market</i>)			
P&N Bank	Easy living home loan	6.34%		25%
Centrelink	Pensions loans scheme	5.25%		

Source: Canstar / Finder.com.au / infochoice.com.

* *SEQUAL members are in bold.*

Falling valuations of many residential properties meant that some borrowers risked reaching a negative equity situation sooner than had been anticipated if housing values continued to fall, which would have implications for lenders with respect to no-negative equity guarantee (NNEG). Lower valuations also have the effect of excluding some potential borrowers from accessing a reverse mortgage loan if they needed one (Recommendation D, Bridge et al. 2010, p. 4).

We note that statutory no-negative equity protection was introduced in 2012 for all new reverse mortgage contracts in Australia. This means, as we demonstrate below, that if providers wish to provide loans with a higher LVR, then home equity release is likely to be more profitable than a reverse mortgage.

Our overview demonstrates that the market is still immature and characterised by a relatively small number of providers. Further, recommendations made several years ago have either been discounted or ignored. We particularly note the need for more products with different features – something we take up below.

In summary, we conclude that the reverse mortgage market is developing, but rather slowly. Faster market growth will only likely be achieved if the current policy settings provide a conducive and accommodating environment.

In the following section we provide a number of recommendations relating to these policy settings.

Box B: Centrelink Pension Loans Scheme – A government originated reverse mortgage

The Pension Loans Scheme (PLS) is a form of reverse mortgage offered by the government to eligible candidates. In this box we provide a brief overview of a product that does not seem to be well-known.

While the scheme does offer a more favourable interest rate compared with private providers, it also has more restrictions.

The scheme is only available to candidates if:

- they are of age pension age*
- they have equity in real estate to be used as security for the loan*
- they receive a reduced, or nil, rate of a qualifying payment for the scheme due to the application of either the income or assets test, but not both*
- they meet age pension residence requirements.*

Only retirees with income or assets that exceed the threshold for the full pension rate are able to qualify for this scheme to top up their payments up to the maximum pension rate.

Less affluent retirees who receive the full pension rate and who may be in the most need of additional retirement income are unable to use this scheme to access their home equity.

As a result the scheme has received criticism for disproportionately favouring wealthier retirees.⁵

⁵ Denniss R and Swann T 2014, *Boosting retirement incomes the easy way: extending the Pension Loan Scheme to all retirees*, Technical Brief no. 34, The Australia Institute.

Expanding eligibility for the PLS could enhance retirement income in a cost-effective way. If the PLS were made available to all retirees of pension age, it would allow many retirees, especially low-income ones, to supplement their pension income and enhance their quality of life.

The cost to the government would likely be negligible. Capital costs could be covered by charging an appropriate interest rate, currently 5.25 per cent, and pegging it to the 10-year Treasury bond rate.

Administrative costs could be charged up front or rolled into the loan amount. As Centrelink already has a payment infrastructure in place, the marginal cost of additional payments will likely be low.

The risk of default is mitigated by requiring the loan to be secured against property. The government could further reduce risk by capping the loan-to-value ratio at a low amount.

Expanding this product would not necessarily impact on the extent of schemes offered by the private sector. In fact, an expanded PLS may even boost demand for private schemes as people become more familiar (and comfortable) with reverse mortgage products.

Home reversion scheme market overview

Home reversion schemes (also known as shared sale agreements) present an alternative to reverse mortgages. In a home reversion scheme, the homeowner receives a discounted lump sum payment in exchange for a fixed proportion of the future value of the home.

In this way, cash is made available *and* the residual proportion of the homeowner's equity is protected.

To illustrate:

Consider a home valued at \$200,000 and 50 per cent of the future value of the home is sold via a home reversion scheme.

Although 50 per cent of the current value of home equates to \$100,000, the homeowner receives a discounted sum that might range from \$35,000–\$65,000.

The amount of discount would depend on life expectancy, current interest rates, and so on. No repayments are made by the homeowner while they remain in the home.

When the home is sold, the agreed portion of the proceeds goes to the scheme provider. If 20 years later the house sells for \$400,000, the provider would be entitled to receive 50 per cent of this amount: \$200,000.

At the time of writing there is only one provider of home reversion products in Australia: Homesafe Solutions.⁶

Homesafe products are only available to homeowners in Sydney and Melbourne, subject to the following strict criteria:

- Homeowners must be aged 60 years or older in Victoria, or 55 years or older in New South Wales (where at least one homeowner is aged 60 years or older) at the date of entering contract with Homesafe.

⁶ A joint venture of Bendigo and Adelaide Bank and Athy Pty Ltd.

- Homes must be within eligible postcode areas. Homesafe currently covers around 90 per cent of metropolitan Melbourne and Sydney postcodes.
- Homes must be free-standing, or if a unit, there must be no more than four units on the title plan.
- The property must be the principal place of residence of at least one homeowner at the time of the exchange of contracts.
- The land value must be 60 per cent or greater of the total value of the property, as determined by an independent panel valuer.
- All permanent residents in the home must be shown as property owners on the certificate of title or can be added as required.
- Homeowners must have a clear title (or any existing mortgages discharged) before, or at the time, Homesafe contracts with them.

