Positioning Paper

Peer Reviewed

Assets, debt and the drawdown of housing equity by an ageing population

authored by

Rachel Ong, Marietta Haffner, Gavin Wood, Therese Jefferson and Siobhan Austen

for the

Australian Housing and Urban Research Institute

at Curtin University
at RMIT University

May 2013

AHURI Positioning Papers No. 153

ISSN: 1834-9250
ISBN: 978-1-922075-30-7

AHURi
Australian Housing and Urban Research Institute

Authors	Ong, Rachel	Curtin University
	Haffner, Marietta	Delft University of Technology RMIT University Cambridge University
	Wood, Gavin	RMIT University
	Jefferson, Therese	Curtin University
	Austen, Siobhan	Curtin University
Title	Assets, debt and the drawdown of housing equity by an ageing population	
ISBN	978-1-922075-30-7	
Format	PDF	
Key words	ageing, downsizing, housing equity withdrawal	
Editor	Anne Badenhorst	AHURI National Office
Publisher	Australian Housing and Urban Research Institute Melbourne, Australia	
Series	AHURI Positioning Paper, no. 153	
ISSN	1834-9250	
Preferred citation	Ong, R, Haffner, M, Wood, G, Jefferson, T and Austen, S (2013) *Assets, debt and the drawdown of housing equity by an ageing population,* AHURI Positioning Paper No.153. Melbourne: Australian Housing and Urban Research Institute.	

ACKNOWLEDGEMENTS

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

AHURI comprises a network of universities clustered into Research Centres across Australia. Research Centre contributions—both financial and in-kind—have made the completion of this report possible.

DISCLAIMER

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

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

AHURI POSITIONING PAPER SERIES

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

PEER REVIEW STATEMENT

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

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

ABS	Australian Bureau of Statistics
AHEAD	Asset and Health Dynamics among the Oldest Old
ASIC	Australian Securities and Investments Commission
AUD	Australian dollars
BHPS	British Household Panel Survey
CFPB	Consumer Financial Protection Bureau
CGT	Capital gains tax
COTAWA	Council on the Ageing Western Australia
CPI	Consumer Price Index
DNB	Dutch National Bank or De Nederlandsche Bank
ERC	Equity Release Council
ERS	Equity release scheme
EU	European Union
EU-SILC	European Union Statistics on Income and Living Conditions
FHA	Federal Housing Administration
FSA	Financial Services Authority
GDP	Gross Domestic Product
GFC	Global financial crisis
HECM	Home Equity Conversion Mortgage program
HELOC	Home equity line of credit
HES	Household Expenditure Survey
HEW	Housing equity withdrawal
HILDA	Household, Income and Labour Dynamics in Australia
HUD	Department for Housing and Urban Development
IMF	International Monetary Fund
LIS	Luxembourg Income Study
LVRs	Loan-to-value ratios
MEW	Mortgage equity withdrawal
NAR	National Association of Realtors
OECD	Organisation for Economic Co-operation and Development
PSID	Panel Survey of Income Dynamics
SAM	Shared appreciation mortgage
SEP	Sociaal Economisch Panel
SEQUAL	Senior Australians Equity Release Association of Lenders
SHARE	Survey of Health, Ageing and Retirement in Europe

SHIP	Safe Home Income Plans
SIPP	Survey of Income and Program Participation
UK	United Kingdom
US	United States

EXECUTIVE SUMMARY

This Positioning Paper is the first output of a project that aims to uncover the uses, financial costs and risks of housing equity withdrawal (HEW) via alternative mechanisms by older Australians. By HEW, we are specifically referring to any mechanism that homeowners use in order to convert some or all of the illiquid equity held in their primary homes into income, regardless of whether that equity is being taken out as a lump sum or in regular payments. The findings of the project will provide a comprehensive evidence base for policies and programs aimed at maximising the availability and quality of information to support Australians in their decision-making over the management of housing wealth in later life. This Positioning Paper presents background material that will inform the project's research aim.

The ageing of the population is a global demographic transition that is creating seismic shifts in the age structure of populations worldwide, and Australia is no exception. Indeed, fiscal pressures associated with population ageing and concurrent globalisation trends have prompted governments worldwide to consider a range of strategies designed to extend self-provision in old age. Tax preferences and asset test concessions have traditionally favoured accumulation of wealth in the primary home and this approach was given added impetus by a decade-long period of sustained house price appreciation prior to the GFC. It is therefore not surprising that the primary home has come under scrutiny from governments worldwide as a key store of wealth that can potentially perform a pension role in retirement. Moreover, attitudinal change may also be apparent among baby boomers as growing desires for independence, flexibility and lifestyle choices in later life are increasingly driving decision-making surrounding the use of housing in old age.

However, the move towards housing asset based welfare is predicated on the assumption that investment in 'bricks and mortar' will yield significant returns as house prices continue to increase indefinitely. In contrast, recent economic events have highlighted the potential riskiness of housing as a vehicle to fund retirement. Furthermore, while a number of financial instruments currently exist to enable HEW, the tax-benefit consequences of HEW in later life are complicated and poorly understood. This can result in ill-informed decisions about the use of HEW mechanisms to support consumption in retirement. The poor supports for decision-making about HEW have implications for policy because, potentially, they expose many older Australians to financial vulnerability in retirement, which in turn has ramifications for the viability of the income support system.

In this Positioning Paper, we outline a typology that provides a broad conceptual framework for systematically describing and comparing alternative HEW mechanisms. Traditionally equity withdrawal required sale of the home. However, financial deregulation and rising house prices in the 1980s and 1990s has been accompanied by innovations that allow in situ mortgage equity withdrawal (MEW). Broadly speaking, a key cost associated with the sale method of withdrawing housing equity is affected by the levying of taxes when properties are sold and bought, such as capital gains tax and conveyance tax on the purchase of property. On the other hand, in situ MEW appears to be susceptible to more forms of risks than the sale mode. These risks include interest rate risk, house price risk and negative equity risk.

We also present the results of a selective international survey focusing on HEW mechanisms that are available in six developed countries: Australia, United Kingdom, United States, Netherlands, Finland and Germany. By comparing developments in HEW in Australia against other countries, we are able to evaluate the extent to which

the institutional environment in Australia support or discourage the use of HEW by older Australians as opposed to countries with different institutional settings.

The research reported in this Positioning Paper uncovers three key features of HEW by older homeowners in Australia. First, wealth stored in the primary home remains the most dominant asset in the portfolios of most older persons in Australia. The global financial crisis (GFC) has not reversed the housing bias in portfolios. Older single women and all those aged over 65 years are particularly reliant on housing assets. Their wealth is concentrated in the primary home and superannuation balances are relatively low. Nevertheless retired home owners typically aged over 65 years appear to view housing wealth as precautionary savings that are only rolled out in extreme circumstances. The literature suggests that this reluctance is also evident among retired homeowners in countries such as the Netherlands, Finland and Germany.

Second, based on our cross-country comparisons, we find that Australia's institutional settings appear to be more conducive for HEW than in other countries. It has an extremely well-developed mortgage market which was not significantly affected by the GFC. On the other hand, the take up of equity release products by the older population in the US and UK did decline as a result of the GFC. In addition, Australia's relatively large private rental sector makes selling up and renting a more realistic option than in countries with smaller private rental markets (e.g. the UK), should homeowners be forced to sell their homes to access large amounts of housing equity for emergency needs. Australia's public pension system is also less generous than pension systems available in countries such as Finland and Germany, and the significant house price appreciation experienced in Australia, together with capital gains tax exemption on the sale of the primary home, over the last few decades has fuelled incentives to cash out capital gains, as opposed to, say, Germany where house prices have not appreciated. The new mortgage products that have emerged since financial deregulation have helped by transforming housing wealth into a liquid asset such that borrowers can draw down their housing equity as and when they choose. For working age Australian homeowners there is now convincing evidence that HEW is being used to fund everyday consumption needs.

This leads us to the third key finding, which relates to the implications of HEW for the robustness of housing wealth as an asset base in old age. Government policies (e.g. tax expenditures and concessionary asset tests) that encourage accumulation of wealth in the primary home are a cornerstone of Australian social policy. These policies are prefaced on the assumption that homeowners will own their homes outright in old age, hence lower incomes in retirement will be matched by low housing costs, and retirees can therefore get by on smaller pensions. However, homeowners that use HEW to meet spending needs earlier in their life cycle will eat into housing wealth. Our statistical analysis confirms that more and more older Australians are approaching retirement with outstanding mortgage debt, a trend that (on early indications) has not been reversed by the GFC. The analysis further suggests that some may be paying off their mortgage debt using lump sum superannuation payouts that become accessible on reaching the preservation age. Those who do not will presumably continue making regular mortgage repayments after they retire. These scenarios imply increasing pressure on the age pension system, as superannuation funds and pensions are drained to repay mortgage debts that are still outstanding as retirement approaches. Since the 1990s housing's role as a pillar supporting retirement incomes policy has weakened as baby boomers use their housing wealth to bring forward superannuation balances and smooth consumption during their working lives. There is a second important trend that has relevance. The edges of home ownership are now more fluid as growing numbers of Australians churn back

and forth between owning and renting, or even permanently fall off the ‘home ownership ladder’. First transitions into ownership are no longer the secure foothold they once were, and this is particularly evident among the casualties of relationship breakdown. Those on the edges of home ownership confront a particularly uncertain future housing career that threatens their security in retirement.

The research reported in this Positioning Paper has provided important material to inform the key research aim of this project. The next stage of the project will build on the preliminary evidence in this Positioning Paper by directly addressing the project’s key research questions via a mixed methods framework that uses a web of inter-related quantitative and qualitative methodologies to triangulate findings.

1 INTRODUCTION

1.1 Aims and structure of the Positioning Paper

This Positioning Paper is the first output of a project that aims to uncover the uses, financial costs and risks of housing equity withdrawal (HEW) via alternative mechanisms by older Australians. By HEW, we are specifically referring to any mechanism that home owners use in order to convert some or all of the illiquid equity held in their primary homes into income, regardless of whether that equity is being taken out as a lump sum or in regular payments. The findings of the project will provide a comprehensive evidence base for policies and programs aimed at maximising the availability and quality of information to support Australians in their decision-making over the use of housing wealth in later life.

The project has a number of key research questions related to its aim:

1. To what extent are older Australians tapping into their housing equity via alternative mechanisms, and what are they using HEW for?
2. What are the costs and risks of using HEW in later life, and how do these vary across the older population according to socio-economic groups and across scenarios relating to tax-benefit settings and asset price changes?
3. How do older Australians perceive the different mechanisms for HEW and how do these perceptions influence decisions about the use of HEW?
4. What financial products can be introduced to mitigate the risks associated with HEW in older age?

This Positioning Paper presents background material that will inform the key research questions of this project.

The rest of this chapter will describe the general policy context of the research topic, with a view to highlighting the policy significance of our key research questions.

An extensive review of the international academic and policy literature encompasses Chapters 2 and 3. We begin by elaborating on the theoretical framework underpinning research into the role of housing equity in an ageing population, and explore how HEW has been conceptualised in the existing literature. This information is then used to arrive at a typology which provides the framework for systematically describing and comparing various HEW mechanisms in relation to their characteristics, and associated costs and risks in Chapter 2. Chapter 3 extends the review by establishing what is known about the uses and risks of HEW in various developed countries, including Australia.

Chapter 4 presents descriptive statistics that profile the asset and debt portfolios of older Australians, and assess the importance of housing assets and debts within the portfolios of Australia's ageing population. It highlights potential risks associated with the dominant role played by housing in asset and debt portfolios.

In the concluding chapter, we draw together key themes that have emerged from the preceding chapters and identify knowledge gaps and policy concerns. The Positioning Paper will conclude with an outline of the methodology we propose to implement during the next stage of the project.

1.2 The ageing of Australia's population

The ageing of the population is a global demographic transition that is creating seismic shifts in the age structure of populations worldwide, and Australia is no

exception. This phenomenon is the product of sizable long-run declines in the fertility rate as well as a lengthening of life expectancies.

During the last century, Australia experienced two extended periods of decline in fertility rates. Over the period 1907–34, the total fertility rate fell from around 4.0 babies per woman to 2.1 by the time the Depression era hit in the early 1930s. After the Depression had passed, women's willingness to bear children increased; this continued through the Second World War, reaching a new peak of 3.5 babies per woman at the beginning of the 1960s. However, during the bulk of the 60s, 70s and 80s, changing social attitudes about the optimum family size, increased female labour force participation and the availability of contraception drove another round of decline in fertility rates. By 2001, the total fertility rate had plummeted to 1.73 babies per woman. Though the fertility rate has climbed slightly in recent years (in 2010 it was 1.89 babies per woman), it is currently at a historical low, and certainly beneath the replacement fertility level of 2.1 babies per woman (ABS 2012b).[1]

Since the beginning of the 20th century, Australians' life expectancy at birth has increased by more than 20 years. This has been largely due to general improvements in living conditions, including improvements in food and water quality, sewerage systems and health education, increasing pervasiveness of infection controls and public awareness of the importance of preventative measures, as well as developments in medical technology that have lowered mortality rates and improved life expectancies. During the first decade of the 20th century, the average life expectancy at birth was about 55.2 years for boys and 58.8 years for girls. By 2007–09, this has risen to around 79.3 years for boys, and 83.4 years for girls. Indeed, while a man (woman) aged 65 years old at the beginning of the 20th century could only expect to live for another 11.3 (12.9) years, a 65-year-old man (woman) in 2009 can expect to live for another 18.7 (21.8) years (ABS 2011a).

Migration is a third key factor that can affect the age structure of the population. Population increases reflect both natural increase and net overseas migration trends. Australia has experienced relatively stable natural increase over the last two decades. However, net overseas migration has exhibited greater volatility, fluctuating from a relatively low contribution of 17 per cent to population growth in 1992–93 when Australia was experiencing an economic recession, to a high contribution of 66 per cent in 2008–09 when demand for skilled migrants was peaking and supported by an expansionist immigration policy.

It is noteworthy that in 2010, the median age of overseas-born Australian residents was 44.7 years old, significantly higher than the Australian-born median of 33.4 years. The underlying reason is that large numbers of migrants entered Australia under post-Second World War assisted passage programs; these migrants have of course aged and now make up a significant segment of Australia's ageing population (ABS 2011b).

As Hugo (2003) rightly notes, the high fertility rates and immigration levels of the post-war years have produced an enormous cohort of baby boomers who will be ageing over the coming decades. The swelling numbers of ageing boomers will no doubt influence every domain of Australian public policy as they increasingly dominate changing trends in needs, attitudes and preferences. Indeed, population ageing is already beginning to pose significant policy challenges for governments in Australia and other developed countries.

[1] Replacement fertility level is the number of babies a woman would need to give birth to over her reproductive life to replace both herself and her partner (ABS 2012b).

1.3 The shift towards housing asset based welfare

1.3.1 Retreat of the welfare state

The capacity of a nation to fund rising spending needs associated with ageing will be hampered as the proportion of working age adults in the population shrinks. This has already resulted in growing pressure on government budgets to meet age-related payments and services, a burden that will only intensify in coming years as the rate of population ageing accelerates, and threaten the sustainability of balanced government budgets.

In 2009–10, 26 per cent of Australian government spending was directed towards health, age-related pensions and aged care services. This is projected to double to around half of total government spending over the next 40 years. In its 2010 intergenerational report, the Australian government (2010, p.46) forecasts spending on what it calls 'demographically sensitive' areas will climb from 22.4 per cent of GDP in 2015–16 to 27.1 per cent of GDP by 2049–50, unless measures are implemented to curb the growth in spending in these areas.[2] The result will be a budget deficit amounting to 2.75 per cent of GDP in 40 years' time (Australian Government 2010).

The demographic transitions occurring as a result of population ageing are not the only trends driving a shift towards fiscal austerity in the current century. As Wood and Ong (2012) point out, the removal of trade barriers, advances in technology and deregulation of financial markets have paved the way for globalisation, which is marked by increasing international integration of national economies world-wide. Many countries, especially those in developed regions, have reaped significant economic benefits arising from gains associated with globalisation, including more efficient allocation of resources and improved competition in markets. However, the downside is that government sovereignty over domestic economic and social policies have weakened, and indeed the need to maintain internationally competitive tax rates may have tightened fiscal constraints (Wood & Ong 2012).

1.3.2 Expansion of housing asset based welfare

For the majority of older Australians, the primary home represents their most significant asset (see Section 4.2 for details). Fiscal pressures associated with population ageing and concurrent globalisation trends have prompted governments worldwide to consider a range of strategies designed to extend self-provision in old age. The compulsory superannuation guarantee, introduced in the early 1990s in Australia, was one such measure.[3] More recently, financial incentives have been introduced to reward those who continue working beyond the age pension eligibility age. Furthermore, tax preferences and asset test concessions have traditionally favoured accumulation of wealth in the primary home and this approach was given added impetus by a decade-long period of sustained house price appreciation prior to the global financial crisis (GFC). It is therefore not surprising that the primary home has come under scrutiny from governments worldwide as a key store of wealth that can potentially perform a pension role in retirement (Doling & Ronald 2010).

---

[2] Demographically sensitive spending areas include health, aged care, age-related pensions and education (Australian Government 2010, p.153).

[3] Currently, under the superannuation guarantee legislation, employees aged between 18 and 69 years old and earning at least $450 in monthly gross earnings are entitled to superannuation guarantee contributions from an employer. Employees aged under 18 years must earn at least $450 in monthly gross earnings and work more than 30 hours per week to be entitled to superannuation guarantee contributions. Employer contributions are equivalent to a minimum of 9 per cent of the employee's ordinary time earnings, capped at a maximum contribution base (Australian Taxation Office 2012).

The pressure on older Australians to increasingly provide for themselves in retirement by tapping into their housing wealth is evidenced by new policy recommendations that have dominated discussions surrounding the funding of aged care in Australia. Indeed, a recent inquiry conducted by the Productivity Commission into the aged care sector argues that 'many older Australians with low income have substantial wealth, which gives them the capacity to meet their lifetime accommodation costs and to make a modest contribution to the costs of their care' (Productivity Commission 2011, p.xxvi).

Moreover, young Australian families now seem prepared to draw down their housing wealth to meet the acute spending needs that accompany the earlier years of household formation. This pattern threatens the assumption that future Australians will enter old age with ample amounts of housing wealth. High divorce rates, delayed transitions into marriage and rising rates of non-marital cohabitation are eroding commitment to the traditional family model that has been so conducive to the achievement of high rates of home ownership (Wood & Ong 2012).

Attitudinal change may also be apparent among baby boomers. Olsberg and Winters' (2005) study on the future housing intentions of 7000 older Australians aged 50 years and over confirm that older Australians' growing desire for independence, flexibility and lifestyle choices are increasingly driving decision-making surrounding the use of housing in old age. As a result, traditional values that have typically prioritised family obligations and underpinned bequest motives are being eroded in favour of the construction of more self-centred lifestyles.

Purposeful moves by governments to encourage use of the family home to fund retirement needs, as well as increasing willingness to draw down housing wealth over their lifetime, has been assisted by deregulation in the financial sector. The liberalisation of housing finance has facilitated the development of new mortgage products that allow homeowners to tap into the (traditionally) illiquid wealth held in their home, and convert housing equity into an income stream that allows them to boost consumption in retirement. A key consequence is that widespread in situ equity borrowing has emerged, effectively turning housing wealth into a de facto asset base for welfare.

At a macro level, this represents a seemingly common-sense solution to the increasing fiscal pressures associated with population ageing. However, the move towards housing asset based welfare is predicated on the assumption that investment in 'bricks and mortar' will yield significant returns as house prices continue to increase indefinitely. In contrast, recent economic events have highlighted the potential riskiness of housing as a vehicle to fund retirement. Housing wealth is also a unique asset because the risks associated with future house price movements cannot be hedged (Shiller 2003). These risks are augmented by life shocks in later life that can significantly erode housing wealth (Wood et al. 2010a; Smith & Searle 2010). Smith (2012) notes that as pathways from housing wealth to consumption have emerged via the introduction of new mortgage products, housing risk has in fact escalated, exposing significant numbers of homeowners to investment and credit risks and threatening the overall stability of the home ownership sector. Indeed, as Wood and Ong (2012) report, 1.65 million episodes of home ownership were terminated by a move into rental housing over the period 2001–09. This represents a move out of owner occupation by 20 per cent of Australian homeowners over this period, a figure that dwarves the 10 per cent of homeowners who cycled out of home ownership in the

United Kingdom (UK), a country with similarly developed mortgage markets and high home ownership rates as Australia.[4]

Furthermore, Flatau and Wood (2000) argued that the benefits of HEW may be limited by tax and the impact on means-tested benefits in Australia. While a number of financial instruments currently exist to enable HEW, the tax-benefit consequences of HEW in later life are complicated and poorly understood. This can result in ill-informed decisions about the use of HEW mechanisms to support consumption in retirement. Indeed, Olsberg and Winters' (2005) observe a disjuncture between, on the one hand, a willingness of older Australians to engage in HEW and, on the other hand, evidence of poor financial planning and lack of literacy regarding government benefits. Bridge et al. (2010) also highlight a need for more detailed evaluations of the impact of taxation on reverse mortgages to inform household decision-making on HEW. The poor supports for decision-making about HEW have implications for policy because, potentially, they expose many older Australians to financial vulnerability in retirement, which in turn has ramifications for the viability of the income support system.

Against this backdrop of policy concerns, our project aims to uncover the financial costs and risks of alternative HEW mechanisms, and makes recommendations about financial products that can mitigate risks associated with the drawdown of housing equity by older Australians. The findings of the project will provide insights into decision-making by Australians surrounding the use of housing equity as they age, and provide an evidence base to inform government regulation of HEW and their interventions to assist Australians with the management of their housing wealth in later life.

[4] These estimates have been calculated from the Household, Income and Labour Dynamics in Australia (HILDA) Survey and the British Household Panel Survey (BHPS). The UK estimates have been calculated over a slightly shorter time period 2001–08.

2 CONCEPTUALISING HOUSING EQUITY WITHDRAWAL

This chapter draws from the international literature to inform the conceptualisation of HEW by older Australians. By HEW, we are specifically referring to any mechanism that home owners use in order to convert some or all of the illiquid equity held in their primary homes into income, regardless of whether that equity is being taken out as a lump sum or in regular payments. It is worth noting that there are many variants of the terminology used to describe the conversion of housing equity into income by home owners in the literature. For example, Reifner et al. (2007a, p.1) use the term 'equity release' to describe 'both the process and the products that allow homeowners to secure substantial lump sums or regular income payments by realising part of the value of their homes, while being able to continue to live in it'. Sometimes the terms 'conversion', 'extraction' or 'mobilisation' (p.3) may be used. Smith and Searle (2008) and Ong et al. (2013) use HEW as an umbrella term for a range of methods through which the equity in the home can be converted into income. In our study, we use the term HEW broadly in a similar way to Smith and Searle (2008) and Ong et al. (2013). HEW is later used interchangeably with the term 'equity release' in this Positioning Paper in our cross-country comparisons in Chapter 3, where Reifner et al. (2007a, b) is a major source of reference for our literature review.

We begin by elaborating on the broad theoretical frameworks that underpin research into the role of housing equity in an ageing population in Section 2.1. Section 2.2 explores how HEW has been conceptualised in the existing literature and recommends a typology which provides the framework for systematically describing and comparing various HEW mechanisms. These comparisons are fleshed out in Section 2.3, where we focus on differences in characteristics of the HEW mechanisms, including any costs and risks associated with the use of HEW.

2.1 Theoretical framework

Analysis of wealth accumulation and divestment has traditionally been grounded in the life cycle theory of consumption (see, e.g. Modigliani & Brumberg 1954; Hurd 1990; Davies & Shorrocks 2000). The life cycle theory hypothesises that households will engage in consumption smoothing over the life cycle based on expected lifetime or permanent income. Hence it is predicted that household wealth acts as a buffer between consumption and income, that is, households will engage in wealth accumulation during the earlier part of their life course when income exceeds consumption, and draw down their wealth when income falls below levels required to fulfil consumption needs in later life. In its simplest form, the life cycle theory suggests that an individual will exhaust all of his or her wealth by the end of the life cycle. The theory thus predicts that homeowners will cash in their housing equity to fund consumption in later life. Indeed, in recent years, there has been mounting interest in the specific role of *housing* wealth as a buffer to smooth income fluctuations. In a life cycle model where no uncertainty or moving costs exist, a rational homeowner will progressively engage in HEW after passing the peak of life cycle earnings until s/he possesses zero housing equity upon death (Skinner 1996).

Haffner (2008) notes, however, that in reality, the hypothesis is complicated by such factors as capital market imperfections, uncertainties regarding life expectancies and bequest motives. As regards capital market imperfections, Skinner (1996, p.242) points out that housing wealth is only a 'sideshow' if moving costs are high or financial markets do not offer products that facilitate HEW. Under these scenarios,

homeowners are unlikely to tap into their housing equity by moving or withdrawing housing equity in situ even if house prices appreciate significantly.

Bequest motives offer an alternative explanation for the reluctance of homeowners to draw down on their housing equity in later life.[5] However, various studies have cast doubt on the importance of bequest motives in wealth accumulation and divestment decisions. For example, Hancock et al. (2002) highlighted that bequest motives seldom constitute the most important reason driving savings behaviour. Hamnett (1999) goes further by arguing that, at least in the UK, the expectation that homeowners would resist engaging in HEW in order to bequeath their housing wealth to their beneficiaries was not supported by existing data. In Australia, Olsberg and Winters (2005) report a noticeable shift in the values of older Australians, in that they are increasingly prepared to tap into their housing equity to fund lifestyle choices in retirement. This trend has coincided with a weakening of bequest motives among older Australians. Wood and Nygaard (2010) further point out that transfers to children are more likely to occur before one's retirement for children's education expenses, or for their first transition into home ownership.

The evidence increasingly suggests a growing preparedness on the part of those approaching retirement to engage in HEW via the use of flexible mortgage products that have increased the fungibility of housing wealth and now allow homeowners to draw down on housing equity frequently in a relatively less costly manner than compared to the past. Smith (2004) notes that in the UK, a larger proportion of British homeowners aged 45–64 years are now willing to tap into their housing equity during retirement than those aged 65–80 years old. Similarly, as Section 4.3 will show, those newer cohorts of Australian homeowners aged 45–64 years appear to be prepared to carry more mortgage debt into retirement than ever before.

Given these developments, many studies are drawing on the precautionary savings model, which postulates that household wealth plays an insurance role with respect to unexpected financial expenditures as well as other unanticipated adverse events occurring during the life course, such as marital breakdown and ill health (Skinner 1996; Wood & Nygaard 2010). Indeed, multiple empirical studies found that homeowners are more likely to engage in HEW when they suffer from adverse life shocks, which can be financial or non-financial in nature (Skinner 1996; Benito 2007; Parkinson et al. 2009).

2.2 A typology for defining housing equity withdrawal

Housing equity withdrawal (HEW) is an umbrella concept that can encompass a variety of channels through which equity stored in the owner-occupied home is converted from its illiquid form into cash (Klyuev & Mills 2006, republished in 2007 and 2010). This cash can be used for a variety of purposes, including consumption, investment or savings, and gifts. Housing asset-rich but income-poor owner-occupiers may find HEW an attractive way of using their housing equity to supplement incomes (Ong 2008). However, the consequence of engaging in HEW is that it does reduce the amount of housing equity held by property owners.

Traditionally equity withdrawal required either sale of the home, or if a move was undesirable, refinancing which meant taking out a new larger mortgage. Both channels are costly and time consuming methods of equity extraction. However, financial deregulation and rising house prices in the 1980s and 1990s was accompanied by new innovations that allow in situ mortgage equity withdrawal

[5] This theory does of course predict that homeowners without children will progressively cash in on their housing equity, in line with the proposition put forward by the traditional life cycle model (Wood & Nygaard 2010).

(MEW). The homeowner can now use flexible mortgage products that allow the release of housing equity by simply adding to existing mortgage balances using the home as collateral (Smith & Searle 2008). There is no costly application process; these products turn housing wealth into an 'ATM' with borrowers drawing down or adding to their housing equity as and when they choose.

In this section, we outline a typology for defining HEW, aided by a graphical representation in Figure 1. We begin by distinguishing between two key forms of HEW based on whether the equity withdrawal is made possible through a sale of the primary home, or through an in situ withdrawal. There are typically two parties in a HEW transaction—the equity extractor and the provider of cash. Under the sale model, the equity extractor is the homeowner who sells his or her home to withdraw housing equity, while the provider of cash is simply the party that purchases the sold property. Under the in situ MEW model, the equity extractor is the homeowner who adds to the mortgage loan while remaining in situ; here the homeowner extracts equity by functioning as a borrower, while the cash provider is the lending institution that originates the mortgage loan.

It is noteworthy that certain HEW products, such as reverse mortgages, are generally only available to homeowners aged around 60 years and over. However, the ABS (1995) classifies those aged 45 years and over as having passed their prime working years. It is reasonable to therefore infer that asset accumulation and divestment decisions will become more critical from age 45 onwards. Furthermore, as mentioned in Section 1.2, the ageing of the baby boomers will no doubt influence every domain of Australian public policy as they increasingly dominate changing trends in needs, attitudes and preferences. These baby boomers are currently concentrated in the 45–64 years age group.[6] Hence, we will also incorporate discussions on products that are more widely available to the general population and therefore accessible by baby boomers, such as home equity lines of credit (HELOCs).

2.2.1 Sale of the home

Sell and move

When a home is sold, the equity stored in the home, defined as the sale price of the home less the debt owed against it, is released. The sale of one's home is typically followed by a move into another dwelling. This 'sell and move' model permits withdrawal of housing equity in one of three ways. First, a homeowner may trade down into a less expensive dwelling and choose to hold less equity in the new home. A move to a less expensive dwelling is also called downsizing.

A more complicated scenario ensues when the sale of the old home is followed by the purchase of a more expensive dwelling. HEW could still occur if over-mortgaging takes place, that is the homeowner takes out a larger loan on the more expensive home such that the homeowner holds less housing equity after the move.

Finally, the 'sell and 'move' transaction can also occur via an exit from owner occupation into rental housing.

To distinguish between these three 'sell and move' options, consider the following hypothetical example of a homeowner who sells his or her primary home, valued at $400 000. Suppose the debt secured against this home at the point of sale is $150 000. The equity held in this home is therefore $250 000, the difference between the value of the home and the debt secured against it.

[6] Baby boomers are usually defined as those born during the post-war years of 1946–65 (ABS 1999).

Suppose this homeowner buys a house at the lower price of $320 000 and secures the same mortgage debt ($150 000) against the purchased home. Housing equity after the move is thus $170 000, which is less than the pre-move equity of $250 000. The amount of equity withdrawn via trading down or downsizing is then $80 000.

Now assume that this homeowner buys a house for $430 000 which is more expensive than the old home. Suppose a mortgage debt of $200 000 is secured against the purchased home, that is s/he takes out a debt that is greater than the debt secured against the old home. The net amount of equity withdrawn via over-mortgaging is therefore $20 000, as post-move housing equity ($230 000) is $20 000 less than pre-move housing equity ($250 000).

The last option, exit into the rental sector, is much simpler with equity withdrawn equal to the amount held at sale ($250 000).

Sell and stay

Housing equity withdrawal (HEW) via sale of one's home can also occur via a 'sell and stay' model, under which the seller receives funds from the cash provider which amount to less than the market value of the dwelling, but is granted the right to continue living in the dwelling after the sale has occurred (ASIC 2005; VEH 2012). 'Sell and stay' options are typically executed through home reversion schemes. The Australian Securities and Investments Commission (ASIC 2005) notes that there are at least two main types of products that fall under the home reversion scheme in Australia—sale and leaseback and sale and mortgage (ASIC 2005).

Under the sale and lease back model, the title of the property passes to the cash provider upon sale of the property, who in turn leases the property back to the seller after the sale.[7] Under the sale and mortgage model, the owner-occupier sells a percentage of the property to the cash provider. However, the title of the property is retained by the owner-occupier, who gives the provider a mortgage (in the sense of collateral) over the property which implies that permission of the cash provider must be sought in relation to all financial transactions pertaining to the property (ASIC 2005).

The boundaries between products are not always clear-cut, and indeed, products with the same name may differ in characteristics across countries. Another variant of the 'sell and stay' model, under which the property title does not pass fully to the cash provider upon sale, involves selling part of the dwelling or selling it incrementally. These mechanisms are generally known as staircasing down in shared equity schemes, implying that the original owner begins renting increasingly bigger portions of the dwelling as time passes (Monk & Whitehead 2010). These options will be omitted from our discussion from this point onwards, because in principle they function to allow the purchaser to build up housing equity incrementally, rather than to assist the party that sells the dwelling incrementally to withdraw housing equity.

2.2.2 In situ mortgage equity withdrawal

Compared to the traditional sale model discussed in Section 2.2.1, in situ MEW is a relatively new style of HEW made possible by widespread financial deregulation and considerable mortgage production innovation that took place in the 1980s and 1990s.

[7] Note, however, that Reifner et al. (2007a) do not classify the sale and lease back model as a type of home reversion scheme. Instead, they distinguish between a home reversion and sale and lease back model by stating that the former is classified as one of the 'products within the range of private pension schemes' (p.3), while the latter is not, and explaining that rental payments are not necessarily part of the contract under a home reversion scheme, while it would be a key component of a sale and lease back contract.

Their emergence or rather their success was helped along by soaring house prices between the mid-1990s and mid-2000s, and historically low interest rates over the same period.

Stay and not sell

The more conventional forms of MEW involve refinancing an existing loan to withdraw more equity than the existing loan permits, or simply taking out an additional loan, for example a second mortgage, against the primary home. Generally, repayment of these loans begins as soon as the loan is established, usually in the form of regular repayments over the loan tenure.

More recently, flexible mortgages have grown in popularity in countries with well-developed mortgage markets, such as Australia and UK. Broadly speaking, a flexible mortgage is a secured loan that can be repaid in varying instalments while at the same time allowing the homeowner-borrower to access his or her housing equity up to some agreed limit. During the term of the loan, flexible mortgages offer the borrower five key facilities; early repayment of the loan is possible through overpayments and lump sum injections, while HEW is facilitated via lump sum extractions, underpayments or taking payment holidays (Smith et al. 2002). An example of a flexible mortgage product is offset mortgages, available in Australia and the UK, whereby transaction balances are simply offset against a homeowner-borrower's mortgage debt (Klyuev & Mills 2006, republished in 2007 and 2010). Similarly, products such as HELOCs allow homeowners to use a line of credit to borrow funds up to some specified credit limit, using the primary home as collateral.

Hence, in essence, a flexible mortgage operates like an overdraft facility that allows the borrower to add to his or her mortgage without having to undergo any costly application process (typically attached to refinancing or additional loan applications) as long as the borrower remains below a pre-agreed credit limit. The implication is that current cohorts of older homeowners are much more likely to have relatively easy access to HEW than past cohorts, and indeed we find in Section 4.3 that recent cohorts of Australian homeowners aged 45–64 years are much more likely to be carrying mortgage burdens into old age than ever before.

Several types of deferred loans are also available, which essentially allow for MEW to occur by deferring the loan repayment till a later date. For example, under a rollup loan, less interest is paid and/or less capital repayment takes place than normally would be the case. The deferred interest and capital repayments are added to the outstanding mortgage loan balance, hence increasing the loan amount and in effect allowing the homeowner to tap into their housing equity. If the specified date of repayment is not linked to the sale of the property, then in principle it constitutes a 'stay and not sell' option. Similarly, an interest-only loan effectively allows homeowners to withdraw equity from the home by avoiding the need to make capital repayments for a specified loan period.

Stay and sell

An increasingly common MEW product targeted at homeowners aged 60 years and over is reverse or lifetime mortgages (see e.g. Reifner et al. 2007b; Schneider 2009b; The Wriglesworth Consultancy 2011). This product allows borrowers to draw on loans for which repayment is not required until the house is sold, with the sale proceeds channeled towards repayment of the loan. The reverse mortgage lender provides funds to the homeowner borrower in the form of a regular income stream or in lump sums during the term of the loan, and unlike a conventional mortgage, no repayments are made until the borrower dies or the house is sold at the end of the loan term. The outstanding loan balance at the end of the loan term typically comprises the original

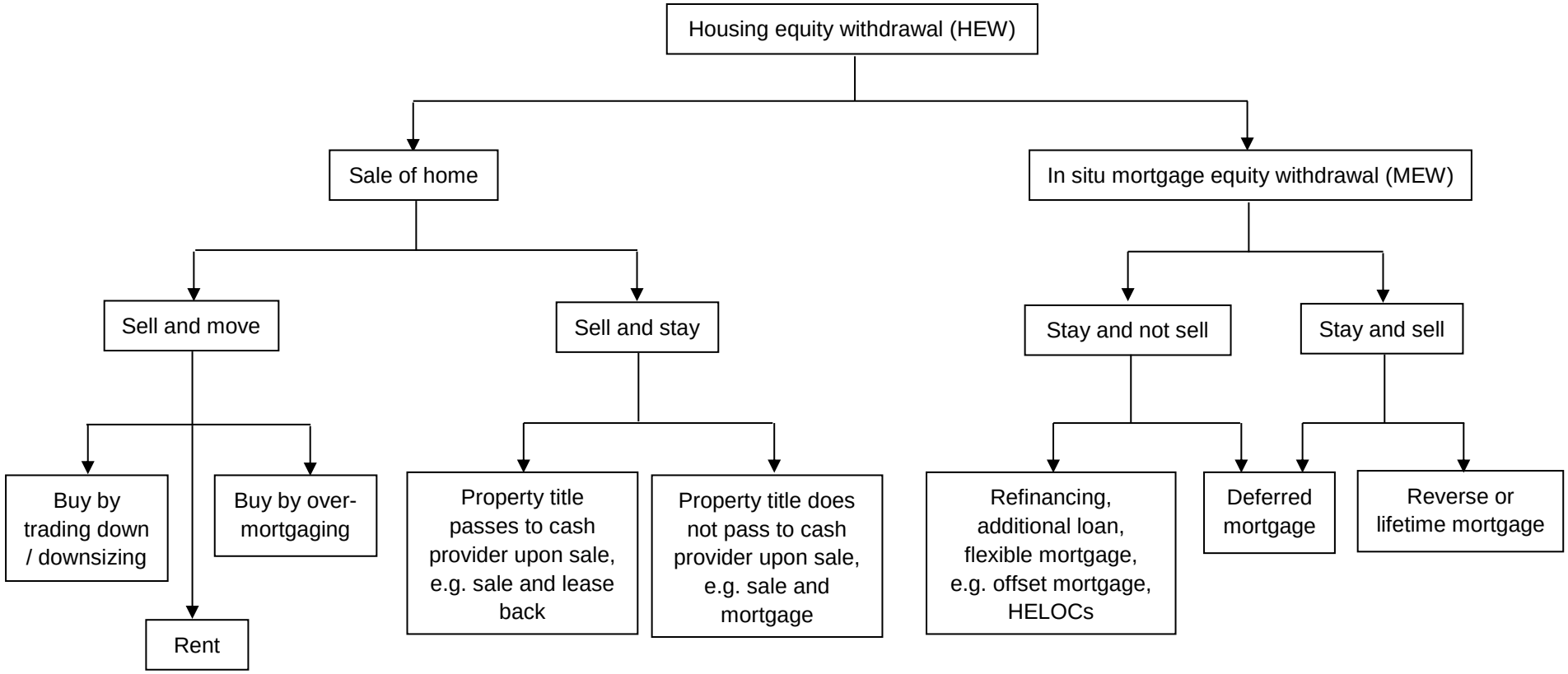
loan amount plus the interest accrued over the life of the loan. The viability of reverse mortgages rests on house prices appreciating sufficiently to offset the outstanding loan balance at the end of the loan tenure (Ong 2008, 2010).