Risk: a supply-side inhibitor?

Provider risks: reverse mortgages

The major risks faced by reverse mortgage providers relate to house price risk, default, longevity risk and funding risk:

- **Contracting and crossover risk** – a risk associated with loan default when the borrower remains in the house after the negatively amortising loan balance exceeds the value of the house (Chinloy and Megbolugbe 1994).
- **Interest rate risk** – the interest rate risk of a fixed rate reverse mortgage is often much greater than the interest rate risk of other fixed-income securities. Reverse mortgages create large off-balance sheet liabilities if market interest rates rise above the fixed interest rate (Boehm and Ehrhardt 1994). We note that the Australian market however is characterised by variable interest rates, unlike many of its counterparts.
- **Borrower maintenance risk** – the incentive for homeowners to reduce maintenance expenditures as their equity in the house falls during the term of the reverse mortgage or home equity agreement. The underlying reason for this tendency is the limited liability feature of reverse mortgages, given that a borrower's obligation to the lender at maturity is limited to the value of the house. Miceli and Sirmans (1994) show that lenders will respond to this problem either by limiting the amount of reverse mortgage loans to guarantee that maintenance risk is not a threat, or by charging an interest rate premium to cover the expected cost of default.
- **Funding risk** – a reverse mortgage product by its nature has an uncertain tenor and produces no cash flow during its tenure. This is naturally also true of securitised products that are based on pools of reverse mortgages.⁷ Investors will gravitate towards certainty of maturity and cash flows; in times of constrained credit this is especially so. This is a significant impediment to market growth – a lack of investor appetite for the funding products makes it very difficult for institutions to grow their reverse mortgage business.

⁷ Wang, Valdez and Piggott (2008) propose a means to hedge the longevity risk inherent in reverse mortgage products. They suggest a securitisation structure for reverse mortgages similar to the one applied in traditional insurance products, by developing survivor bonds to securitize the 'longevity risk component' of reverse mortgage products. In the absence of secondary risk products like this, these risks are redirected back to the home owner via higher interest rates, limited availability, and low LVRs to limit exposure to house price risk and longevity risk.

Provider risks: home equity reversion products

There are also risks in the provision of home reversion products. In a similar way to reverse mortgages, the risks relate to longevity and house price fluctuations,⁸ but when compared with reverse mortgage contracts, the distribution of risk between home owner and provider differs in home reversions.

Compared with reverse mortgages, the longevity risk is borne more by the provider in home reversion contracts. This includes:

- **Termination risk** – in a home reversion scheme the consumer is always better off prolonging the length of the contract. However in some cases in a reverse mortgage the consumer may be better off terminating earlier (to avoid accumulated interest obligations).
- **Rental yield appreciation risk** – this discount estimate is akin to a lifetime lease agreement. The provider's payoff could be underestimated if the rental yield is underestimated.
- **House price depreciation risk.** While both parties to a shared sale agreement can benefit from capital appreciation, both parties necessarily face the risk of house price depreciation.

A stylised comparison of the risk and return profile of reverse mortgages and home reversions

In this section we provide an assessment and comparison of the risk and return profile for reverse mortgage and home reversion scenarios, based on the models proposed in Alai et al. (2014) and Cho et al. (2013).

For pricing, we derive a stochastic discount factor to accommodate the no-negative equity guarantee and the lease-for-life agreement in reverse mortgage and home reversion schemes.

We then calculate the actuarial present value (APV) of net payoffs of the funds provided, through simulating the cash flows. The APV is the expected value of the present value of a contingent cash flow stream.⁹ We then quantify the risk associated with different loan-to-value ratio (LVR) using a 99 per cent value-at-risk (VaR) model¹⁰ and conduct a sensitivity analysis to investigate the impacts of the LVR on the risk profile for each of the products.

⁸ Alai et al. (2014) provide a good actuarial-based summary of the risks and returns of home equity reversion providers.

⁹ Actuarial present values are typically calculated for the benefit-payment or series of payments associated with life insurance and life annuities. The probability of a future payment is based on assumptions about the person's future mortality which is typically estimated using a life table.

¹⁰ VaR is a popular measure of risk, widely used by the prudential regulators in the financial industry to gauge the amount of assets needed to cover possible losses. It estimates how much a set of investments might lose, given normal market conditions, in a set time period. The 99% VaR is defined as a threshold loss value, such that the probability that the loss on the investment exceeds this value is $100\% - 99\% = 1\%$.

Traditionally, house price dynamics are assumed to follow a geometric Brownian motion (cf. Kau et al. 1993, Huang et al. 2011). However, the GBM assumption cannot accommodate many stylised features of the distribution of house prices, such as conditional heteroscedasticity, auto-correlations, and volatility clustering of observed house prices. In this paper, consistent with Li et al. (2010), we apply an ARMA-EGARCH model to analyse the housing price dynamics.