As mentioned previously, deferred loans such as rollup loans essentially allow for MEW to occur by deferring the loan repayment to a future time period. Sometimes, repayment of a deferred loan can be tied to the sale of the property which acts as a collateral for the loan. In such a situation, a deferred loan would fall under a 'stay and sell' option.

In addition, shared appreciation mortgages (SAMs) can be used to reduce the interest that a homeowner-borrower is required to pay, in return for the homeowner-borrower sharing the property's capital gains with the mortgage lender (ASIC 2005). Hence, when the house is sold, some of the equity released will be diverted to the SAM provider instead of to the homeowner.

A typology of these housing equity withdrawal mechanisms is illustrated in the following Figure 1:

Figure 1: Housing equity withdrawal mechamisms—a typology



2.3 Comparisons of alternative HEW mechanisms

2.3.1 Key characteristics of alternative HEW mechanisms

Table 1 summarises the key characteristics of different HEW mechanisms. It is clear that sale of the home does occur at some point if equity is to be withdrawn under the sale option. Those who opt to 'sell and move' or 'sell and stay' must transfer their ownership rights at the beginning of the contractual relationship which initiates the HEW process. As mentioned previously, however, some products such as sale and mortgage allow the seller to retain partial rights over the property. Under reverse mortgages (and certain types of deferred mortgage loans), sale of the home also occurs, though the transfer is usually deferred until the end of the loan term. Hence, these types of mortgage can be regarded as a form of 'stay and sell' model, as the loans are conditional on the house being sold at the end of the loan term to repay the loan. These forms of HEW contrast with the use of 'stay and not sell' options, which include additional loans, refinancing and flexible mortgages, where no sale of the property need occur.

Equity extractors who use in situ channels retain the right to remain in the home, and in general they retain legal ownership status over their home as well. In contrast, withdrawing equity via selling the home results in the loss of all or some legal rights over the property, though the 'sell and stay' options (home reversion or sale and lease back schemes) do allow the seller to remain in the home.

Legal ownership rights are tied to responsibilities to maintain the property. This implies that in situ MEW borrowers will remain responsible for the maintenance of the home. This contrasts with the sale model, where the sale of the home occurs at the beginning of the contractual relationship. Under this model, while the occupant may remain in the dwelling under the 'sell and stay' model, s/he will not remain owner of the house and therefore generally does not bear responsibility for ensuring that the house is maintained at an appropriate standard. It should be noted that specific contractual clauses may stipulate that the occupant is expected to take reasonable care of the property, though even under this scenario, the occupant's incentive to maintain the property at an appropriate standard will be lower after the sale.

The proportion of equity that can be extracted varies with each HEW mechanism. It is not surprising to find that homeowners are typically able to withdraw up to 100 per cent of their equity via the traditional models such as selling and downsizing or moving into the rental sector. However, less can be withdrawn under the 'sell and stay' model. ASIC (2005) notes that the amount withdrawn via home reversion would be typically between 35 per cent and 60 per cent of the market value of the home. In situ MEW can only be operationalised through mortgage products; the existence of lenders' risks and loan servicing fees imply that lenders will not typically allow the homeowner-borrowers to withdraw up to 100 per cent of their equity. For example, the maximum loan advance that lenders are typically willing to make to Australian reverse mortgage borrowers range from 15 per cent to 40 per cent of housing equity, increasing with the age of the borrower (Hickey et al. 2007). While equity amounts generally must be withdrawn as lump sums when the home is sold, mortgage products offer more flexibility because borrowers may request that funds be released as lump sums or small amounts in a regular income stream or under a line of credit arrangement.

Table 1: Comparisons of the characteristics of alternative HEW mechanisms

Key characteristics	Sale of the home				In situ MEW	
	Sell and move[a]			Sell and stay	Stay and not sell	Stay and sell
	Buy and trading down	Buy and over-mortgage	Rent			
Key parties						
Equity extractor	Seller of home	Seller of home	Seller of home	Seller of home	In situ homeowner-borrower	In situ homeowner-borrower
Provider of cash	Buyer of home	Buyer of home	Buyer of home	Insurance company or other providers such as a reversion company	Lending institution, e.g. bank, mortgage lender or broker	Lending institution, e.g. bank, mortgage lender or broker
Timing						
Timing of sale of the home from which equity is withdrawn	Beginning of contractual relationship which initiates the HEW process	Beginning of contractual relationship which initiates the HEW process	Beginning of contractual relationship which initiates the HEW process	Beginning of contractual relationship which initiates the HEW process	Not applicable	End of contractual relationship which facilitates the HEW process
Repayment of mortgage	Not applicable	Not applicable	Not applicable	Not applicable	During occupation phase	At the end of the loan tenure from sale proceeds
Equity extractors' rights and responsibilities in regard to the home from which equity is withdrawn						
Remain in dwelling?	No	No	No	Yes	Yes	Yes
Retain rights over the home?	No	No	No	No, if the property title passes fully to the cash provider. However, if the title does not pass fully to the cash provider, some property rights are retained	Yes	Yes

Key characteristics	Sale of the home				In situ MEW	
	Sell and move[a]			Sell and stay	Stay and not sell	Stay and sell
	Buy and trading down	Buy and over-mortgage	Rent			
Responsible for maintenance?	No	No	No	No, the provider of cash is ultimately responsible, unless contractual clauses stipulate that this is the responsibility of the occupant	Yes	Yes
Equity characteristics of HEW						
Amount of equity withdrawn (before application of taxes or other costs	100%	Typically less than 100% due to over-mortgaging	100%	Typically less than 100%	Typically less than 100%	Typically less than 100%
Form in which cash is provided	Lump sum	Lump sum	Lump sum	Regular stream or lump sum	Regular stream, lump sum or line of credit	Regular stream, lump sum or line of credit

Note:

a. The primary purpose of the table is to provide details of each HEW mechanism that is directly relevant to the process of HEW (not after it). Hence, the table does not provide details on the rights and responsibilities that the equity extractor will obtain after s/he moves into a new dwelling.

Source: Own elaboration based on ASIC (2005), Bridge et al. (2010), CFPB (2012), Fornero et al. (2011), Reifner et al. (2007a, b), Smith and Searle (2008), Vorms (2009)

2.3.2 Costs of alternative HEW mechanisms

Costs borne by equity extractors vary for different forms of HEW, as Table 2 shows. Mortgage products generally have servicing fees attached to them. However, those who opt for the traditional sale model will typically incur moving costs, as well as lump sum taxes. These taxes may operate as a barrier to equity withdrawal (Reifner et al. 2007a; see also Angelini & Laferrère 2011).

As indicated in Table 2, the equity extractor may incur Capital Gains Tax (CGT) upon sale of the old home. If CGT is applicable, it will affect the amount of equity available for withdrawal under the sale model. As CGT can often be deferred if the sales proceeds of the old house are reinvested in a new dwelling, it will be payable on the final sale of a house by the same consumer (Oxley & Haffner 2010; Yates 2012). Thus, if the option of selling to move into the rental sector or home reversion is exercised, CGT is payable. It is worth mentioning that CGT can also be incurred when a property is sold at the end of a reverse mortgage or deferred loan (though this occurs at the end of the HEW period rather than at the point that HEW starts). The broad consequence is that the equity extractor will have to pay the tax directly out of the sales proceeds leaving less equity available for other purposes.

If the equity extractor were to purchase a new home by trading down or over-mortgaging, s/he would face transaction taxes upon purchase of the new dwelling (e.g. stamp duty in Australia). Hence, some of the equity extracted from the old dwelling will be used to meet these transaction taxes. Even under a ‘sell and stay’ scenario, a transaction tax may affect the amount of equity that can be extracted indirectly, as the provider of the funds will have to pay the transaction tax.

However, it is important to note that the applicability of these taxes may differ across jurisdictions. For example, the sale of the primary home is exempt from CGT in Australia. Hence, the issue of taxation is discussed further in Chapter 3, when cross-country comparisons are made. Last but not least, it must be kept in mind that other taxes may apply. For example, in countries such as the Netherlands, personal income tax is levied annually on the return (imputed interest income or dividend) from the sales proceeds saved or invested, while equity is not taxed as long as it is embodied in the principal home (Haffner 2002). Similarly, regular payments drawn from housing equity may be regarded as income in some instances and therefore incur income tax (Reifner et al. 2007a).

Table 2: Comparisons of the financial costs of alternative HEW mechanisms

Key characteristics	Sale of the home				In situ MEW	
	Sell and move[a]			Sell and stay	Stay and not sell	Stay and sell
	Buy and trading down	Buy and over-mortgage	Rent			
Loan servicing fees	Not applicable	Not applicable	Not applicable	Not applicable	Yes	Yes
Moving costs	Yes	Yes	Yes	Not applicable	Not applicable	Applicable on sale at the end of the loan tenure
Taxes incurred by equity extractor	CGT on sale. The equity extractor will typically incur transaction or conveyance tax upon purchase of the new dwelling as part of the HEW process.	CGT on sale. The equity extractor will typically incur transaction or conveyance tax upon purchase of the new dwelling as part of the HEW process.	CGT on sale	CGT on sale	Not applicable	CGT on sale at the end of loan tenure
Taxes incurred by cash provider	Transaction or conveyance tax on purchase of property	Transaction or conveyance tax on purchase of property	Transaction or conveyance tax on purchase of property	Transaction or conveyance tax on purchase of property	Not applicable	Not applicable

Note:

a. The primary purpose of the table is to provide details of each HEW mechanism that is directly relevant to the process of HEW (not after it). Hence, the table does not provide details on the rights and responsibilities that the equity extractor will obtain after s/he moves into a new dwelling.

Source: Own elaboration based on ASIC (2005), Bridge et al. (2010), CFPB (2012), Fornero et al. (2011), Reifner et al. (2007a, b), Smith and Searle (2008), Vorms (2009)

2.3.3 Risks of alternative HEW mechanisms

In housing and mortgage markets, homeowners are exposed to various sources of risk. In this section, we restrict our attention to risks that are directly associated with HEW, in particular, interest rate risk, house price risk and negative equity risk, as summarised in Table 3.

Firstly, mortgage loan borrowers may be vulnerable to interest rate risk. An increase in the interest rate might affect the borrower's ability to make loan repayments. If the interest rate is fixed, borrowers may find themselves paying too much for a loan during periods when interest rates are falling. When homeowners engage in in situ MEW or over-mortgaging, they are increasing the amount of loan secured against their home, hence increasing their exposure to interest rate risk.

Secondly, while it is true that all homeowners are exposed to some degree of house price risk; unexpected fluctuations in dwelling price can result in abnormal capital losses (or gains) (Reifner et al. 2007a). However, in recent years, homeowners have become increasingly exposed to house price risk, given the volatility experienced in housing markets worldwide. Engaging in MEW at a time of housing market volatility can expose equity extractors to greater levels of house price risk, leaving them with a smaller amount of equity at the end of their loan than expected compared with those who choose to avoid MEW in a capricious financial environment. Moreover, an owner-occupier can end up holding negative equity if house prices should fall below the outstanding mortgage debt secured against the home (Reifner et al. 2007a). Thus, exposure to negative equity risk increases when one engages in MEW.

Table 3: Risks directly associated with alternative HEW mechanisms that are borne by equity extractors engaging in HEW

Key risks	Sale of the home				In situ MEW	
	Sell and move[a]			Sell and stay	Stay and not sell	Stay and sell
	Buy by trading down	Buy and over-mortgage	Rent			
Interest rate risk	No, with respect to the sold dwelling	No, with respect to the sold dwelling	No	No, the risk is passed on to the provider of cash	Yes	Yes
House price risk	No, with respect to the sold dwelling	No, with respect to the sold dwelling	No	No, the risk is passed on to the provider of cash	Yes	Yes
Negative equity risk	No, with respect to the sold dwelling	No, with respect to the sold dwelling	No	No, the risk is passed on to the provider of cash	Yes	Yes, unless the borrower is protected by a no negative equity guarantee

Note:

a. This table does not account for risks incurred with respect to the new dwelling and possibly the new loan by those who trade down or over-mortgage. If a new dwelling is purchased, it will be subject to house price risk. Furthermore, if a mortgage is taken out on the new dwelling, negative equity and interest rate risks will be present. Only in the case of renting will the equity extractor be protected from all these risks.

Source: Own elaboration

2.4 Summary

This chapter has drawn from the international literature to describe the broad theoretical frameworks that underpin research into HEW in an ageing population. A typology has been developed, which provides a broad conceptual framework for systematically describing and comparing various HEW mechanisms. We have distinguished between two key forms of HEW based on whether the equity withdrawal is made possible through a sale of the primary home, or through in situ MEW.

Broadly speaking, the sale method of withdrawing housing equity is affected by the levying of taxes when properties are sold and bought, such as CGT and conveyance tax on the purchase of property. On the other hand, in situ MEW appears to be susceptible to more forms of risks than the 'sell and move' mode. These risks include interest rate risk, house price risk and negative equity risk. It is worth highlighting that the risks attached to the 'sell and stay' model appear to be minimal, but home reversion products are not offered widely in many countries (see Sections 3.2 to 3.7) and in some instances, may result in a lack of tenure security for the occupier (see, e.g. sale and lease back products in the UK as described in Section 3.3).

This chapter has provided broad generalisations in relation to the characteristics, costs and risks of alternative forms of HEW. This has been necessary in order to conceptualise HEW and develop a typology according to key themes that have emerged in the literature in relation to the different styles of HEW. However, the pervasiveness and effectiveness of alternative styles of HEW will vary across countries as they will be dictated to some extent by differences in institutional settings. For example, 'sell and move' options may be affected by the size and quality of the rental sector in a country. Hence, the next section will report findings from a series of country-specific reviews that will highlight the influence of divergent institutional settings on HEW by older homeowners.

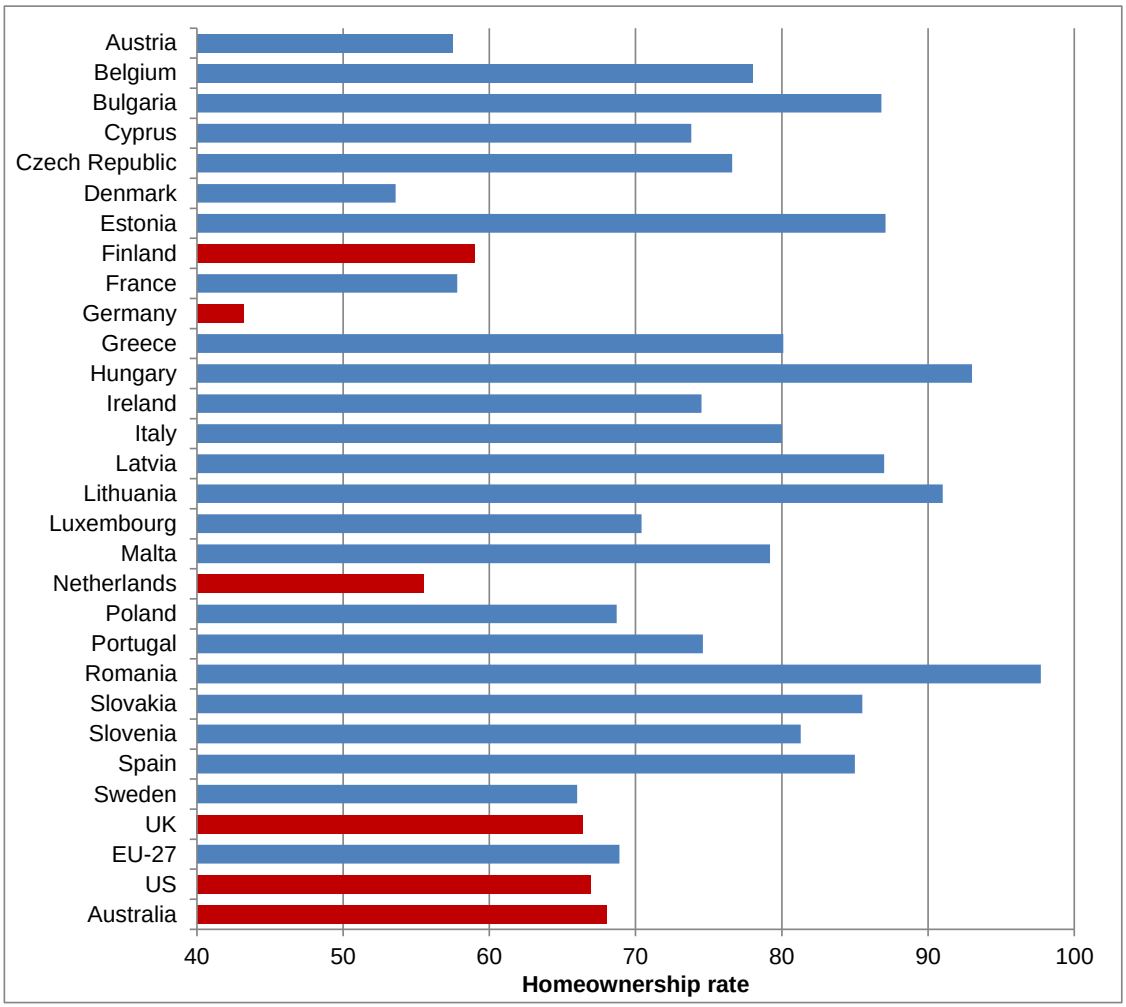
3 HOUSING EQUITY WITHDRAWAL: A CROSS-COUNTRY COMPARISON

This chapter presents the results of a selective international survey focusing on HEW mechanisms that are available in six developed countries: Australia, UK, United States (US), Netherlands, Finland and Germany. The purpose of reviewing countries other than Australia is two-fold. First, by comparing developments in HEW in Australia against other countries, we are able to evaluate the extent to which the institutional environment in Australia supports or discourages the use of HEW by older Australians as opposed to countries with different institutional settings. Secondly, the international review will form an essential base upon which we can canvass products or schemes that may mitigate the risks of HEW to address our fourth research question in the next stage of our research.