Another important risk factor in equity release products is interest rate risk. A stochastic interest rate model with a realistic term structure needs to be considered. Moreover, Huang et al. (2011), among many other researchers, demonstrate that property returns and interest rates are correlated, in particular in the US and Australian markets. Sherris and Sun (2010) use a vector autoregressive model with two lags to capture the dynamic relationships between a house price index, rental yields, interest rates, and inflation.

We adopt the same approach in this paper, capturing the linear correlations embedded in a multivariate time series system. Furthermore, similar to Valadez (2010) we include gross domestic product (GDP) in our vector autoregressive framework.

Ang et al. (2003) describe the joint dynamics of bond yields and 18 macroeconomic variables in a vector autoregressive model, which shows GDP is a significant predictor of interest rates. Previous studies also argue that house prices are affected by macroeconomic factors (see Muellbauer and Murphy 1997 and references therein).

The probability of reverse mortgage loan termination for a single female borrower initially aged x is derived from the Markov termination model developed in Alai et al. (2013) based on work by Ji (2011).

There is no publicly available data on reverse mortgage terminations in Australia, so we adopt several assumptions made by Ji (2011) for the US and the UK. At-home mortality rates are derived by scaling down the underlying age-specific mortality rates to represent the better health of retirees who have not moved into a long-term care facility.

The probability of a move into long-term care is derived by multiplying the mortality rate with an age-varying adjustment factor, based on the UK experience reported in Institute of Actuaries UK (2005). Both the probability of prepayment and the probability of refinancing are assumed to depend on the in-force duration (in years) of the reverse mortgage loan (Hosty et al. 2008). Similar to Ang et al. (2006), we develop a vector autoregressive method to derive stochastic discount factors for pricing the no-negative guarantee in reverse mortgages.

The key idea of the method is that the discount factors should reflect the main drivers of reverse mortgage cash flows and should account for the risk factors' interdependencies. Idiosyncratic longevity risk is assumed to be fully diversifiable and systematic longevity risk is assumed to be hedgeable through reinsurance or securitisation.¹¹

A calibration procedure for the stochastic discount factor model was developed in Shao et al. (2012).

¹¹ Note these methods of risk management are not available to consumers, which creates an asymmetric risk profile between the demand and the supply side. Therefore, the conclusions drawn from this modelling framework cannot be (directly or inversely) extended for the buyers of reverse mortgage products.

Empirical findings

Table 3: A comparison of risk and return between reverse mortgages and home reversions

LVR	Reverse mortgage			Home reversion		
	No negative equity \$	Average APV \$	99% VaR \$	Lease for life \$	Average APV \$	99% VaR \$
15%	0	20804.98337	0	24261.23696	18149.18665	-2666.249213
25%	0	35007.57301	0	41065.77358	29760.58308	-4634.880318
30%	143.1018616	41834.93773	0	49284.27235	36123.7538	-5385.09458
35%	429.3055849	48662.30244	0	57502.77112	42486.92451	-6135.308841
40%	1129.121752	52537.29433	0	68533.02386	48216.46134	-7291.946478
45%	2513.357533	59634.31615	-29.94777154	73461.94038	53218.70891	-7900.638022
50%	4957.039245	58772.0873	-9279.867985	81255.45136	61164.39275	-8586.376515
55%	9960.201362	63154.18725	-24600.68163	90830.13656	65862.89296	-9585.71258
60%	17728.06315	60290.699	-40116.09012	95892.09403	71335.38906	-10726.59432
65%	27695.92494	57427.21076	-55631.49861	100954.0515	76807.88517	-11867.47606

Source: Authors

Some interesting findings emerge that explain the relatively low LVRs available on reverse mortgages in Australia, but the scenarios also highlight key differences in the risk profiles of reverse mortgage lenders and home reversion providers.

In the above illustrative comparison, we fix the initial age at 65 and the initial house value at \$400,000, and vary the LVR from 15 per cent to 65 per cent. We observe that there is a positive relationship between average payoff, risk and LVR for HR schemes.

In the case of no-negative equity reverse mortgages, the situation is more delicate due to crossover risk, which relates to the amount of accrued interest over the life of the loan which is repaid only when the borrower dies, sells or permanently leaves the home. The loan balance usually accumulates at a faster rate than the rise of home equity value, so that in time, it will exceed the value of the home equity. Under the current no-negative equity provisions, if the outstanding loan balance exceeds the home equity value before the loan is settled, the lender will incur a loss.

Compared with home reversion, there is a positive relationship in the trend between LVR and 99 per cent VaR. Nevertheless, due to the crossover risk the trend only begins when LVR is equal to or greater than 45 per cent and grows at an accelerated rate. The gap between the loan outstanding and house price (price-loan gap) is negatively related to the crossover risk, meaning the lower the gap, the higher the crossover risk. When LVR is low, the no-negative guarantee has a very small real value and the crossover risk is negligible. This translates to zero VaR for any LVR below 45 per cent. In this case, the terminal payoff for the lender would simply be the loan outstanding balance. However, an LVR above 45 per cent may increase the probability of negative equity occurring.

This partly explains the generally low LVRs in the Australian market. The expected payoff for reverse mortgages is higher than the home reversion products, with low or no provider risk for LVRs below 50 per cent.

On the other hand, when LVR exceeds 50 per cent, the expected payoff to reverse mortgages becomes lower than home reversions, and the risk increases at an accelerated rate. This asymmetry in the risk profile is associated with the discounted value of the no-negative equity guarantee, which behaves like a 'default option' (see Figures 1 and 2).

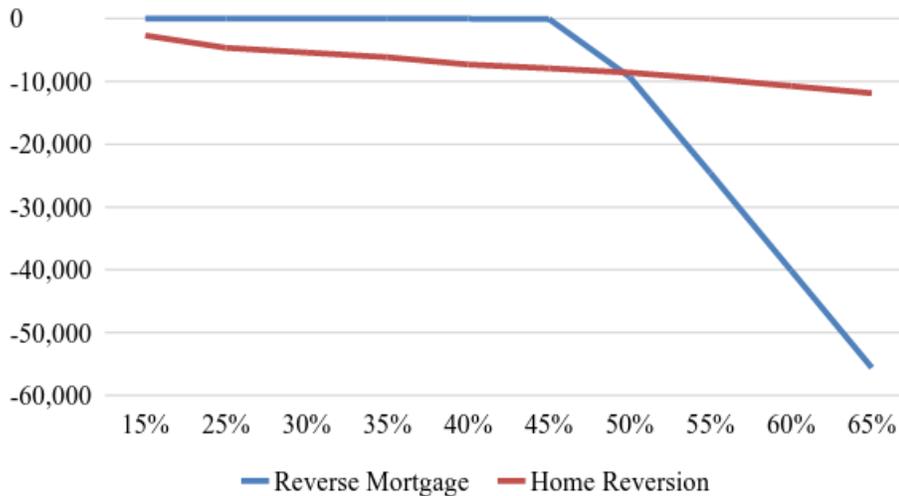


Figure 1: 99 per cent value at risk (VaR) versus loan-to-value (LVR) ratio

Source: Authors

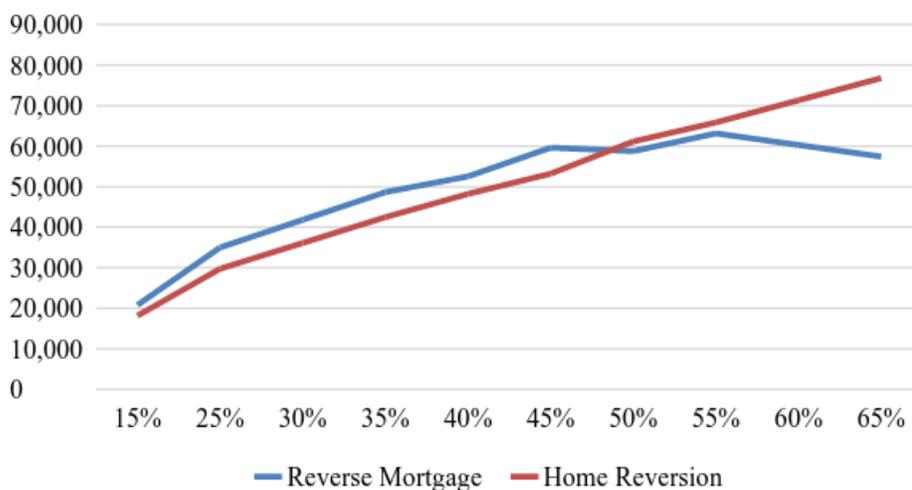


Figure 2: Expected payoff of reverse mortgages versus home reversions

Source: Authors

The mooted changes in retirees' pension payments in Australia suggest potential increases in future demand for products to supplement retirement income. If so, this demand will place pressure on lenders to increase the LVR threshold in their lending facilities. Were that the case, the natural response would be to offer home reversion schemes instead of reverse mortgages for any principal amount of equity release above 50 per cent LVR.

This suggests that reverse mortgage providers in Australia *could* increase maximum LVRs to facilitate the expansion of the reverse mortgage market. Compared with reverse mortgage contracts, providers of home reversion schemes obtain a lower payoff and assume a higher risk, which justifies the market dominance of reverse mortgages in Australia.

An efficient risk sharing and risk transfer mechanism needs to be developed to stimulate growth of the home reversion market. By providing an appropriate framework of regulation and financial literacy education, governments can encourage private supply of home reversion schemes at modest public expense.

It is acknowledged that there are other barriers to product providers in the market such as funding issues, the opportunity cost of capital in the market, branding issues, the specialised nature of the market, and the complexities of family relationships.

Demand-side inhibitors

Our risk assessment presented earlier demonstrated that ‘fourth pillar’ products can provide a way for retirees to insure against risks in retirement. In the first panel of Table 4 below we present a number of potential stimulators to market growth. Demand side growth however is stifled by the inhibitors we identify in the second panel. In this section we focus on a subset of these inhibitors that we believe, if targeted, would encourage growth in the market.