3.1 Selection of countries

The selection of countries was based on three criteria. The first criterion is based on a country's home ownership rate; the rationale being that owner-occupation in a country has to be prevalent in order for the population to develop distinct attitudes and views towards the use of housing equity in retirement (Haffner 2008). Figure 2 shows the home ownership rates of 27 countries in the European Union (EU), Australia and the US. Most countries have relatively high rates of home ownership that exceed 50 per cent. Germany's home ownership rate is noticeably lower, at a little above 40 per cent.

Figure 2: Home ownership rates, most recent year available [a b]



Notes:

a. The countries that are reviewed in our study have been depicted using red bars.

b. Schwartz and Seabrooke (2008) also provide home ownership rates for OECD countries. Their estimates are comparable to the ones reported in this figure.

Sources: EMF (2010); Australian home ownership rate from Oxley et al. (2010)

The second criterion is based on the maturity and depth of mortgage markets in each country. We expect that the existence of well-developed mortgage markets is necessary in order for MEW to flourish. On the other hand, in countries with less developed mortgage markets, HEW via sale of the primary home might be more prevalent given limited mortgage products that facilitate MEW without the homeowner having to move. The size of a country's mortgage market in relation to its GDP can be used as a general proxy for the extent of development of mortgage markets in the country, that is the more developed a country's mortgage market, the bigger its expected share of GDP. Figure 3 lists the share of outstanding mortgage loans as a proportion of GDP for a range of countries in the EU, as well as Australia and the US. As shown in the figure, the Netherlands, Australia, UK, US, Ireland, Sweden and Denmark all have mortgage shares that exceed 75 per cent of GDP, and have noticeably higher mortgage shares than the EU-27 average of 52 per cent. Mortgage shares in the Netherlands and Denmark exceed 100 per cent of GDP, while Germany can be found at the other end of the spectrum, if only the Western countries are taken into consideration.

Other measures indicating the extent of mortgage markets are available in the literature. For example, Tsatsaronis and Zhu (2004) point out five aspects of the mortgage market that can affect its development. Firstly, the study argues that in countries where mortgage contracts are largely based on variable interest rates, borrowers may have more flexibility to take on bigger mortgage loans while keeping interest repayments relatively low if interest rates are declining. Secondly, the availability of developed MEW mechanisms is an indicator of a well-developed mortgage market. Thirdly, higher loan-to-value ratios (LVRs) reflect greater ability by banks to lend using housing as collateral. Fourthly, countries where property valuation methods are based largely on market values rather than historical values are better able to keep up with changing market trends. Finally, the presence of mortgage-backed securities also point to a relatively well-developed mortgage market.

Chiuri and Jappelli (2010) have subsequently developed an index of mortgage market regulation based on the five criteria specified by Tsatsaronis and Zhu (2004) as a proxy for limited mortgage market development for a range of countries, which include Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Sweden, UK and US. The index ranges from 0.1 (representing a well-developed mortgage market) to 0.9 (representing very limited mortgage market development). As shown in Table 4 of Chiuri and Jappelli (2010), Australia and the UK were assigned an index of 0.1, and therefore classified (along with Ireland) as featuring the most developed mortgage markets among all the countries studied. The US was assigned an index of 0.3, which also indicated that it had a relatively well-developed mortgage market. In the intermediate range, Finland and Netherlands were assigned an index of 0.5. At the upper end, Germany's index was 0.7, representing increasingly limited mortgage market development.[8]

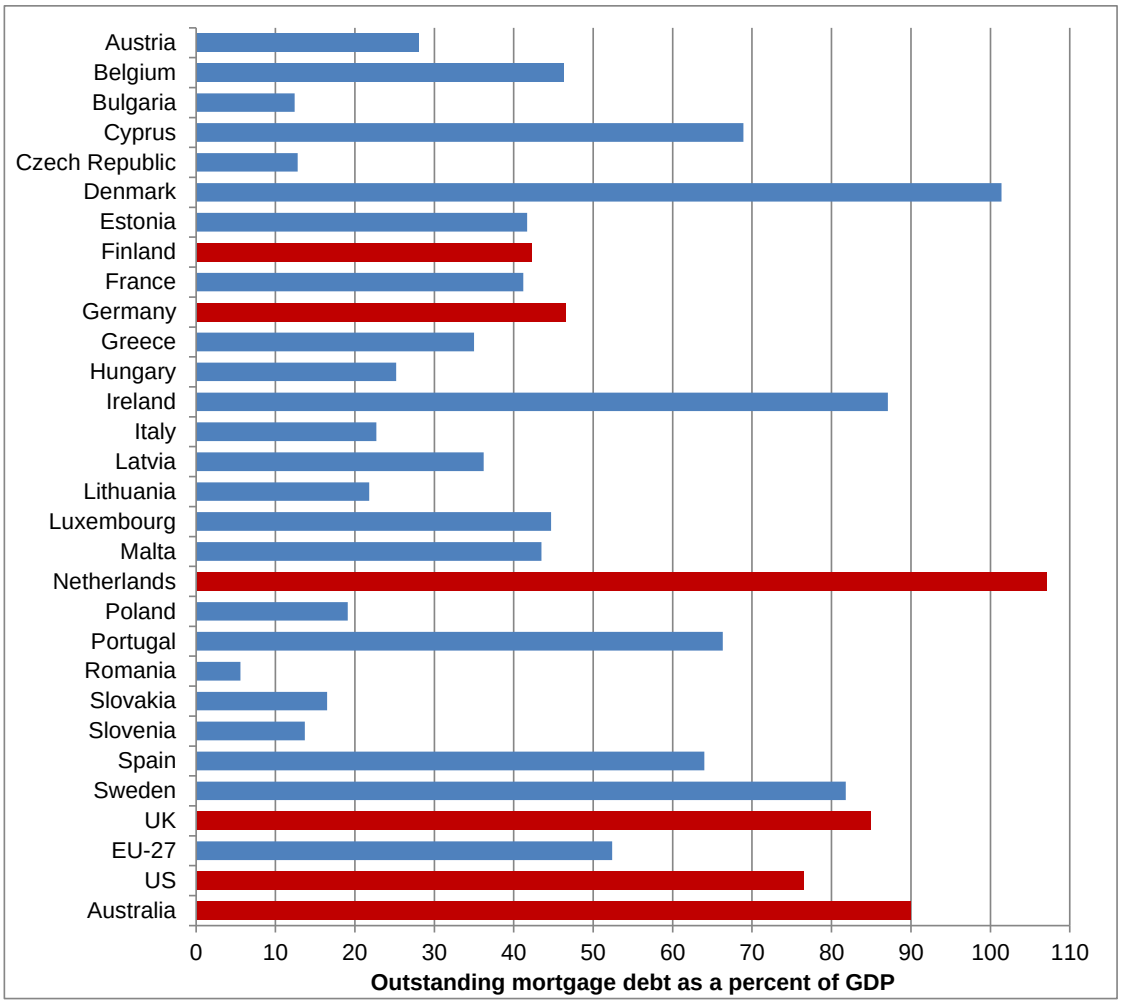
The picture provided by Figure 3 appears to be largely supported by these indexes. As shown in the figure, Australia and the UK have the high outstanding mortgage debt to GDP share of over 80 per cent; at the same time they rank as having the most well-developed mortgage markets according to Chiuri and Jappelli's (2010) indexes. This is followed by US, which has a debt to GDP share of over 70 per cent while being assigned the next lowest index of mortgage market regulation by Chiuri and Jappelli (2010). Finland and Germany have the lowest debt to GDP share of 40–50 per cent among the six countries reviewed, and indeed they are also classified has having relatively limited mortgage market development according to Chiuri and Jappelli (2010).

Interestingly, however, while the Netherlands have a mortgage debt to GDP share exceeding 100 per cent, they are classified as a relatively limited mortgage market by Chiuri and Jappelli (2010). The indexes have been constructed based on somewhat older 2001–03 data reported in Tsatsaronis and Zhu (2004), during which the Netherlands mortgage market predominantly offered fixed rate mortgages and relatively low average LVRs of 75 per cent. A more up-to-date index by the International Monetary Fund (IMF 2008) ranks the Netherlands third in terms of the extent of mortgage market development, after the US (0.98) and Denmark (0.82) but before Australia (0.69). This index is constructed somewhat differently from Chiuri and Jappelli (2010). For instance, the IMF (2008) index takes into account fee-free prepayment of loans relevant for refinancing, but not fixed or variable interest rates. The IMF index is also based on more recent data for the period 2003–06, during which the Netherlands had an LVR of 90 per cent, the highest among all the countries considered by the IMF. These inconsistencies indicate that the method by which the

[8] Austria, Belgium and Italy were all assigned an index of 0.9, representing even more limited mortgage market development.

index is constructed, as well as the time period of the underlying data, can influence country rankings. Nonetheless, it is obvious that LVRs in the Netherlands have climbed in recent years, and by 2010 the mortgage market in the Netherlands has exceeded 100 per cent of GDP.

Figure 3: Share of outstanding mortgage loans in GDP, 2010 [a b c]



Notes:

a. The countries that are reviewed in our study have been depicted using red bars.

b. The amount of outstanding mortgage loans for the Netherlands is overestimated as the savings options connected to endowment loans are not included.

c. The mortgage shares for Australia are for the year 2009. Schwartz and Seabrooke (2008) estimate the residential mortgage shares for Australia to be over 300 per cent of GDP, rather than the 90 per cent reported in this figure. Estimates for other countries are more similar across Schwartz and Seabrooke (2008) and our study. Nonetheless, the estimates from both concur in the sense that they show that Australia has one of the highest outstanding mortgage debt as a share of GDP among developed countries.

Sources: EMF (2010); Australian mortgage shares from IMF (2011)

These criteria suggest that Australia, UK, US and the Netherlands should be included in the group of countries that are reviewed. All have relatively high rates of home ownership (>60%) and large mortgage markets compared to other EU countries (>75% of GDP). Furthermore, Australia functions as the home country for this study, and the US is the country where reverse mortgage schemes started in the 1980s. The UK is a European liberal welfare state with a developed mortgage market where at the same time a significant amount of MEW has taken place (Reifner et al. 2007a, b).

Overall, the literature contains ample evidence pointing to a proliferation of in situ MEW in these three countries. For example, Greenspan and Kennedy (2007) estimate that in the US, in situ MEW accounted for 80 per cent of the rise in home mortgage debt from 1990 to the mid-2000s. Ong et al. (2013) confirm that in situ MEW is by far the most frequent form of equity withdrawal in both Australia and the UK, accounting for 90 per cent of HEW transactions in both countries over the period 2001–08. The Netherlands has the biggest mortgage market relative to GDP (IMF 2008) offering a variety of mortgage lending options (see, e.g. Klyuev & Mills 2006, republished in 2007 and 2010). Moreover, it has an increasing home ownership rate, especially since the 1990s (Dol & Haffner 2010) and has been closing in on the 60 per cent share that has been easily attained in Australia, US and UK.

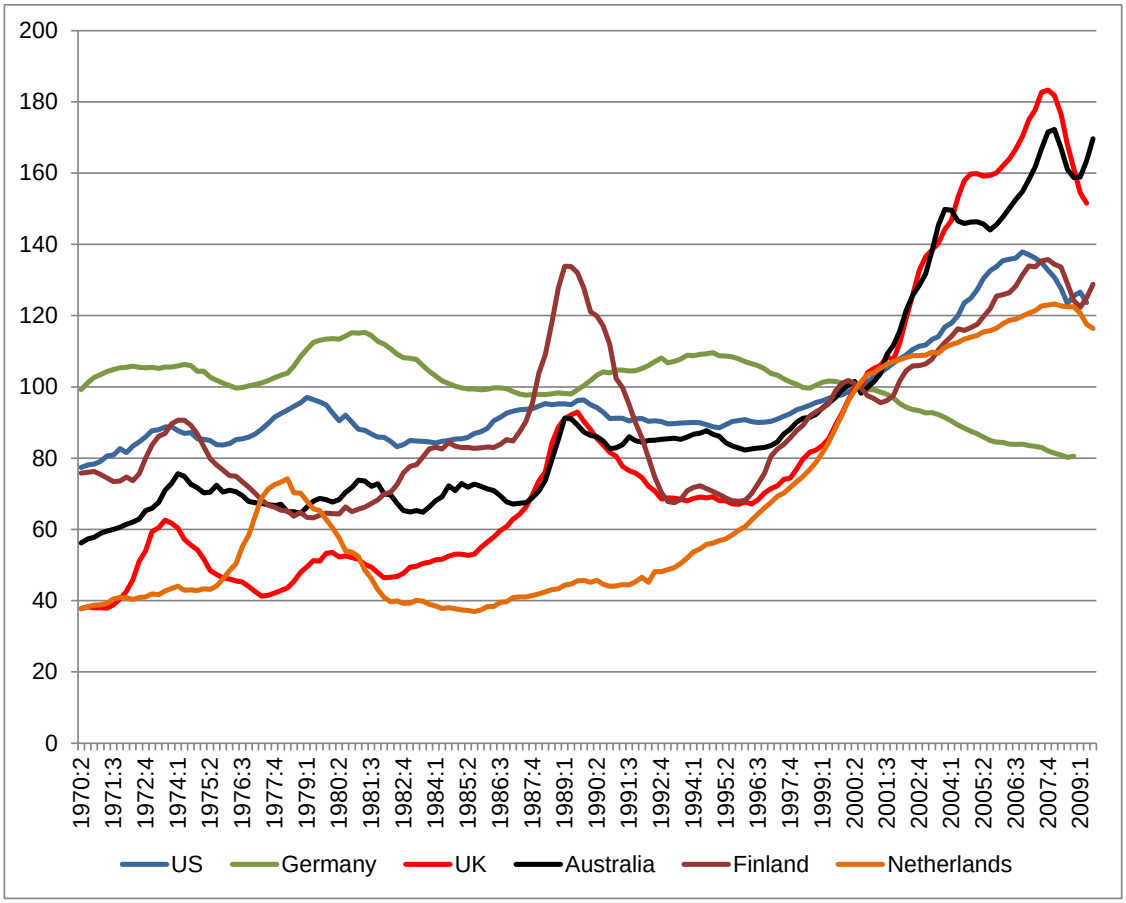
Our third criterion is based on the need to achieve diversity in the selection of countries. We therefore include Finland and Germany as the last two countries in our study. Home ownership is the major form of housing tenure in Finland (almost 60%) as in the Anglo-Saxon countries, but its mortgage market is much smaller. This could be due to the extent of regulation; Finland's financial markets are more regulated than other countries, and typically feature low LVRs, short average loan terms and the absence of fee-free prepayment of mortgage loan (IMF 2008). The inclusion of Finland will allow us to examine whether the sale of the home is a more popular form of HEW than in situ MEW when a country has less developed mortgage markets.

Germany is an interesting contrast because it has the smallest share of home ownership (complemented by a well-functioning rental market), and a relatively small and regulated mortgage market that is comparable to Finland's. Hence, Germany makes for an interesting case study to address the question of whether German homeowners are more willing than in other countries to sell up and move into the rental sector in order to release housing equity when needed.[9]

A key advantage of incorporating countries with divergent institutional settings is that the influence of institutional context on decisions surrounding the use of housing equity in later life can be uncovered. Figure 4, which displays the long-run growth in real house prices during the last 40 years, illustrates this point effectively. Real house prices have soared in countries such as Australia and the UK, but more moderately so in the US, Netherlands and Finland. However, real house prices have in fact declined somewhat in Germany over the long-run, starting the period with the highest real house prices, but ending it with the lowest. Australia and Germany, therefore present two interesting contrasts when assessing the extent and forms of HEW, as well as attitudes to its uses in later life.

[9] Ong et al. (2013) finds that in countries with high homeownership rates and well-developed mortgage markets, such as Australia and the UK, the willingness of homeowners to sell up and rent in order to withdraw housing equity is very low compared to their willingness to engage in MEW.

Figure 4: Real house price index of the six countries under study, 1970 to most recent quarter available



Source: OECD Economics Department house price database; for a description of sources see Girouard et al. (2006)

Furthermore, a comparison of the CGT and transaction taxes in Table 4 across the six countries reveals some interesting institutional differences. As discussed previously, the extent of taxation applied on transactions involved in HEW will affect the overall cost of HEW. In the six countries under study, Table 4 shows that a transaction tax is applied in all countries. CGT is payable in the UK and Finland, if the dwelling is sold relatively quickly after acquisition. It is also payable in the US, but with an exclusion up to a certain amount for the primary residence. On the other hand, the sale of the primary home is CGT-exempt in Australia and it is not taxed in the Netherlands.

Table 4: Transaction tax on acquisition of dwelling and capital gains tax on sale of dwelling in six countries under study, latest year available [a]

Country	Transaction tax		Capital gains tax on sale of the primary home
	Exists	Rate	Exists
Australia	Yes (2010)	0%–more than 5% (2010–11), depending on state or territory	No (2010)
Finland	Yes (2009)	4% (2009)	Yes (2006) Only when sold before two years have passed after acquisition
Germany	Yes (2009)	3.5% on acquisition (2009)	Yes (2007) Only when sold before 10 years have passed after acquisition
Netherlands	Yes (2009)	6%[a] acquisition (2009)	No (2009)
UK	Yes (2010)	1%–4% on sale (2009)	No (2011)
US	Yes (2009)	0.01%–2.2% (2009)	Yes (2007), but exclusion, up to $250,000 ($500,000 for a married couple filing jointly) of capital gains on the sale of real property. The owner must have used the house as primary residence for two of the five years before the date of sale.

Note:

a. Temporarily reduced for dwellings as of 15 June 2011 to 2 per cent; permanently reduced per 1 July 2012 <http://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/woning/eigen_woning/overdrachtsbelasting/> (last accessed 17 December 2012).

Source: OECD (2007) for US (CGT); Cnossen (2010) for rates of transaction tax of European countries; NSW Treasury (2010) for rates of transaction tax in Australia; Wood et al. (2010b) for Australia (both taxes); Oxley and Haffner (2010) for Germany, Netherlands, UK (transaction tax) and US (transaction tax); Jones et al. (2012) for UK (CGT); Yates (2012) for Finland (CGT)

Sections 3.2 to 3.7 present country-specific literature reviews of the six countries selected for our study. In each section, we begin by presenting the most up-to-date information we are able to access from the literature from comprehensive cross-country HEW studies such as Reifner et al.'s (2007a, b) extensive study on equity release schemes (ERS) in the EU, as well as any other cross-country or country-specific literature we can obtain. The focus of the country reviews is on developments in this century with a few excursions into the past, but only if the historical context is deemed useful to enhance understanding of the more recent developments.

Each country review will canvass three critical spheres of enquiry. Firstly, we will review the development and importance of the market for MEW products in each country. Secondly, we will assess the popularity of the sale model in each country, as well as its importance relative to MEW. Thirdly, as anticipated during our country selection process, the pervasiveness of each style of HEW will likely depend on the extent of development as opposed to regulation of mortgage markets, as well as other institutional factors such as taxation settings in the financial markets of each country. Hence, we will also canvass what is known about the uses of housing equity in later life. Here, an important policy question we seek to shed light on is whether housing is

increasingly being relied upon as an asset base for welfare and, if so, the extent to which its role is influenced by the generosity of pension regimes in each country.

As much as possible, our focus will be on MEW and sale methods of HEW by older homeowners. For example, Reifner et al. (2007a, b) will be drawn upon heavily in our review of HEW markets in the four European countries. Reifner et al. (2007a, p.I) define an ERS as one that is a financial service, a source of liquidity for the future that entitles the equity extractor to remain in occupation of the home, and generates income in retirement. The study specifies that these ERS are restricted to products such as reverse or lifetime mortgages and home reversion schemes which are specifically targeted at those who are typically in later stages of the life course. However, in some instances we have referred to the MEW and sale methods in terms of its use by the general population, where information specific to older homeowners has been unattainable. As mentioned in Section 2.2, we are interested in HEW by a broad group of homeowners aged 45 years and over. However, the definition of 'older' will vary from study to study in the existing literature. Where possible, we have tried to define the age group referred to in each study.

3.2 Australia

3.2.1 MEW products

According to Schwartz et al. (2006, republished in 2010), the most common method of HEW is to increase the level of debt secured against a property one already owns, an unsurprising observation given well-developed mortgage markets in Australia. Indeed, as mentioned in Section 3.1, multiple sources confirm that Australia is the most highly-developed mortgage market (along with the UK) compared to other countries included in the study.

With respect to forms of MEW typically used by older Australians, the literature tends to put an emphasis on reverse mortgages (see, e.g. ASIC 2005; Bridge et al. 2010, 2011). During 1993–96, the Australian government subsidised a pilot home equity conversion scheme, but this was discontinued because of its low take-up (Dolan et al. 2005). It was only in the 2000s that the market for reverse mortgages started taking off, a relatively late start compared to other well-developed mortgage markets such as the UK and the US.

Reverse mortgages are currently supplied by a selected number of banks. Bridge et al.'s (2010) study on reverse mortgages reported that there were seven Senior Australians Equity Release Association of Lenders (SEQUAL) accredited lenders who provided five reverse mortgage products in 2008. ASIC (2007) notes that the maximum loan available is age-dependent, but usually constitutes 45 per cent or 50 per cent of property value. The payment options include lump sums, regular payments, or lines of credit and lenders' typically no negative equity guarantees. All these characteristics are consistent with the broad features of reverse mortgages described in Section 2.3. In addition, according to annual research conducted by Deloitte for SEQUAL, the majority of reverse mortgage products in Australia (85% in 2010) are typically characterised by variable rate loans.[10] Deloitte Touche Tohmatsu and SEQUAL further note that almost all reverse mortgages are taken out in the form of lump sum payments (95% in 2010). Furthermore, additional draw downs are possible, as flexible product options such as lines of credit now allow homeowner-

[10] Since 2008, fixed rate loans are no longer available on new reverse mortgage loans in Australia.

borrowers to make discretionary income draws against their reverse mortgage loans (Deloitte Touche Tohmatsu & SEQUAL 2011, 2012).[11]

In 2011, 50 per cent of reverse mortgage customers were couples aged 70–75 years old (Deloitte Touche Tohmatsu & SEQUAL 2012). The second group of homeowners most likely to use reverse mortgages are single women (Deloitte Touche Tohmatsu & SEQUAL 2011).

Contrary to the US where the recent GFC stalled the rapid growth in reverse mortgages that were occurring in the early 2000s, the Australian reverse mortgage market has grown steadily through the GFC years. Between 2005 and 2011, the number of outstanding reverse mortgage loans more than doubled to a total of 42 400. At the same time, the average size of each loan also grew from $51 100 in 2005 to over $78 200 in 2011. The interactions of these two trends meant that, by the end of 2011, the outstanding market size was about 3.3 billion Australian dollars (AUD), a tripling of the figure reported at the end of 2005. It would appear that older Australian homeowners' appetite for HEW through reverse mortgages was not dampened by the GFC in any significant way. However, the level of reverse mortgage settlements of AUD$520 million that occurred during the peak of the house price boom in 2006 has not been achieved since.

Table 5: Statistics on the Australian reverse mortgage market, 2005–11

	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11
Outstanding market size (AUD)	0.9 billion	1.5 billion	2.0 billion	2.5 billion	2.7 billion	3.0 billion	3.3 billion
Number of loans	16,584	27,898	33,741	37,530	38,788	41,600	42,410
Average loan size (AUD)	51,148	54,233	60,000	66,150	69,896	72,474	78,249
Volume of new lending (AUD)	315 million	520 million	466 million	321 million	264 million	322 million	317 million

Source: Deloitte Touche Tohmatsu and SEQUAL (2011, 2012)

In regard to the future of the reverse mortgage market in Australia, existing studies seem to agree that there is potential for further expansion of the market. Bridge et al. (2010, p.1) noted that '(t)he reverse mortgage market in Australia is well established and is expanding. There is, however, potential for further expansion: both in terms of the size of the market and of interest from consumers, and in terms of what the loans are used for'. Earlier surveys, such as Dolan et al. (2005), linked the potential of the market to the retirement of the baby boomer generation, which is occurring at a greater scale now than ever before (see also Olsberg & Winters 2005).

Other MEW products do not seem to have received as much attention in the literature that has studied the role of housing equity in ageing populations. Apart from reverse mortgages, the SEQUAL website also makes mention of another MEW product called accommodation bond loans targeted at older homeowners aged 70 years and over. These are loans with a term of three or five years secured against one's housing equity in order to meet the cost of entry into a residential care facility.[12] Recently, the Productivity Commission (2011) proposed a similar scheme, a government-backed Australian Aged Care Home Credit scheme, under which homeowner-borrowers can

[11] Additional draw downs amounted to around 4.1 per cent of outstanding loans in 2011 (Deloitte Touche Tohmatsu & SEQUAL 2012).

[12] For more information from SEQUAL, see <http://www.sequal.com.au/content/view/19/36/#Accommodation%20Bond%20Loan>.

make flexible draws against their housing equity to meet aged care co-contributions or accommodation costs up to a specified limit. In principle, these MEW options are not necessarily an in situ form of equity withdrawal, as the homeowner-borrower will typically move into a residential aged care facility. However, these products are designed to afford some protection to those remaining in the home, such as one's spouse (who may also be one of the homeowners) or dependent child with a disability.

Although reverse mortgages, accommodation bond loans and the propose¬d Aged Care Home Credit scheme are all targeted at elderly homeowners, other forms of MEW have been available for over two decades, which are not age-dependent. In particular, MEW products were already on offer in Australian markets in the form of flexible mortgages since the 1980s (Moloney & Bor 2003). These flexible mortgages were originally intended for the purposes of stimulating accelerated mortgage repayments from homeowners to save on mortgage interest payments. In 1986, Citibank launched its Mortgage Power product, which Moloney and Bor (2003) describe as the first line of credit product to be introduced in Australia. However, as described in Section 2.2.2, flexible mortgages also allow for HEW. In more recent times, the role of flexible mortgages has changed somewhat, as they are now increasingly being used by Australian homeowners as a style of in situ MEW by allowing for overdrafts to be drawn against one's housing equity in a relatively costless manner (Klyuev & Mills 2006, republished in 2007 and 2010; see Section 2.2.2 for the description of flexible mortgage loans). Smith et al. (2002) note that flexible mortgages are commonly used in Australia, with one-third of homeowner-borrowers[13] holding a current account mortgage, a form of offset mortgage whereby a single account is provided for all transactions so that transaction balances are simply offset against a homeowner-borrower's mortgage debt.

3.2.2 Sale of the home

According to SEQUAL, home reversion products that allow older homeowners to sell off part of their housing equity while remaining in their home are relatively new in Australia. As of December 2012, home reversion products were only available in Sydney and Melbourne for homeowners aged 60 and over.[14]

With regard to selling and moving (as opposed to selling and staying in the primary home via the use of home reversion), Australian homeowners generally exhibit less mobility than tenants, and the tendency to move does decline as one ages (Clark 2011). However, there is growing evidence that newer cohorts of older Australians are increasingly open to the prospect of moving house. Olsberg and Winters (2005) interviewed 7000 Australians aged 50 years and over during 2004–05, and found that 38 per cent of those aged 50–59 years had moved in the last five years. The incidence of moves declines to around 33 per cent in the group aged 60–74 years. It drops further to 25 per cent among the group aged 75 years and over.[15] Furthermore, Olsberg and Winters (2005) reports some interesting statistics on the incidence of downsizing among older homeowners. The study's findings indicate that only around one in 10 homeowners aged 50 years and over will extract housing equity by downsizing, though outright owners are significantly more likely to downsize than mortgagors. Twelve per cent of outright owners interviewed (versus around 5% of mortgagors) had downsized to release funds to supplement income in the last five years.

[13] This figure includes loans taken out by all homeowners.

[14] This information was taken from <http://www.sequal.com.au/content/view/18/35/> (last accessed 4 December 2012).

[15] The majority of the respondents are homeowners. The sample contains around 600 non-homeowners.

There are multiple institutional factors that can affect the propensity to sell and move. Chiuri and Jappelli's (2010) Luxembourg Income Study (LIS) analyses patterns of home ownership among those aged over 50 years in various countries, including the six countries reviewed in this study. Chiuri and Jappelli (2010) propose that the extent of housing wealth decumulation (as proxied by changes in ownership rates) is generally negatively correlated with the extent of mortgage market development. Hence, for this hypothesis to hold true, countries such as Australia and the UK should exhibit lower rates of moves out of the ownership sector than other countries with more highly regulated mortgage markets. The study finds that homeowners aged 75–80 years are indeed less likely to move into renting than countries such as Germany and Finland, where mortgage markets are noticeably more regulated. However, the propensity of wealth decumulation by homeowners aged 75–80 via moves into renting is still greater in Australia than other equally developed mortgage markets such as the UK, indicating that other institutional factors may be at play.

Finally, it should be noted that even though in situ MEW is more commonly used to withdraw housing equity than other forms of HEW, Schwartz et al. (2006, republished in 2010) points out that the average amount withdrawn per transaction is much higher when the equity withdrawal involves a sale of the primary home, than when in situ MEW is used. According to the study, in 2004, more than 4 per cent of households withdrew an average of almost AUD$160 000 (median of around AUD$83 000) via property transactions. In comparison, while the propensity of in situ MEW was higher at 7.3 per cent, the average amount withdrawn via MEW was AUD$35 000 (median of AUD$20 000). While these estimates are for all Australian homeowner households, Schwartz et al. (2006, republished in 2010) notes that the sale of the primary home tends to be associated with HEW among older households, while younger households are more likely to have injected equity when selling a primary home by trading up into a more expensive home.

3.2.3 Uses of HEW

The Reserve Bank of Australia (2003) estimates that aggregate HEW exceeded housing equity injection in the late 1990s. By 2002, net HEW[16] had amounted to about 3.5 per cent of household disposable income. A couple of years later the percentage peaked at more than 5 per cent, before the trend reversed (Schwartz et al. 2006, republished in 2010). Using a different method, Klyuev and Mills (2006, republished in 2007 and 2010) estimated that the amount of HEW was around 15 per cent of disposable income in 2001 to 2005. Ong et al. (2013) reports similar findings; the study found that HEW contributed to 13–15 per cent of gross household income in any one year during the period 2001–08, and note that this represents a sizable addition to the financial resources of Australia's personal sector.[17]

Some studies have specifically attempted to uncover the uses of HEW in mid-to-late life in Australia. For example, Bridge et al.'s (2010) reverse mortgage study conducted focus groups comprised of 16 people and nine interviews by phone. The participants were aged 61–93 years old. ASIC (2007) also conducted in-depth interviews with 29 reverse mortgage borrowers aged 60–85 years. While these sample sizes are not representative of the older home-owning population in Australia, it does give some insights into the range of uses of housing equity by older homeowners.

These studies found that some reverse mortgage borrowers were relying on the equity withdrawn as an asset base for welfare. Bridge et al.'s (2010) study found that the borrowers were using HEW to fund what they considered everyday necessities

[16] Net HEW is the difference between gross equity withdrawals and gross equity injections.
[17] These estimates are for all homeowners.

(e.g. topping up the pension or superannuation income, replacing the car, purchase of small capital items, health care). Similarly, ASIC (2007) reported that 10 (out of 29) borrowers wanted to supplement their income via the reverse mortgage loans. Debt consolidation was another commonly cited reason, especially where borrowers had accumulated significant credit card debt (Bridge et al. 2010). Deloitte Touche Tohmatsu and SEQUAL (2012) also confirmed that reverse mortgage borrowers were mainly using the funds for repaying debts (16%) and supplementing retirement income (15%). Some respondents in the Bridge et al. (2010) study also confirmed that housing equity plays an insurance role with respect to unexpected financial expenditures as well as other unanticipated adverse events occurring during the life course, reporting that they had reserved funds from reverse mortgages to use for 'a rainy day' (p.79). Focusing on those homeowners who downsized, Olsberg and Winters (2005) found that 43 (11) per cent of outright owners (mortgagors) who downsized had done so in order to 'release money to live on' (pp.38–39).

On the other hand, Bridge et al. (2010) also found that some of their study respondents were using the equity withdrawn via reverse mortgages for lifestyle consumption purposes, such as holidays.

A third group were using the withdrawn equity via reverse mortgages to facilitate intergenerational transfers. ASIC (2007) noted that some reverse mortgage borrowers were using the funds released to provide financial assistance to their relatives and for payment of aged care accommodation bonds for their parents. According to a survey of mortgage brokers by Bridge et al. (2010), a reasonably common strategic use of the funds released via HEW among reverse mortgage borrowers was to provide financial assistance to their children. However, Olsberg and Winters (2005) found that only about 5 (2) per cent of outright owners (mortgagors) in their study would downsize to release funds to financially assist their children or other family members.[18]

It is also obvious from the studies that some of the funds withdrawn were being used to improve or maintain the housing stock. ASIC (2007) and Bridge et al. (2010) both reported that home maintenance or renovations were often cited as uses of the housing equity withdrawn via reverse mortgages. Deloitte Touche Tohmatsu and SEQUAL (2012) found that 18 per cent of equity release customers used their funds for home improvements, and that this was one of the top three uses of equity release.

It is difficult to ascertain from the existing studies which expenses dominate the use of funds from HEW by older homeowners. However, it is clear that a sizeable proportion of reverse mortgage borrowers and those who downsize do rely on the funds as an asset base for welfare.

3.3 United Kingdom

It is widely accepted that the UK has the most developed housing equity release market in Europe. As noted by Reifner et al. (2007b, p.3): 'The UK, has by far the most sophisticated ERS market, based on any of the possible criteria that can be used to measure so called development of the market: size of business, number of providers, number of years for which products exist, level of consumer awareness with ERS, or quantity of literature, material and analysis describing the market. A number of countries, but the UK especially, is already demonstrating the market-driven process of product innovation when circumstances present an opportunity'.

[18] It is possible that the disparity between Bridge et al.'s (2010) and Olsberg and Winters (2005) findings are related to the different styles of HEW investigated in the two studies.

3.3.1 MEW products

MEW products have been available in the UK for up to 30 years (ASIC 2005). During this time, the types of products on offer have changed significantly. In the early beginnings, Home Income Plans[19] and SAMs were the dominant products. However, these have since made room for other forms of MEW and currently lifetime or reverse mortgages constitute the most frequently offered MEW product in the UK (Reifner et al. 2007b).

With an aggregate value of £560 million, lifetime mortgages dominate the sales (market share of 98%) in the UK equity release market. These are considered safe products because since 1991, they have been regulated under the Safe Home Income Plans'[20] (SHIP) code of conduct. SHIP has now been superseded by the Equity Release Council as an industry association for the equity release sector. However, it remains part of the Equity Release Council (ERC) in the form of the SHIP Standards Board, which sets the code of conduct for ensuring that lifetime mortgages and home reversion products for consumers aged 55 years and over are safe and reliable.[21] Rozario (2012, p.12) notes that 'SHIP's code of conduct meant that consumers could be sure when they released equity from their homes, if they used a product from a SHIP member, that they would be able to live in their homes for the rest of their lives or until they moved into long-term care, and that they would never be left owing more than the value of their home'. However, apart from lifetime mortgages, interest-only mortgages and further advances also exist to facilitate HEW (Reifner et al. 2007b; Reinold 2011).

There has been a definite move towards more flexible products in UK's mortgage markets over the years. These days, products which feature an overall borrowing facility that borrowers can choose when to draw down are the most popular product in the UK (Reifner et al. 2007b; see also Klyuev & Mill 2006, republished in 2007 and 2010). An example of a flexible mortgage product available in the UK is offset mortgages, whereby transaction balances are simply offset against a homeowner-borrower's mortgage debt (Klyuev & Mills 2006, republished in 2007 and 2010). Flexible mortgages were introduced in the UK in the early 1980s, and have generated considerable interest since the mid-1990s. Smith et al. (2002) conducted interviews with 486 flexible mortgage borrowers in Leeds, Birmingham, Guilford and Bristol in 2001. Fifty-one per cent of the respondents felt that the main feature of flexible mortgages that attracted them to the product was the possibility of early repayment. A lower, though not insignificant, proportion (19%) thought that borrowing against the house for other things was attractive. Interestingly though, almost all of respondents had never exploited the option of underpayments or payment holidays, and 75 per cent had never withdrawn a lump sum. In total almost half of the respondents (48%) never used any of the flexible options that their mortgage offered. This can be partly attributed to the short time that the mortgage has been held.[22] Another potential

[19] Reifner et al. (2007b, p.9) characterise the Home Income Plans of the 1980s as 'unsafe': 'interest rates were not fixed, stock exchange performance changed direction, home prices fell, and because funds released were used for investment on the stock exchange, many people lost their homes'.

[20] SHIP has been superseded by the Equity Release Council as an industry association for the equity release sector. However, it has been incorporated as part of the Equity Release Council in the form of the SHIP Standards Board, which sets the code of conduct for ensuring that lifetime mortgages and home reversion products for consumers aged 55 years and over are safe and reliable <http://www.equityreleasecouncil.com/ship-standards/> (last accessed 10 December 2012).

[21] For more details, refer to <http://www.equityreleasecouncil.com/ship-standards/> (last accessed 10 December 2012).

[22] Eighty-four per cent of those who have never used a key flexible facility, compared with 76 per cent of all interviewees, had held their mortgage for two years or less at the time of the interview.

explanation is suggested by the survey evidence—the 'slack in' financial position of the borrower (p.47). Higher income groups (with more savings) were most likely to have used a key facility. Nonetheless, Smith (2005) found that households with at least one flexible feature in their mortgage products are more likely to engage in HEW than the typical mortgage holder. While the product is available to all age groups, a significant proportion (30%) of the flexible mortgage borrowers interviewed by Smith et al. (2002) were aged 45 years and over.