Table 4: Factors that characterise the current and immediate future of the home equity market

Demand stimulators (Panel 1)
<ul style="list-style-type: none"> ● Demographic shift – the proportion of the population in retirement stage is increasing ● High levels of homeownership – Australia has a very high level of home ownership ● Changing attitudes to use of home equity – there is some indication that attitudes towards homes are changing (Productivity Commission survey 2015) ● Welfare tightening – moving forward we expect services typically provided by the government in retirement will become more targeted towards lower-income households ● Falling superannuation returns – since the GFC Australia has been in a period of relatively low growth (accompanied by low interest rates), suggesting returns in the short to medium term may be relatively low ● No-negative guarantee – greater awareness of this guarantee is likely to put some retirees at ease in committing to a reverse mortgage ● Political support for housing to be considered as the fourth retirement pillar ● Intergenerational wealth transfer – home reversions could facilitate ‘living bequests’ by allowing retirees to access equity to assist children/grandchildren to purchase their own property
Demand inhibitors (Panel 2)
<ul style="list-style-type: none"> ● Inadequate financial education – planning for retirement is not a priority for many households ● Poor consumer perception of financial advice (ASIC 2007) ● Perceived and actual complexity – this deters many people from preparing for retirement income streams, and it may also foster a complacency among some people who may mistake sophistication for complexity ● High product cost (perceived and real) ● Precautionary savings motivation – retirees want to have a store of wealth they can liquefy ‘just in case’ ● Bequest motives – many retirees still feel an obligation to preserve and pass on their wealth to future generations

According to a report by the Productive Ageing Centre (2012), net wealth and income are both strongly and positively associated with seeking financial advice.

In addition, the probability of seeking financial advice falls by an estimated 20 per cent between age 65 and 85. Financial literacy was found to be associated with age, in particular those aged 80 were the least financially literate (Productive Ageing Centre 2012).

These findings suggest that the older Australians most in need of financial advice are those least likely to seek it.

Given the maximum benefit of equity release products is likely to apply to older, less (cash) wealthy retirees, educating this cohort in reverse mortgage (or home reversions) products could be challenging.

For people who do access financial information, there is the additional concern that knowledge of equity release products is specialised, and retirees would need to actively seek out professionals with the specialist skills. Further, knowledge gained from international sources is typically negative. For example, media discourse in the US tends to echo consumer and senior groups concerns of equity release to fund retirement.

Media article themes, generally negative, tend to reflect one or all of the following statements:¹²

The fees are high, high interest rate ... Your heirs might not get the house ... You have to repay the loan when you move out ... You're still responsible for the home costs such as insurances / property taxes.

As the GFC highlighted, however, the structure and regulation of the financial sector, coupled with strict consumer protection legislation in Australia, distinguishes it from the US. Media discourse in Australia does have a tendency to be more positive about the potential benefits of equity release in Australia, but the market is small and we suggest struggles to market its potential in the wake populist overseas discussions.

Finally, a major factor inhibiting consumer confidence falls under the banner of behavioural bias. In a recent paper focusing on annuities, O'Meara, Sharma and Bruhn (2015) identify 13 forms of behavioural bias. We believe that the small market for home equity in Australia is characterised by the same factors.

This includes the fact that people dislike thinking about negative things such as being poor and old. It also includes reasons that often cause retirees to mistime their decision, for example postponing a decision in the hope that market conditions will be more favourable in the future (Kopanidis et al 2014).

In addition, O'Meara et al. identify a set of non-behavioural factors, including the need to condition individuals prior to retirement so they can make considered and timely decisions.

A full set of the O'Meara et al. (2015) factors together with their definitions are presented in Appendix A.

Using equity in the family home represents a shift away from the traditional bequest motive. The appropriateness of inheritance arrangements and intergenerational bequests often brings out strong feelings, and can lead to conflict in a family (Laurence and Goodnow 2011).

That said, Olsberg and Winter (2005) find that the desire to bequeath to the next generation is diminishing. A survey conducted by the Productive Ageing Centre also finds the bequest motive is of low or diminishing concern to ageing individuals (i.e. 'we're spending the kids' inheritance').

This decline in the traditional values around bequeathing wealth to children is supported by the perception of the 'hedonistic self-server' retiree spending on their lifestyle, but it also relates to

¹² <http://money.usnews.com/money/blogs/on-retirement/2012/12/11/5-reasons-to-avoid-a-reverse-mortgage>

retirees who are more precautionary in their spending habits, saving for a rainy day, which may or may not occur in their lifetime.

This suggests that bequests are more accidental than deliberate. Both perspectives indicate that current and new generations of retirees may be more open to using home equity to support retirement income or to meet unexpected contingencies.¹³

Despite evidence suggesting that retirees are becoming more open to using housing equity as a means of funding retirement, a recent survey by the Productivity Commission suggests that a large percentage of retirees are still looking to pass on their home as an inheritance. Further, only 40 per cent see their current home as something they would use to fund retirement (Figure 3).