MEW became popular in the UK in the 1980s, but lost ground when house prices fell in the early 1990s and credit conditions tightened (Earley 2001). According to a report released by the Equity Release Council, an industry body which ensures that life mortgages and home reversion products offered to homeowners aged 55 years and over are safe and reliable, HEW by older homeowners grew strongly between 1991[23] and 2007, but fell post-GFC. The number of consumers holding lifetime mortgages and home reversion products offered by SHIP's members grew from 570 to more than 29 000 at its peak in 2007. Over this period, the amount of equity released from homes increased sharply from £29 million in 1992 to £1.2 billion in 2007. Interestingly, while the amount of equity released through home reversion products (£19 million) exceeded the amount released from lifetime mortgages (£10 million) in 1991, by 2007, lifetime mortgages had exceeded home reversion as the more dominant style of HEW, accounting for £1.1 billion in equity released compared to the £83 million released via home reversion. After the GFC, the extent of borrowing via lifetime mortgages declined. In 2011, the amount of equity released via lifetime mortgages was £560 million (The Wriglesworth Consultancy 2011).

Existing studies generally agree that MEW is now a commonly used form of HEW among the UK homeowner population. Smith and Searle (2008), drawing on quarterly figures from the Bank of England, shows on a net basis, equity injections were occurring in the early 1990s. However, by the final quarter of 2003 the trend had reversed, and the level of MEW had peaked at 8.9 per cent of disposable income. And by mid-2004, net MEW had exceeded 6 per cent of the disposable income of UK borrowers for nine consecutive quarters. A micro-economic study of MEW borrowers over the period 2001–05 confirms that 'equity borrowing was a common tactic. The sums involved were not trivial, were not limited to older cohorts, or the province simply of the rich' (Parkinson et al. 2009). Focusing on older homeowners, the Wriglesworth Consultancy (2011, p.5) note that 'with the UK's over-55s currently sitting on … 1.9 trillion … worth of housing equity, the market [which is dominated by borrowing via lifetime mortgages] is sure to grow in the future'.

3.3.2 Sale of the home

Reifner et al. (2007b, p.6) identify two forms of HEW that fall under the sale model in the UK; the home reversion scheme and the sale and lease back plan (see Section 2.2.1 for a general description of the two products).

In the UK, most home reversion plans offer a single cash lump sum to the occupier at the start of the contract (which can in turn be used to buy an annuity).[24] Two of the 12 home reversion products studied by Reifner et al. (2007b) offer an 'impaired health option' (p.7), under which the terms will be enhanced as a result of a medical condition that shortens life expectancy. This is a unique feature not available under lifetime mortgages.

[23] SHIP, the Equity Release Council's predecessor, was first established in 1991.

[24] Only life insurance companies are authorised to offer home reversion products with monthly payments.

The amount of equity released through home reversion by older homeowners aged 55 years and over quadrupled from £19 million to £83 million between 1991 and 2007. However, after the GFC, the extent of borrowing via home reversion declined and in 2011, the amount of equity released via home reversion was £12 million (The Wriglesworth Consultancy 2011). While home reversion was the more dominant style of HEW in terms of the market share it occupied in 1991, by 2007 lifetime mortgages had exceeded it as the main form of HEW. In 2011, home reversion products made up only 2 per cent of the market share in the equity release sector for older homeowners aged 55 years and over, as compared to the 98 per cent share attributed to lifetime mortgages (The Wriglesworth Consultancy 2011).

The sale and lease back product is a 'sell and stay' option that includes rental payments as part of the plan. Such a plan can be used by the elderly, but it is not necessarily restricted to them. In the UK, these types of products lack regulation, contrary to other ERS, but they may also lack security of tenure. Reifner et al. (2007b, p.7) note that '[a]s opposed to the regulated equity release products that give consumers the right to live in their homes for life, sale and rent back arrangements involve a company buying an owner's home for significantly less than the market value, and then allowing that person to continue living in the property, but only by paying full market rent and often with only an assured short hold tenancy agreement. There are thus no guarantees that the consumer will be able to stay in the property long term'. Unfortunately, as Reifner et al. (2007b) notes, there is a lack of reliable data on the size of the sale and lease back industry in the UK.

Chiuri and Jappelli's (2010) index of mortgage market regulation ranks the UK and Australia as having the most well-developed mortgage markets of all the countries studied. Hence, one would expect that UK older homeowners would be much less likely to decumulate housing wealth (by move into renting) than those in countries where the mortgage market is more regulated (and thus less developed). Indeed, in accordance with expectations, Chiuri and Jappelli (2010) find that British homeowners aged 75–80 years are the least likely to move into renting among homeowners aged 75 to 80 from all the countries under consideration in their study. Banks et al. (2007, p.34) confirms this finding for the UK, arguing that 'housing consumption [the number of rooms] appears to decline with age in the US, even after controlling for the other demographic and work transitions associated with age that would normally produce such a decline. No such fall in housing consumption is found in Britain, largely because British households are much more likely to stay in their original residence'. Nonetheless, statistics from the Bank of England indicate that the sum of equity withdrawn from last time sales and trading down constitute a significant share of the total value of housing equity withdrawn in the UK, though HEW via sale of the home did decline noticeably post-GFC (Reinold 2011). In line with this, Elsinga and Doling (2012) and Tatsiramos (2006) conclude that UK elderly homeowners move more often than German homeowners (see also Section 3.7.2).

3.3.3 Uses of HEW

On a macro level, the amount of housing equity withdrawn by British homeowners exceeded the amount injected throughout the 1980s, that is, on a net basis HEW was taking place. During the early and mid-1990s, a reduction in HEW occurred in line with falling house prices. However, HEW increased again from the late 1990s as house prices started to rise. By 2002, net HEW was estimated to be around 6 per cent of household disposable income. Cross-country comparisons between the UK and US show that the British had been withdrawing housing equity on a larger scale[25] than US

[25] Scale is measured by net HEW as a proportion of household disposable income.

households from the early 1980s to early 2000s. Furthermore, HEW had been exceeding housing equity injection in the UK throughout the 1980s, long before this pattern emerged in Australia in the late 1990s (Reserve Bank of Australia 2003). Klyuev and Mills (2006, republished in 2007 and 2010) confirm these trends, further reporting that net HEW amounted to more than 10 per cent of disposable income from 2001 to 2005. However, more recent figures from the Bank of England show that on a net basis, households have been injecting rather than withdrawing equity again from 2008 till 2012.[26]

Various studies have sought to uncover the uses of HEW by homeowners in the UK in recent years. Several of these studies have increasingly converged on the conclusion that housing wealth is increasingly being used as an asset base for welfare to fund pressing spending needs and act as a buffer against adverse life events.

Smith and Searle (2008) investigated the flow of housing wealth to other things via MEW using various British surveys, and found that a significant two-thirds to three-quarters of all MEW borrowers spent some of the equity withdrawn on home repairs, improvements or extensions. However, the study observes funds released from housing equity via MEW (and especially via flexible mortgages) are increasingly being diverted away from reinvestment into the housing sector towards non-housing expenditures. For example, the study found that around two-thirds of MEW borrowers in the BHPS spent their released housing equity on home improvements in 1991, but this proportion had fallen to 44 per cent by 2003. On the other hand, spending of housing equity on non-housing items rose during that period. Importantly, the study highlights the fact that no evidence could be found, which could firmly support the proposition that funds from MEW were being spent on durable goods and holidays. The study hypothesised that as housing wealth becomes more fungible, it will increasingly be used to fund welfare and subsistence needs. In situ equity borrowing behaviours as examined by Parkinson et al. (2009) also suggest that MEW is being used to fund pressing spending needs and to cope with adverse life events such as marital separations or an anticipation of financial worsening by homeowners. Indeed, Smith et al.'s (2009) study later found that significant numbers of mortgagors who had withdrawn equity via MEW had used some of the funds to smooth income fluctuations, consolidate debts, provide financial assistance to children and parents and as a buffer against adverse life events.

With respect to other forms of HEW, Ong et al.'s (2013) BHPS study found that in the UK, those who withdraw housing equity by selling up and moving into the rental sector have incomes that are substantially lower than those who withdraw equity via trading on or MEW, and somewhat below the incomes of those who inject equity. The study observed that selling the primary home and moving into the rental tenure is a way of coping by households facing financial stress.

Even though the above-mentioned studies have not typically focused on older homeowners, Rowlingson (2005) does report an increased willingness among older people to rely on their assets to fund spending needs. Furthermore, Ong et al. (2013) found evidence that HEW via selling up and renting is disproportionately engaged in by those aged 75 years and over, widowed or separated. The study also notes that those who withdraw housing equity by trading on are typically aged 65 years and over, widowed, separated or not in the labour market. Jones et al. (2012) conducted interviews with 30 homeowner households in York in three age groups (25–35, 45–55, and 65 years and over) in 2009, and found that respondents were generally unwilling to withdraw equity to supplement their incomes. Homeowners aged 65 and over cited

[26] For more details, refer to http://www.bankofengland.co.uk/statistics/Pages/hew/2012/jun/default.aspx; (last accessed 17 December 2012).

uncertainties about life expectancies and bequest motives as reasons for their reluctance to engage in HEW. However, older homeowners did acknowledge that they viewed their homes as a source of security in case of emergencies.

3.4 United States

3.4.1 MEW products

According to ASIC (2005), the most widely used MEW product in the US among older homeowners is most likely the reverse mortgage.[27] Traditionally, home equity loans and HELOCs have also been used to withdraw home equity, though older homeowners generally find these more difficult to qualify for than reverse mortgages as they require regular mortgage payments during the life of the loan (CFPB 2012).

Reverse mortgages were introduced in the United States in 1961 (Wicke 2008; see also Schneider 2009a). The US was one of the first countries (together with the UK) where this style of mortgage was offered. In 1987, they were formally introduced by Congress to facilitate the financing of consumption in old age. Nowadays over 90 per cent of all reverse mortgages are based on the Federal Home-Equity-Conversion-Mortgage (HECM) Program (see Bishop & Shan 2008; Gotman 2011). Those reverse mortgage products not covered by the HECM program are known collectively as proprietary reverse mortgages (CFPB 2012). Their market share has steadily declined since the introduction of HECMs, and proprietary reverse mortgages are practically non-existent in the US nowadays.

The Federal Housing Administration (FHA)[28] of the Department for Housing and Urban Development (HUD) is responsible for accrediting financial institutions providing the HECM reverse mortgages. This arrangement implies that the government has some influence on the reverse mortgage market, and has also taken on some responsibilities as a guarantor. For example, the Federal government guarantees the fulfilment of the reverse mortgage contract towards the homeowner in the event that the lending financial institution encounters bankruptcy. On the other hand, it also covers the lender for negative equity risk, should the loan amount surpass the value of the dwelling which serves as collateral, as the consumer only owes the maximum of the value of the house (non-recourse clause). The right to transfer the loan contract to HUD thus allows for the following: first, to receive back the ‘extra‘ payments that surpass the dwelling value; second, to be repaid the loan amount in case of negative equity and the loan has not been transferred to HUD. The system is paid for by the fees that homeowners pay.[29]

There are eligibility requirements that borrowers must meet in order to qualify for a reverse mortgage. These include having a minimum age of 62, living in the principal dwelling, being (almost) an outright owner, and visiting an information meeting

[27] ASIC (2005) states that SAMs are also used in the US. However, Caplin et al. (2008, p.6) state that ‘tax barriers effectively prevent the development of SAM markets in the United States’. This started in the 1970s when equity sharing was introduced on the market. One of the barriers consists of income tax on non-payment of interest as if they were income received. Statistics about the total market of HEW have not been found.

[28] The last annual financial status report to Congress in November of 2012 reports that FHA comes to a negative economic value of $16.3 billion as a result of mortgages originated before 2009 <http://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2012/HUDNo.12-171l> (last accessed 11 December 2012). FHA has more tasks than the HECM program.

[29] This is called the assignment option in the FHA insurance program. Lenders have to pay the initial and the monthly mortgage insurance premiums to HUD in exchange for the protection. Loan assignment to HUD can happen when the loan balance reaches 98 per cent of the maximum claim amount (Bishop & Shan 2008).

organised by an independent HECM-advisor (Wicke 2008; Bishop & Shan 2008).[30] There are also requirements concerning the home and household income.

During the loan term (and as explained in Section 2.3.1), the homeowner retains ownership of the house with all the accompanying rights and obligations this entails. If the owner does not fulfil 'normal' duties with respect to the property, like carrying out repairs, insuring the house or paying property taxes, the lender has the right to repossess the property. However, if the property value falls below the loan value, it is the lender, not the borrower, who bears the collateral risk (De Roon et al. 2010).[31]

Payments from reverse mortgages can be made in the form of tenure, term or line of credit payments. Under the tenure (term) option, monthly payments are made indefinitely until the homeowner leaves the house (until the end of a fixed period). The tenure payment plan is also called a 'reverse annuity mortgage' because of its resemblance to an annuity product (Bishop & Shan 2008, p.12). A line of credit involves more flexible or unscheduled lump sum payments to a maximum value that is equivalent to the amount of loan secured against the property. A line of credit option can be combined with a tenure or term option into a modified tenure or term payment option respectively.[32] A homeowner can choose to take out the payment in a lump sum as well, although this is not a formal option that is also mentioned in the statistics (CFPB 2012).

The lines of credit appear to have been the most popular form of payment, as more than 90 per cent of loans taken out in the form of lines of credit in 2009 and 2010 (IBM Global Business Services 2010; CFPB 2012). However, the Consumer Finance Protection Bureau (CFPB 2012, p.27) reports that given today's markets are increasingly focused on predictability,[33] adjustable rate mortgages with line of credit or monthly payment plans are no longer available, making way for fixed interest rate mortgages with lump-sum disbursement: 'today the fixed-rate HECM is only available with a lump-sum disbursement option, and is structured as a closed-end loan in which borrowers are not permitted to borrow additional funds at a future date.'[34]

Even though the HECM program is federally insured it took a long time for MEW products to become popular. However, in the last decade, the take-up of HECMs has increased steeply. The take-up of new loans spiked from less than 10 000 in 2001 to over 100 000 in 2007, peaking at over 110 000 in 2009.[35]

This development went hand in hand with the increase of household debt; over the period 2002–07, total household debt in the US doubled, rising dramatically in absolute and relative terms compared to the 25 years before. Mian and Sufi (2011), using a representative dataset of a national consumer credit bureau agency, concluded that house price appreciation during this period resulted in an increase of borrowing 25 cents for every dollar gain in home equity from 2002 to 2006. Furthermore, they concluded that this was not correlated with the probability of trading

---

[30] See also Federal Housing Administration fact sheet on <http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_13006.pdf>.

[31] See also Federal Housing Administration fact sheet on <http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_13006.pdf>.

[32] For more details, refer to <http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hecm/hecmabou>.

[33] In order not to run interest-rate risk (CFPB 2012, p.188).

[34] As indicated before, the lump sum payments do not show up in the IBM Global Business Services (2010) statistics, while the fixed interest rate loans reached a share of almost 70 per cent in 2009, running up to 100 per cent according to CFPB (2012) in a later year.

[35] This is the latest data available on the HUD website. Details can be found at <http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/oe/rpts/hecm/hecmmenu> (last accessed 11 December, 2012).

up[36] or investing in investment property. This implies that soaring household debt during the house price boom must have been the outcome of a surge in the take-up of MEW products. But the GFC helped put an end to the rapid growth in HECMs at the beginning of this century. The CFPB (2012, p.76) notes that the US HECM market is today 'fragile'.

CFPB (2012) notes that the current US reverse mortgage market is very small, comprising 2 to 3 per cent of the 24 million homeowner households who are eligible for reverse mortgages. Nevertheless, CFPB (2012, p.5) states that: 'reverse mortgages have the potential to become a much more prominent part of the financial landscape in the coming decades'. This is based on the expectation that the potential market for reverse mortgages will expand significantly as baby boomers retire in droves. Furthermore, the availability of a mortgage interest deduction (from taxable income) for home loans makes for attractive borrowing compared with loans for other purposes in the US (Do 2012).

The trends discussed around HECM are of course mirrored when the amounts are connected to them and cash-out refinancing is included, as Belsky (2010, p.90) does: 'the amount of home equity extraction through borrowing soared during the 2000s in a truly epic manner …. In 2005 total real mortgage equity extracted through home equity loans and cash-out refinancing was $1880 for every adult and child in the USA, nearly 10 times the level in the early 1990s. Though equity extraction through home equity borrowing peaked in 2004, and cash-out from refinancing peaked in 2005, neither dropped significantly until 2007, and even then the combined total still amounted to $1136 per capita'. These amounts are based on increase of debt on average in every age category, the oldest being aged over 85.

3.4.2 Sale of the home

Leviton (2001) was not the first to observe the resistance of the elderly towards using housing wealth to fund the consumption needs of old age. Megbolugbe et al. (1997), in their analyses of the Panel Survey of Income Dynamics (PSID) from 1968 to 1988, found that the home ownership rate remained high up until the age of 70. After that age, homeowners would move into renting at a rate of 3 per cent per year. In principle, moves towards renting increased with time, though trading up and down also took place.

Venti and Wise (2000, p.2), using data from the Survey of Income and Program Participation (SIPP) and Asset and Health Dynamics Among the Oldest Old (AHEAD) for the years 1984 to 1995, found that the group aged 70 and over who were surveyed in the 1990s usually did not withdraw housing equity, even when they moved (which is not often) in old age. If there was relatively a large amount of housing equity available relative to financial wealth, HEW would sometimes take place. Only after unexpected events like decease or moving to a nursing home, housing equity would become liquid.

Venti and Wise (2004) later confirmed some of the results of the earlier study, as Poterba et al. (2011, p.105) suggest: 'The results thus suggest that households do not tap home equity until well into retirement and that substantial declines in housing wealth are often associated with shocks'. This time they used the Health and Retirement Study 1992–98 in combination with the AHEAD data between 1993–98 to observe that younger households that moved or moved out of home ownership on average increased their housing equity, while the older generation decreased it.

[36] However, Mian and Sufi (2011) could not identify within-zipcode moves and were unable to rule out the possibility that these are responsible for the observed increase in household debt over the period in question.

Chiuri and Jappelli (2010) suggest from their LIS analyses that in countries which feature less developed and/or less efficient mortgage markets, those aged 75 to 80 are more likely to move into renting than in countries that have more developed mortgage markets. According to their index of mortgage market regulation, the US has relatively developed mortgage markets, but the propensity to move was put in the middle range by the authors in the US compared to many other countries.

When amounts are put to these data, Belsky (2010, p.90) concludes; 'The velocity of home sales also reached new levels, unlocking additional stores of home equity and converting it to cash in the pockets of consumers …. In 2005 realized capital gains on sale reached almost one trillion dollars. While most of these proceeds were likely put towards a down payment for the next home purchase, if one is to believe a recent 2003 National Association of Realtors (NAR) survey, 18 per cent of net sale proceeds are put to other uses, which in this case amounts to nearly $180 billion (Greenspan & Kennedy 2007). However, this too has done a recent about face, dropping by half by 2007'. These amounts will be based not only on moving behaviour by older homeowners.

3.4.3 Uses of HEW

The existing literature highlights the importance of housing equity in fulfilling a welfare role among American older homeowners. Using the PSID, Skinner (1996) found that over the period 1984–89, 8.4 per cent of the elderly traded down into cheaper housing, and many of these homeowners had experienced a decline in income, as well as unexpected life shocks such as divorce, bereavement or poor health. On comparing income relative to income in the year of moves he finds that movers releasing housing equity have steeper declines in income. Megbolugbe et al. (1997), in their analyses of the PSID from 1968 to 1988, found that poor health appeared to play a role in influencing decisions to sell one's home.[37]

Leviton (2001) notes that the elderly are generally resistant to extracting equity from their home.[38] The study further confirms that only in emergency situations, such as the need to meet unexpected health expenditures, would this option have been considered. Venti and Wise (2000, p.2), using data from the Survey of Income and Program Participation (SIPP) and AHEAD for the years 1984 to 1995, also found that 'housing wealth is typically not used to support non-housing consumption during retirement'. Once again, it was unexpected life events such as the need to move into a nursing home, which appeared to trigger moves and HEW. Supporting the findings of Venti and Wise (2000), Poterba et al.'s (2011, p.96) analysis of the Health and Retirement Study found that 'many households appear to treat housing equity and non-annuitized financial assets as 'precautionary savings,' tending to draw them down only when they experience a shock such as the death of a spouse or a period of substantial medical outlays'.

[37] On the other hand, the study did not find any link between the sale of the home and the need to supplement a cash-poor household.

[38] This is in contrast with increased borrowing as a result of house price increases. Mian and Sufi (2011) suggest (even though more evidence is needed, as they state) that consumers use home equity for consumption or home improvement. Klyuev and Mills (2006, republished in 2007 and 2010) report on earlier survey evidence from research by Canner et al. (2002) that within the survey period (2001–2002H1), 45 per cent of those who refinanced their mortgage extracted equity. This amounted to an estimated $132 billion. Of this HEW, 35 per cent went to home improvements, 26 per cent to debt repayment, 21 per cent to the acquisition of real assets, and 16 per cent to the finance of consumers' expenditure.

3.5 Netherlands

3.5.1 MEW products

During the late 1990s, house price inflation accelerated in the Netherlands following 15 years of steady growth in house prices. This price increase sparked a massive expansion in HEW in the Netherlands; data from the Dutch National Bank or De Nederlandsche Bank (DNB) Household Panel 2002 shows that the share of mortgages for which the LVR exceeds 100 per cent rose from 42 per cent in the period 1996–2000 to 70 per cent in 2001–02. Furthermore, about 42 per cent of total outstanding mortgage debt was taken out in the form of an interest-only mortgage. In addition, more than 33 billion Euro of housing equity was released via MEW between 1996 and 2001. In the year 2000, the annual amount of housing equity withdrawn peaked at more than 10 billion Euro, followed by half that amount in 2001 (van den End et al. 2002).[39]

Given that mortgage markets in the Netherlands are so well developed, various styles of MEW are on offer, though not all fit in with the conventional definitions we have applied in Section 2.2.2. MEW does not always occur in situ, that is, after the initial purchase of the primary residence. In the Netherlands, MEW often takes place when a mortgage loan is taken out at initial purchase of a property or when a mortgage contract is re-negotiated at the point of purchase of a new dwelling (Van Els et al. 2003; Ministerie van BZK 2010).

As regards products specifically targeted at the elderly, the Florius Verzilver Hypotheek[40] is a reverse mortgage which has a no negative equity guarantee. To be eligible to access this product, the homeowner (or younger partner in a couple homeowners household) must to be at least 60 years of age. It is not very popular, however, even though Florius Verzilver Hypotheek is the brand name of a large Dutch bank, ABN-AMRO Hypothekengroep B.V. Also available are what Reifner et al. (2007b) calls extended or second mortgages that are offered by credit institutions. A form of second mortgage called opeethypotheek is offered by a bank (Rabobank) to homeowners older than 55 years. It can be described as a line of credit which is repaid when the home is sold, but if the credit amount exceeds 75 per cent of what Reifner et al. call the 'crash value' of the house, repayment is required before the house is sold (Reifner et al. 2007b, p.146).[41]

During the period 1993–99, Alessie and Kapteyn (2002) found that the elderly had a higher propensity to withdraw equity in the form of second mortgages than younger households. Later research concluded that, in contrast to past cohorts, recent cohorts of the over-65s are increasingly not repaying their mortgage loan fully in old age (Haffner 2008).

3.5.2 Sale of the home

The only home reversion product we have uncovered from the literature that falls under the 'sell and stay' model in the Netherlands is the Torenstad Verzilverd Wonen. It is a home reversion product that can be applied to the dwelling and the land or the land only, and may or may not require rental payments on the part of the occupier.

---

[39] Van den End et al. (2002) refer to second mortgages and refinancing as examples of MEW mechanisms.

[40] For more details, refer to <http://www.florius.nl/consument/hypotheken/floriusverzilverhypotheek> (last accessed 17 December 2012).

[41] At the time of writing of this report, Rabobank was offering these mortgage products under different names. For more details, refer to <http://www.rabobank.nl/particulieren/producten/hypotheken/hypotheekvormen/speciale_hypotheken/> (last accessed 4 November 2012).

However, since the GFC, it is no longer available as cautious lenders are currently not taking on any new clients.[42]

As regards the 'sell and move' option, we find that Dutch older homeowners are generally relatively immobile (Rouwendal 2007; see also Haffner 2005). More than three-quarters of those aged over 75 years prefer to age in their own dwelling for as long as possible (Eigenhuis panel results reported in VEH, 2012). As illustrated in Figure 3, the Netherlands has a very well-developed mortgage market. Hence, as expected, Haffner (2008) concluded that trading down in order to withdraw housing equity is not a popular option for older Dutch homeowners. Ebner (2010) also finds that older homeowners withdraw their housing equity mainly by remortgaging or taking out a second mortgage instead of trading down.

3.5.3 Uses of HEW

Given steadily climbing rates of home ownership in recent decades, the question of the uses of housing equity is increasingly researched in the Netherlands. However, there is a consensus among Dutch studies that older Dutch homeowners are generally unwilling to engage in HEW.

Early results from the Sociaal Economisch Panel (SEP), established that people generally do not dissave until they reach a very old age (Alessie et al.1995, Alessie et al. 1997). Haffner (2005, 2008) conducted interviews with some 20 homeowners aged 70 years and over, and found that while one in three did not have plans to repay their mortgage fully, the trend was expected to weaken over time as the pension system was deemed adequate enough to comfortably fund spending needs in old age. The expectation was that housing wealth would for the most part remain unused savings in old age, a finding echoed by Toussaint et al. (2007).

Among those who do engage in HEW, the precautionary savings motive appears to be weak. Based on an analysis of the 2002–07 DNB Household Survey, Ebner (2010) concluded that HEW is not being used as a buffer against adverse financial shocks. The study argued that consumption smoothing over the life cycle and the desire to diversify one's investment portfolio are more likely to influence the equity withdrawal decision.

Van den End et al.'s (2002) analysis of the DNB Household Panel found that on average, 84 per cent of households that engaged in MEW[43] used the equity withdrawn for home improvements, 24 per cent for consumption, and 13 per cent for repayment of loans. The study also found that the frequency of MEW is higher than average among households with lower incomes. The same theme emerges in Toussaint and Elsinga's (2012) study, which found that financial difficulties can increase the likelihood of MEW later in life, suggesting that among those who are willing to engage in HEW, housing assets can perform a welfare role for the materially deprived in the Netherlands.

3.6 Finland

3.6.1 MEW products

A key MEW product targeted at older Finnish homeowners is the reverse-loan model, which provides monthly payments at a variable interest rate, and was introduced by the OP-Pohjola Group (group of 200 cooperative banks) in 2007. The reverse-loan

[42] For more details, refer to <http://www.torenstad-verzilverdwonen.nl/index.php> (last accessed 17 December 2012).

[43] The study does not make a distinction between HEW via MEW and sale of the home. However, the study mostly refers to the mortgage market. Hence, we infer that its focus is on MEW.

model is a reverse mortgage offered to elderly homeowners either as a tenure loan or over a fixed term. The tenure loan is a lifetime loan in a broad sense only because in practice, the loan operates as a reverse loan for 10 years only. However, the payment to the homeowner is set as if the loan will run over the homeowner's lifetime.[44] After 10 years, the contract must be revised and renewed before the loan can continue.

Another variant of the reverse mortgage is a balloon loan[45] called Homeflex which was launched by the Nordea Bank Finland in 2005. This loan offers a line of credit (current account) facility where a loan can be granted up to the point where LVRs reach 75 per cent. The customer pays interest during the course of the loan term and the loan capital must be repaid after 10 years unless a new agreement is made or an amortisation scheme agreed on. Ordinary lines of credit also exist to facilitate HEW, though these are not solely restricted to older Australians.

Overall, the limited[46] literature on the Finnish market for MEW suggests that it is still relatively undeveloped compared to MEW markets in countries such as Australia, UK and US. Reifner (2007b) speculates that this is due to the existence of a well-functioning age pension system, which will be politically difficult to withdraw, even though the study could not identify institutional barriers to MEW.

3.6.2 Sale of the home

Little information is available in the literature about HEW products that fall under the sale model (Reifner et al. 2007b). A 'sell and stay' product is offered by the Mortgage Society of Finland, a commercial bank, which offers a sale and leaseback style of HEW for a limited term (usually 10 years).

As for the potential for adopting a 'sell and move' approach to HEW, national statistics indicate that mobility declines as one ages within the Finnish population. Inter-municipal migration occurs at a rate of 10 moves per 1000 of those aged 60 to 64 years.[47] On the other hand, younger age groups exhibit higher mobility rates; between 50 and 200 moves occur per 1000 persons.[48]

However, these statistics do not shed light on the relative mobility of the Finnish elderly in comparison to older people in other countries. Naumanen et al. (2012) conducted interviews with 30 homeowners residing in Turku, in three age groups ranging from 25–35 years, to 45–55 years and 65 years or over. When asked about their views on the role of housing equity in retirement, respondents acknowledged that they would consider trading down to reap capital gains. In comparison, there appeared to be greater resistance to MEW (via re-mortgaging or reverse mortgages) and selling and moving into the rental sector was 'practically out of the question' (p.62).

3.6.3 Uses of HEW

As mentioned above, Reifner et al. (2007b) notes that the need for HEW by older homeowners in Finland is limited because of the adequacy of the old-age pension

[44] This is contrary to loans with a fixed term that offer higher amounts to the homeowner but assume that the loan will be repaid at the end of the term.

[45] Other types of loans, such as ordinary line of credits and bullet loans, also exist and are used for equity release purposes, but they do not fit Reifner et al. (2007b)'s definition of ERS targeted to the elderly and part of retirement income (see the last paragraph of Section 3.1). They are thus not described in that study, Reifner et al. (2007b) also state that they would be classified in statistics as ordinary consumer loans.

[46] For example, statistics on the size of the MEW market in Finland are not available (Reifner et al. 2007b).

[47] For more details, refer to <http://www.stat.fi/til/muutl/2011/muutl_2011_2012-04-27_kuv_002_en.html> last accessed 17 December 2012.

[48] Moves within municipalities are excluded from these estimates.

system in Finland. Naumanen et al.'s (2012) study supports this argument. The study reported that interviews with elderly Finnish homeowners uncovered the view that reverse mortgages are seen as an option of 'last resort' only (Naumanen et al. 2012, p.65; see also Naumanen & Ruonavaara 2010). Most homeowners prefer to save their housing equity for emergency purposes, and possess conservative or religious attitudes that support bequest motives.

3.7 Germany

3.7.1 MEW products

The market for MEW products for the older German homeowners is not very well developed, and second mortgages, too, are quite uncommon (Reifner et al. 2007b). The total equity release product market for the elderly was estimated at less than 100 contracts in 2008 (0.0008% of outstanding domestic mortgages), with only two products being offered.[49] One of the products was a reverse loan where the retired homeowner would pay a monthly interest, but no capital repayment, until the homeowner leaves the property. An example of a reverse loan is the so-called Rentenhypothek for retired homeowners.[50] However, Wicke (2008; see also Tiffe 2007) notes that all attempts to launch reverse mortgages in the German market have failed because of the complexity of the products and associated legal insecurities.

Helbrecht and Geilenkeuser's (2010) qualitative study which interviewed 36 households in and around Bremen regarding their views on the use of housing equity in retirement, found that most of the respondents had never even heard of reverse mortgages. Even among those who knew of the product, many were hesitant to use them. Lang and Westerheide's (2006) study, based on a survey of 232 experts, proposed that the main reason for such caution is the inheritance motive, followed by resistance to making estimations about one's own life expectancy, distrust of financial institutions, and the unwelcome prospect of potentially having to sell the dwelling in the future.

More broadly speaking, among the six countries we have reviewed, Germany not only has the lowest rate of home ownership but it also features the second to smallest mortgage market when expressed as a share of GDP. Furthermore, another stark difference that exists between Germany and the other countries is that it is the only country being reviewed that has experienced a drop in real house prices since the mid-1990s, as Figure 4 shows. Hence, there have been no capital gains to be reaped from engaging in HEW in Germany.

It should be noted, however, that even though the market for HEW products has not taken off, some studies have argued that a potential market exists in Germany, as about every second retired German household would be a homeowner by now (Bundeszentrale für politische Bildung 2008; Statistisches Bundesamt 2011). Wicker concludes (based on Conrad 2007) that Germany has a reverse mortgage market potential of about one million out of 39 million homeowners, as the coverage of the state pension is rapidly shrinking and private pensions are not sufficient to cover this gap. Reifner et al. (2007b) proposes that potential demand for equity release by older homeowners is worth 7 per cent of the domestic mortgage market. On the other hand, they also report on signals from financial institutions that the equity release market will not be viable because it will be too small.

[49] However, planning was underway in 2008 to launch three more products in 2008–09.

[50] For more details, refer to <http://www.test.de/Rentenhypothek-der-Hannoversche-Leben-Guenstig-fuer-Rentner-mit-Eigenheim-1669749-0/> (last accessed 17 December 2012).

3.7.2 Sale of the home

As with the market for MEW products, there are hardly any financial products designed to facilitate HEW using a sale model, with the exception of a home reversion product for which take-up has been extremely low.

The 'sell and move' option appears to be equally unpopular. Data from the European Union Statistics on Income and Living Conditions (EU-SILC) show that about 2 per cent (4%) of homeowners aged 65 years and over (55–64 years) moved in 2008 (Elsinga & Doling 2012). Chiuri and Jappelli (2010) argue that Germans aged 75 to 80 are more likely to decumulate housing wealth by moving into renting than those in countries with well-developed mortgage markets, such as US and UK. However, this contrasts with findings offered by various other studies. Angelini et al. (2011) concluded from their Survey of Health, Ageing and Retirement in Europe (SHARE) analysis that a smaller share of homeowners sell their home and move in Germany than in some countries with more developed mortgage markets. Elsinga and Doling (2012, data from EU-SILC 2008) and Tatsiramos (2006, data from European Community Household Panel 1994–2001) also reported that older homeowners aged 55 years and over in Germany are less likely to move than similarly aged homeowners in the UK. The inconsistency in existing studies' findings suggests that there are multiple factors at play in determining the extent to which alternative HEW mechanisms are used to release housing equity. For example, house prices have been more or less stagnant in Germany for the last few decades (see Figure 4). In contrast, house prices in the UK have soared. Moves may have been deterred in Germany as there are no capital gains to be realised upon sale of the home.

3.7.3 Uses of HEW

German policy does treat owner-occupied dwelling as part of the pension system in old age. For example, the so-called Riester Rente (Riester Pension) was introduced in Germany in 2008 (Reifner et al. 2007b). It is a voluntary private pension system based on private savings and government subsidies. Since 1 January 2008, the acquisition of owner-occupied and cooperative housing based on the Riester Pension is also eligible for subsidisation (Bundesregierung 2009).[51] But this does not seem to have stimulated HEW in old age.

As noted in the previous sub-sections, the take-up of HEW has been extremely low in Germany. In Helbrecht and Geilenkeuser's (2010) qualitative study, the over-65s who were interviewed stated that they would only sell their home in the event of an emergency (see also Jones et al. 2012). Furthermore, respondents were of the view that pension levels at the time of interview (2009) did not make it necessary for them to tap into housing equity.

Households interviewed by Helbrecht and Geilenkeuser (2010) revealed a preference to save to buy an investment property in old age, once the mortgage for the primary home has been repaid and the household was debt-free. Younger respondents (aged 25–35) were conscious that a home purchased relatively early in the life cycle would contribute to economic security in old age by offering lower housing costs in retirement. This implies that the primary home functions more as a pillar in Germany's pension system by offering low housing costs in old age than as an economic resource that can release funds to support consumption in retirement.

[51] Specifically, repayments on so-called 'for the Riester Pension certified' mortgage loans to acquire housing property can be subsidised with an annual subsidy. Both amounts (repayment and subsidy) are counted as savings in a fictitious Riester Pension account. Tax payment on this account is deferred until the 'official date' of usage has passed, such as the pension age.

3.8 Institutional settings influencing the use of HEW

This chapter has reported findings from country-specific reviews on the availability of HEW mechanisms and uses of HEW in six developed countries. Differences in the extent to which MEW and sale of the home are used as channels of HEW by older homeowners have been uncovered across countries, and cross-country comparisons reveal that many of these differences are driven by variations in institutional settings.

The extent to which we have been able to uncover literature that offers insights into HEW by older homeowners also varies across countries. For example, while there is substantial relevant literature in the UK and Australia, at the other extreme, the literature on HEW by older homeowners in countries such as Finland and Germany is relatively sparse. This could be due to the currently limited volume of HEW activities occurring in these two countries as compared with other countries in this study.

Nonetheless, the country-specific reviews reported in Sections 3.2 to 3.7 offer sufficient information for us to draw out inferences about the styles of HEW that tend to dominate in various countries and relate these to various institutional factors that are likely to influence the popularity (or lack of) of different forms of HEW, as detailed below.

3.8.1 Degree of mortgage market development

It is clear that the degree of mortgage market development is positively correlated with the propensity to MEW. We find that in Australia, UK and the US, the use of MEW products such as flexible mortgages and reverse mortgages is more prevalent than in countries with more limited closed circuit mortgage markets such as Finland and Germany. In the Netherlands, MEW has also been taking place, not via flexible or reverse mortgages, but mostly via refinancing and second mortgages. Indeed, the take-up of MEW products in Australia, the UK, US and Netherlands grew substantially on the back of soaring house prices during the pre-GFC boom. However, even in the US (where mortgage markets are well-developed and reverse mortgage products are typically guaranteed with government backing) as well as the UK, the take-up of reverse or lifetime mortgages has waned as a result of the GFC; and it would appear that taxation settings in the Netherlands will likely blunt incentives to engage in MEW among older homeowners in the near future. In Australia, however, the origination of reverse mortgages has continued to rise through the GFC years.

3.8.2 Housing markets

There appear to be several conflicting factors influencing decisions to sell the home in order to release housing equity. Chiuri and Jappelli (2010) hypothesise that in countries such as Germany, where mortgage markets are limited, older homeowners are more willing to withdraw housing equity by selling their homes and moving into rental housing than in countries with well-developed mortgage markets such as the UK. However, interestingly, Tatsiramos (2006) and Elsinga and Doling (2012) have uncovered contrasting findings, that is older homeowners in Germany are in fact less likely to move than older homeowners in the UK.