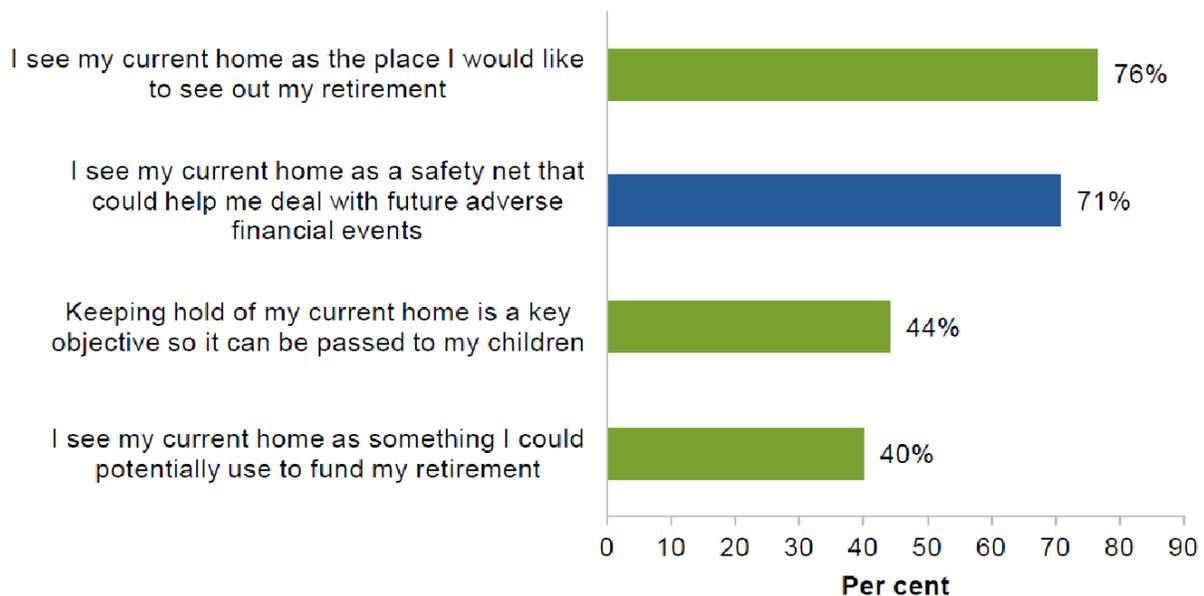


Figure 3: Perceptions of the role of the family home in retirement

Source: Productivity Commission (2015a), p. 14

The shortfall in retirement savings is compounded by a lack of interest in retirement planning. Added to this are general questions about financial literacy. A paper by Kopanidis, Robinson and Reid (2014) illustrates the psychological barriers to retirement faced by single women, a low-resourced cohort. They find that a negative predisposition to retirement planning has a significant influence on changing housing consumption patterns in retirement. Individuals who seek financial education in preparation for retirement are better adjusted in retirement (Kopanidis et al. 2014).

The overwhelming attitude of Australian households seems to be ‘she’ll be right’. Further, many households appear, outwardly, at least, to exist comfortably on the age pension. The problem is

¹³ The MLC wealth sentiment survey Q3 2014 (n = 2,100) suggests that 8 per cent of those surveyed plan to draw down on equity in their home to fund retirement, while 23 per cent expect to cut back spending on their children in retirement.

that eventually the state will face a pension burden that is likely to be unsustainable (Rothman 2012).

Low financial literacy is typified by attitudes such as:

- Superannuation savings will be sufficient for retirement. (This is arguably compounded by the fact that they are compulsory combined with a naïve faith that the settings must be correct.)
- The superannuation system is very complex and difficult to comprehend.
- Retirement savings behaviour is characterised by behavioural biases, leading to suboptimal retirement income outcomes.

A large part of retirement savings are currently in the form of accumulation schemes with no certain provision for a pension or annuity at retirement. Retirement income products such as life annuities are few and far between, due mainly to the prominence of the state-provided substitute (Sherris and Evans 2010), although there is some evidence that they might be gaining in popularity – at least in terms of clients receiving encouragement from advisors to consider these products (Sill 2015).

In summary there is much the government could and should do to encourage growth in this market. Primarily it should focus its resources on financial education. It also needs to present a more coherent approach to the regulation including tax treatment of various retirement income products. Proposed changes to superannuation rules (see Box C) have not been conveyed in a clear manner, reinforcing rather than recalibrating behavioural bias.

Box C: Update on regulatory changes to the age pension and superannuation

Effective from 1 January 2017, the assets test has been modified by increasing the taper rate from \$1.50 to \$3.00 for every \$1,000 of assets over the threshold.

This change means that an estimated 235,000 pensioners will have their payments reduced, while 91,000 are expected to lose eligibility for the pension altogether.¹⁴

At the same time, the government has improved the availability of the pension for people with low to moderate assets by increasing the 'assets free area', that is the value of assets one can hold in addition to the family home in order to qualify for the full pension.

An estimated 50,000 part-pensioners will now qualify for a full pension under the new rules. There have been suggestions to include the family home under the assets test, and thereby encourage pensioners to access their home equity in retirement. However, both the government and opposition are currently opposed to any changes affecting the family home.

The income test for the age pension has also been tightened with regards to income from funded defined benefit superannuation pensions. Under the new rules, from 1 January 2016, only 10 per cent of income from a defined benefit scheme can be excluded from the age pension income test.

This change restricts the ability of many former state government employees and employees of large firms with large superannuation incomes from accessing the age pension.

¹⁴ Morrison S 2015, 'Fairer access to a more sustainable pension', <http://www.formerministers.dss.gov.au/15866/fairer-access-to-a-more-sustainable-pension/>.

Prior to the 2016 federal election, the government had proposed a raft of changes to the superannuation system to better target concessions and reduce its use for tax minimisation. These proposals are currently under review by the government but many are supported in principle by the opposition.

This includes:

- increasing the tax on concessional contributions from 15 per cent to 30 per cent on combined income and contributions greater than \$250,000*
- lowering the concessional contribution cap to \$25,000*
- introducing a \$500,000 lifetime cap for non-concessional contributions starting from 2017.*

In addition, the government proposes to introduce a low-income superannuation tax offset which allows individuals with an adjustable taxable income of \$37,000 or less to receive an effective refund of the tax paid on their concessional contributions up to a maximum of \$500.

The opposition supports the government's policy to increase the tax on contributions from 15 per cent to 30 per cent. They have criticised the \$500,000 lifetime cap starting in 2007, arguing that it is retrospective and unfair, but they are also exploring ways to implement such a cap prospectively.

These policies are intended to target entitlements more effectively by restricting access for wealthier retirees. However, these unexpected changes to the age pension and the uncertainty surrounding proposed changes to superannuation have created confusion among retirees and limited their ability to plan effectively for retirement.

Conclusion and recommendations

Australia's population is ageing and there are mounting concerns as to whether the country's current retirement income system can meet future demand.

Our retirement income system is based on three pillars: the aged pension, compulsory superannuation, and voluntary savings. It is becoming increasingly clear that these pillars are placing fiscal strain on the country, while also subjecting retirees to longevity risk.

All parties, including retirees, recognise the inadequacy of these three pillars – recent survey findings indicate that many retirees do not expect their savings to last through retirement (Productivity Commission 2015b).

Australian retirees, if homeowners, tend to be 'asset rich' and 'income poor', with their stock of wealth often trapped in the family home. A growing number of studies, for example Johnson et al, (2015) are emerging that examine this issue. Our study complements these investigations by examining industry conditions. We note there are several particularly promising ways in which retirees may liquefy value in their home equity release markets.

A more efficient and effective retirement income system requires more than policy adjustment. Financial products that can assist retirees to access the wealth locked up in their homes in new and flexible ways are a necessary enhancement to the current system, particularly as the cost to the government of the age pension becomes more onerous and retirement funding policy heads more towards self-funding.

In this report we have addressed the question: why does the market remain so small? To examine this question, we first assessed the risk profile of home equity release products from a retiree's perspective, and we find that it complements existing financial retirement products. This suggests there is a gap in market that could be filled by a deeper and more efficient home equity release industry.

In the second section we provide a snapshot of the industry, and conclude that the market is still immature. We note that some changes in recent years may be seen as a setback rather than a move forward. We also note there are relatively few providers.

In the last two sections of the paper, we consider risk from both the supply and demand side. We note there are a number of risks that suppliers incur, which could explain why this market remains small.

In addition we note, based on a series of assumptions, that reverse mortgage providers are likely to offer low loan-to-value ratios (< 50 per cent), given the product's risk profile. Interestingly, we also note that home reversions may be better suited (relative to reverse mortgages) when a higher amount of the value is sought.

In the final section we note that there are a number of demand-side stimulators, but these stimulators are offset by a number of factors we label inhibitors. It is these factors that we strongly recommend should be addressed by the Australian policy community together with current and potential providers.

We note there are number of other factors, such as wholesale funding and branding, that could also be targeted. However, our recommendations focus on the most effective ways to assist the industry to develop its potential.

Specifically, we strongly recommend:

1. Government should implement a government-sponsored education package (with key stakeholder input) aimed at the broader community regarding equity release products. This needs to be a broad campaign targeting the *entire* population. A major challenge in getting the message across is that many retirees do not consult widely when making retirement decisions.
2. Noting the desire to 'age in place', the apparent shortfall in living standards (acknowledged by retirees), as well as the home being a form of precautionary savings, more needs to be done to allay fears of current and future retirees. This could take the form of more sophisticated retirement packages – for example, bundling home equity release options with retirement care options as well as bequest arrangements. If such products existed, they could significantly reduce the perceived demand-side risk of equity release options. Insurance packages could also be a major component of such a bundle. A form of government guarantee might also be appropriate. We note that this is something that industry together with consumer groups (who represent retirees) could work to develop.
3. Regulatory authorities must remain open and conducive to innovative products in the retirement income market. Further, the uncertainty plaguing various aspects of the retirement markets must be addressed, in particular changes in taxation treatments of superannuation and means testing of pension qualifications must be seen and done in a more coherent and less ad hoc manner. We suggest recent changes in the taxation treatment of superannuation, as well as discussions in age pension qualification, have led to a sense of confusion and lack of certainty discouraging households to consider retirement planning.

In addition to these major recommendations we suggest that the government should also consider expanding the Pension Loan Scheme, as this is likely to lead to a wider community acceptance of such products – this would be a particularly powerful signal if it was to accompany a tightening up of pension eligibility. An expansion of this scheme could be achieved through increasing its profile within the community, as well as relaxing the eligibility criteria.

Looking to the future, it is interesting to consider the results from a recent MLC wealth sentiment survey that found more than half of Australians do not expect to have adequate savings for retirement, women and divorcees being of particular concern.

Further:

The quarterly survey has found 11% of Australians already plan to sell the family home to fund their retirement, with a further 42% undecided on what they will do.¹⁵

It seems necessary for Australian households to move towards releasing their housing equity to fund retirement.

There would be many advantages of having a more vibrant home equity release market – not least increasing economic prosperity and living standards, and matching the preferences of Australian retirees to age in their own homes.

¹⁵ <http://www.professionalplanner.com.au/cut-and-paste/2014/10/24/almost-half-of-australians-undecided-on-whether-they-will-need-to-sell-the-family-home-to-fund-retirement-mlc-wealth-sentiment-survey-31910/> Accessed 10th August 2016

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Appendix A: Behavioural bias – decisions for taking up annuities

Reason	Explanation
Decision framing	The annuity decision can be framed as a means to guarantee an income for life (a 'consumption' frame) or an option that could result in loss of all assets due to early death (an investment frame). An example of a pure framing effect in the UK, for example, is that members of defined benefit schemes who receive a pension and a tax-free lump sum appear to be relatively happy with this arrangement, while members of defined contribution schemes who are subject to compulsory annuitisation appear to resent this requirement (Cannon & Tonks 2008).
Longevity gamble	Some may view an annuity as a gamble regarding time to death, with the odds in the favour of the insurance company.
Perception of insurance	Individuals may perceive insurance as covering "bad" events only, and since living a long time is not considered "bad", the longevity aspect of an annuity is not valued.
Absence of comprehensive plans	Rules of thumb or intuition, rather than something more comprehensive, which includes all assets, income sources and potential expenditure, may dominate wealth management plans.
Control	Greater control may be perceived in holding wealth rather than receiving income. This is particularly relevant in the context of financial needs varying over time, especially with respect to health-related costs in retirement (Auty 2014).
Buyer's remorse	The fear of not getting an optimal price or missing out if changing investment conditions lead to an aversion to annuities.
Regret aversion	The possibility of regretting a purchase (through, for example, diagnosis of a fatal disease soon after purchase) is avoided permanently by not annuitising.
Misinformation	Most individuals are likely to have little knowledge of how annuities work and the benefits they offer.
General financial illiteracy	Even if access to information was readily available and shared, the appreciation of investment and longevity risks is likely to be intangible for many.
Individuality	The predominance of individual perceptions and interests rather than collective solutions does not lend itself to the concept of risk pooling in retirement.
Default options	Where annuities are not the default option in a pension or savings plan, the choice of annuitising is lessened.
Historical view on personal retirement savings	Savings not tied into traditional defined benefit pension schemes may be seen as extra, discretionary wealth, rather than something needed for longevity protection purposes.
Other	People are simply averse to thinking about unpleasant events such as dying or being old and poor. People are ignorant of the probability of survival, with most people underestimating how long they are likely to live for (Auty 2014). Procrastination reigns for important decisions: it's easier to do nothing than something.

Source: O'Meara et al. 2015, p. 51, Table 3

Reason	Explanation
Ambiguity aversion	The familiar is preferred to the unfamiliar. This might also be exacerbated by 'optimism bias', which is akin to 'confidence in personal financial abilities' listed in Table 1 above.
Mental accounting	<p>MacDonald et al (2011) also suggest mental accounting as a factor when taking a 'longevity gamble' (see table 3 above), which includes asking whether one will live long enough to make an initial investment worthwhile. Other aspects to mental accounting include (Thaler 1999):</p> <ol style="list-style-type: none"> 1. How situations are perceived—for example, choosing between a 500 mL can of coke for \$1.50 and a 1.5 L bottle for \$1.75: does the decision depend on a comparison of price and volume, or actual need at the time? 2. Assigning certain activities to certain accounts. 3. How frequently these separate accounts are evaluated, and whether their separation and intent has a short or long time horizon. <p>Various implications of such categorisation of financial needs may impact how an individual ascertains and assigns value between 'future income' and 'immediate needs'.</p>
Peer influence	Many investment decisions are influenced by peer choices (Duflo & Saez 2002), so given that annuities are not popular, negative opinions of others regarding annuity purchases may be influential on potential purchase decisions. This also relates to behavioural biases of 'herding', social norms and groupthink.
Conditioning	The focus is usually on option-taking at retirement, but the period to influence annuity purchase is potentially during an individual's working life, as attitudes to annuities may be in place well before retirement (DiCenzo et al 2011).

Source: O'Meara et al. 2015, p. 51, Table 4