The inconsistency in existing studies' findings as reported above suggests that there may be multiple factors at play in determining the extent to which alternative HEW mechanisms are used to release housing equity. For example, the extent of house price appreciation clearly plays a critical role. In Germany, house prices have been stagnant over the last few decades; in comparison, house prices in Australia and the UK have soared. Hence, there are no capital gains to be realised from selling one's home in a country where house prices have not appreciated, and this may have

dampened incentives to engage in HEW through the sale of the home in Germany relative to countries such as Australia and the UK.

Van der Heijden et al. (2011) also distinguishes between dynamic and static housing systems, which may also potentially influence the extent to which HEW is used. The study proposes that dynamic systems are much more likely to feature a large volume of speculative property construction and a high rate of turnover of the existing housing stock than static systems. On the other hand, in static housing systems, the purchaser of a property typically invests much more effort into the construction process in consultation with an architect, such as arranging for the necessary planning permits and having input into the design process (Ball et al. 1988; Dol et al. 2010). Hence, mobility rates will be higher in countries with dynamic housing systems (such as the UK), while in countries with static systems (such as Germany), changing housing preferences are more likely to result in home modifications rather than sale of one's home (Van der Heijden et al. 2011).

3.8.3 Taxation settings

The institutional environment concerning taxation does impact on the take up of HEW via downsizing or selling up and renting. As reported in Table 4, CGT applies on the sale of the primary home in Germany if sold within 10 years from the date of acquisition of the property. On the other hand, in countries such as Australia and the UK, the sale of the primary home is exempt from CGT. This is a potential reason why Tatsiramos (2006) and Elsinga and Doling (2012) both found that older homeowners in Germany are in fact less likely to move than older homeowners in the UK.

The availability of a mortgage interest deduction (from taxable income) for home loans makes for attractive borrowing compared with loans for other purposes, for example in the US (Do 2012). In regard to MEW, until recently, mortgage interest deduction was available in the Netherlands, hence encouraging the withdrawal of housing equity via MEW.

The institutional environment concerning taxation in the Netherlands, however, has changed, and may temper inclinations to engage in MEW in the Netherlands. Firstly, the 2001 tax reform abolished the mortgage interest deduction for that part of the mortgage spent on non-housing uses. Secondly, since 2001, the mortgage interest deduction term has been limited to 30 years. Given the length of the term, it is likely to end in later life. Hence, older homeowners will have fewer incentives to continue to engage in MEW when they reach the end of their mortgage interest deduction term. Thirdly, from 2004 onwards, the amount of mortgage that is eligible for mortgage interest deduction on moving to a new dwelling is capped at the difference between the acquisition price and the equity embodied in the previous house (thus deterring over-mortgaging). Fourthly, from 2005 onwards, the amount of taxable imputed rent (which is taxed under income tax provisions) is also limited to the amount of mortgage interest to be deducted. The intention is to motivate accelerated repayment of the principal because once a mortgage loan is repaid, the owner-occupier no longer pays income tax on imputed rent (Haffner & De Vries 2010). More institutional changes have been agreed upon by policy-makers, which make the use of mortgage loans to release housing equity less attractive than it used to be. As of 1 January 2013, all new loans have to be repaid in 30 years at least in an annuity pattern (Ministerie van Financiën 2012). This makes interest-only mortgages unattractive. Furthermore, from 1 January 2014, the Dutch government that came into office in autumn of 2012 intends to reduce the rate at which mortgage interest can be deducted from the current maximum of 52 per cent of taxable income, by half a percentage point each year, until it reaches the next lower tax rate of 42 per cent (VVD-PvDA 2012). These

changes suggest that in situ MEW will become less attractive in the Netherlands in the future than at present.

It is noteworthy that changes to taxation settings as described above and partly instituted after the GFC may shift preferences away from MEW towards sale of the home among those who wish to withdraw housing equity. In addition, in 2012 the transaction tax payable on property purchase was temporarily reduced to stimulate property exchanges in a market that had slowed considerably after the GFC. The transaction tax was permanently set at 2 per cent on July 1 2012, a hefty reduction from the previous 6 per cent that was applicable.

3.8.4 Regulatory frameworks

The role of regulation is an important one that influences the willingness of older persons to take up HEW due to the multitude of risks associated with reducing equity in the primary home, to which one usually has a strong emotional attachment.

Currently in the US, over 90 per cent of all reverse mortgages are based on the Federal Home-Equity-Conversion-Mortgage (HECM) Program (see Bishop & Shan 2008; Gotman 2011), under which the FHA is responsible for accrediting financial institutions providing the HECM reverse mortgages. The involvement of the US government in the reverse mortgage market, and its willingness to assume a guarantor-type role has inspired more confidence in the use of HECMs than proprietary reverse mortgages that are not government-backed.

In the UK, apart from standard contract and consumer protection laws, certain equity release products that are deemed to pose higher risks to consumers are subject to the its Financial Services Authority (FSA)[52] regulation, including lifetime mortgages, home reversion products and sale and leaseback products. Moreover, industry self-regulation is extensive, with 90 per cent of equity release business being transacted with providers who subscribe to the ERC's self-regulatory codes (Fox-O'Mahony & Overton 2013).

Similarly, in Australia, SEQUAL operates as a peak industry body which seeks to maintain professional standards of practice in the equity release market. SEQUAL's code of conduct requires that all providers who are SEQUAL members include clear and transparent no-negative equity guarantees in the products they offer, as well as comply with other self-regulatory codes (SEQUAL, n.d.).

On the other hand, the lack of success of MEW products in Germany may be attributed to the presence of legal barriers that complicate the supply of MEW products by lenders. For example, financial institutions that are not licensed as an insurer need to search for alternative ways of insuring against the longevity risk of the homeowner. The institutional settings, however, favour the take-up of reverse mortgages by homeowners, as payments from reverse mortgages are not regarded as a form of income, and are thus not taxed under current income tax arrangements (Reifner et al. 2007b).

3.8.5 The generosity of public pension systems

The generosity of a public pension system in a country will no doubt also influence the use of HEW by older persons. While public pension regimes vary considerably across countries, the gross replacement rate from public pension schemes offers a valuable

[52] The FSA is an independent non-governmental organisation that has statutory powers by the *Financial Services and Markets Act* 2000. While financed by the financial services industry, the FSA is accountable to Treasury Ministers and the UK Parliament. For more information, please refer to <http://www.fsa.gov.uk/about/who>.

point of comparison as it estimates the level of public pensions in retirement relative to earnings when working.

According to the OECD (2011), the gross replacement rate from public pension schemes is lowest in Australia at 11.8 per cent. The replacement rates in the Netherlands, UK and US fall in the intermediate range, being 29.2 per cent, 31.9 per cent and 39.4 per cent respectively. However, it is noteworthy that among these three countries, only the Netherlands has a quasi-mandatory private pension system, under which pensions are provided by employers or industry-wide schemes. The public pension replacement rates climb up to 42 per cent in Germany and 57.8 per cent in Finland, indicating that the public pension systems are likely to be the most generous in Finland and Germany (though these countries do not have mandatory private pension schemes).

The Netherlands has the most developed quasi-mandatory private pension system among the six countries, which covers over 95 per cent of the Dutch workforce, that came about as a result of the introduction of the private occupational pension schemes in the mid-1800s for railroad workers. By 1949, a law on occupational pension sectoral funds had been implemented, which made it obligatory for employers to participate in pension funds in sectors where there was a collective agreement on occupational pensions schemes (Trampusch et al. 2010). At the end of 2008, there were 656 pension funds that fell under the quasi-mandatory private pension system in the Netherlands (OECD 2011). Under this system, each employee has to pay a fixed percentage of his or her salary in return for future pension entitlements. In 2008, this percentage was around 16 per cent of gross income (Ministerie van Sociale Zaken en Werkgelegenheid 2008). In comparison, Australia's compulsory guarantee system was only established in 1992, and the US, UK, Finland and Germany do not have established private pension systems in place (OECD 2011, p.107).

It is therefore not altogether unsurprising to find more widespread use of MEW products in Australia, the UK and US, than in countries that are supported by more generous public or private pension systems such as the Netherlands, Finland and Germany. At the same time, the existing literature hints at a greater willingness among older homeowners to sell and move in Australia (see, e.g. Olsberg & Winters 2005) and the UK than in countries such as Germany (Tatsiramos 2006; Elsinga & Doling 2012).[53] Given growing pressures on government budgets to meet age-related payments and services, we can expect the continued retreat of welfare states in countries with neo-liberal welfare regimes such as Australia (see Section 1.3.1), and as a result older homeowners will increasingly engage in HEW to supplement retirement incomes.

3.8.6 The welfare role of housing wealth

Little is known about the specific uses of HEW by older homeowners. There are potentially a range of competing uses for HEW. The limited evidence available seems to suggest that, at least in the Netherlands, Finland, Germany and US, older homeowners do not regard their housing wealth as a store of savings to be tapped in order to meet routine consumption needs. Rather, the release of housing wealth is a last resort in the event of emergencies. It would appear that in these countries, the accumulation of housing wealth fulfils a precautionary savings motive. It seems that older homeowners in these countries are cautious and recourse to housing equity is limited to meeting urgent welfare needs (e.g. medical expenses).

[53] Ong et al. (2013) found among all homeowners, the propensity to trade on is similar in Australia and the UK. However, the propensity to sell and rent is higher in Australia than the UK.

On the other hand, Smith and Searle (2008) and Ong et al. (2013) have used large-scale surveys and quantitative as well as qualitative methods to investigate the uses of HEW by the general Australian and UK home owning population. These studies hint at a larger welfare role for housing in Australia and the UK. Homeowners are prepared to tap into their housing equity for a wider range of competing uses—to supplement incomes, consolidate debts, and to pay for home maintenance and renovations. These studies do not distinguish between older and younger homeowners, but qualitative studies focusing on older homeowners, such as ASIC (2007) and Bridge et al. (2010), confirm that older homeowners, at least in Australia, do use their housing equity for a wider range of uses than in the Netherlands, Finland, Germany and US.

3.8.7 Implications for HEW in Australia

Drawing together the key observations from the existing literature, we hypothesise that HEW, via both MEW and sale of the primary home, is likely to grow at a faster rate in Australia in the future than the other countries reviewed in this chapter. The significant house price appreciation experienced in Australia over the last few decades (Figure 4), together with the CGT exemption of the sale of the primary home, will have fuelled incentives to channel housing wealth to fund consumption needs. Financial market innovation has made housing wealth fungible, thereby providing homeowners with vehicles that allow them to respond to these sharper incentives.

Existing studies generally confirm that Australia has an extremely well-developed mortgage market (see Section 3.1). Statistics from Australian sources such as Deloitte Touche Tohmatsu and SEQUAL (2011, 2012) also indicate that the Australian reverse mortgage market did not suffer any noticeable downturn through the GFC years (see Section 3.2.1), whereas the take-up of reverse mortgages did subsequently decline in the similarly complete UK and US mortgage markets (see Sections 3.3.1 and 3.4.1).

Interestingly, we also find that despite its well-developed mortgage market, Australian homeowners aged 75–80 years are more likely to move into renting than homeowners in the same age group in the UK or US (based on Chiuri and Jappelli's Figure 6). This raises the question of whether HEW via sale of the home is also more likely to occur in Australia than other countries with similarly complete mortgage markets because of institutional settings that facilitate or motivate the sale of a home to move into the rental sector. Indeed, Wood and Ong's (2012) statistical comparisons of exits from the home ownership sector into the rental tenure suggest that homeowners were more likely to move into the rental sector in Australia than the UK during the period 2001–08. The study suggests that this difference has arisen as a result of divergent institutional settings in the rental sectors of the two countries. Australia has a larger relatively unregulated private rental sector (around one-fifth of the population rents privately), and is therefore more likely to be able to accommodate moves from the home ownership sector into the private rental sector should homeowners be forced to sell up.[54] However, it should be noted that the absence of rent controls and security of tenure in Australia's private rental market means that older homeowners are unlikely to be willing to sell and move into the rental market unless they have no other option.

Finally, as noted in the previous sub-section, it is possible that housing wealth is being used to fund everyday consumption needs in Australia rather than just to fulfil precautionary savings motives. If this is the case, and given the availability of MEW products in Australia's developed mortgaged markets, it is likely that Australian

[54] Ong et al. (2013) find that among housing equity extractors, the incidence of financial distress is higher among those who sell up and rent than those who trade on or withdraw equity in situ, possibly indicating that selling up and renting is usually view as a measure of last resort.

homeowners are increasingly tapping into their housing equity at earlier stages of the life course to fund spending needs. To the extent that HEW is exercised by MEW over the life course (and not just post-retirement), more and more older Australians will approach retirement with outstanding debt, that is either paid off from lump sum superannuation payouts, or by regular repayments which are a drain on retirement pensions. This will have important ramifications for the effectiveness of the retirement income system in Australia. We consider these issues in greater detail by testing the strength of our hypothesis via statistical analysis in the next chapter.

4 THE ASSET AND DEBT PROFILE OF OLDER AUSTRALIANS

This chapter profiles the asset and debt composition of older Australians. This profiling exercise will present background information that will inform the remainder of this project.

The previous chapter has highlighted the increasingly important role that housing may play as an asset base for welfare, in particular in countries with a neo-liberal welfare regime such as Australia. Indeed successive Australian governments have implicitly promoted this switch to asset-based welfare via the use of tax expenditures (subsidies), concessionary asset tests (governing eligibility to allowances and pensions) and assistance to first homebuyers that promote home ownership and the accumulation of savings in housing wealth. The assumption has been, as appears to be the case in Germany, that lower retirement incomes than employment incomes will be matched by relatively low housing costs post-retirement because retired homeowners would own their homes outright, and can therefore get by on smaller pensions (Castles 1998).[55] There is evidence supporting the effectiveness of this strategy. For example, on comparing six countries, Yates and Bradbury (2010) find that while Australia has the highest before-housing poverty rate among the over-65s, it has one of the lowest after-housing poverty rates in this age group.[56] Hence, housing wealth has traditionally been an important pillar supporting Australian retirement policy. Government interventions that encourage extensive accumulation of wealth in the primary home have become a cornerstone of Australian social policy as it has allowed the age pension to be set at relatively low levels as compared to other countries (Baxter & McDonald 2005).

However, HEW eats into housing wealth, leaving less housing equity to fall back on in the event of emergencies. Toussaint and Elsinga (2009) distinguish between traditional and new 'housing-asset-based welfare'. In the former, home ownership is perceived as a means to accumulate housing equity that can be tapped into contingently, as a last resort, and typically late in the life course. In the latter, housing equity is used as a financial resource and built up or released as needed over the life course via financial products. The increased availability of these financial products permits the welfare role of housing wealth to reach into earlier stages of the life course. Hence, to the extent that HEW is exercised by MEW over the life course (and not just post-retirement), more and more older Australians will approach retirement with outstanding debt, that is either paid off using lump sum occupational pension payouts, or is paid off by regular repayments which are a drain on retirement pensions. It is these fears (and others about price volatility) that motivate concern about the robustness of housing wealth as an asset base in old age.

The empirics reported in this chapter shed light on the sturdiness of home ownership as a pillar supporting Australian retirement income policy. Is this pillar still strong, or is it now a crumbling pillar, as suggested by Yates and Bradbury (2010)? Might HEW indeed be reducing the effectiveness of housing wealth as an asset base for welfare in old age?

[55] The small minority unable to attain outright ownership are assumed to be accommodated in public housing at affordable income related rents, or in private rental housing with housing cushioned by Commonwealth Rent Assistance.

[56] Doling and Ronald (2010) report a significant positive correlation between before-housing poverty rates among over 65s and the rate of homeownership in a sample of EU countries. Heylen and Haffner (2012) conclude that it is not about the rate of homeownership but the rate of outright owners that determines the reduction in after-housing poverty rates.

In this chapter, we define older Australians as those aged 45 years and over. The ABS broadly classifies the adult population into four groups; youths aged 15–24 years, prime working aged from 25–44 years, those approaching retirement from 45–64 years, and finally those aged 65 years and over who are usually no longer part of the working age population (ABS 1995). The peak of life cycle earnings typically occurs at some point after 44 years or age. Asset accumulation and divestment decisions will become more critical from age 45 onwards. Section 1.2 highlighted the growing dominance of baby boomers (currently in their 40s, 50s and 60s) within the population. By focusing on those aged 45 years and over, we have an opportunity to gain some insight into the behaviours and expectations of baby boomers with respect to the use of housing equity in later life, as this group is likely to exert increasing influence on the direction of public policy-making in Australia in the near future.

As life expectancies lengthen, older Australians in later life are becoming an increasingly heterogeneous group. In recognition of this, we make important distinctions between the following life cycle stages:

- Pre-retirement phase, when men and women are typically still accumulating assets (45–54 years).
- The years surrounding retirement decisions and transitions (55–64 years).
- Post-retirement years, when asset divestment is expected (65 years and over).

4.1 Method

4.1.1 Data

The empirics described in this chapter are sourced from the confidentialised unit record files of waves 2, 6 and 10 of the Household Income and Labour Dynamics in Australia (HILDA) Survey. These waves represent the calendar years 2002, 2006 and 2010. They have been selected for analysis because they contain special wealth modules necessary to map the asset and debt profile of older Australians. The years represented by the wealth modules are also convenient markers of two distinct periods in housing markets. The period 2002–06 represents a period of house price boom in Australia; those fortunate enough to be owning housing in sub-markets where prices were soaring over this period would have reaped large windfall gains. On the other hand, in the period 2006–10, house prices peaked and then declined as a worldwide financial crisis shook the confidence of housing market participants and ushered in a new era of risk and volatility.

4.1.2 Measurement of assets and debts

The HILDA Survey reports most asset and debt values on a household basis. However, households can comprise multiple income units. An income unit contains persons who live in the same dwelling, but can be expected to share their income. Households contain all the persons who live in the same dwelling. So, for example, a household comprising a couple with two dependent children aged under 15 years of age contains only one income unit. But a household consisting of a couple and a non-dependent 26-year-old son in full-time employment contains two income units. It is clear from the example provided that it would be misleading to assume that the two income units have equal access to aggregate household wealth. And if the household were an owner-occupier, it would be misleading to attribute any of the wealth stored in the primary home to the adult son, when his parents are in fact the homeowners. Indeed these ideas inform the application of Australia's income support payment asset tests, which are applied on an income unit, rather than a household basis.

We therefore invoke a series of algorithms to translate the HILDA Survey's reported household and individual asset and debt values into income unit estimates. The most important function of these algorithms assigns the value of property held by a multi-income unit household to the income unit that is the legal owner of the property, as reported in the wealth modules. The household's business assets are divided equally among those identified as business owners in the household. Each individual in an income unit has their business wealth summed to derive income unit business wealth. Savings in bank account balances and superannuation funds are reported on an individual basis; arriving at an income unit estimate involves simply adding these values across members of the same income unit. On the other hand, investments such as shares and bonds, life insurance, trust funds as well as assets such as vehicles and collectibles are reported on a household basis. These components of household wealth are divided equally among adult members of the household, and then summed across members of each income unit.

A series of similar algorithms are also applied to reported debt values. Debts secured against property are treated in the same way as property assets and assigned to legal owners of the property. Business debts are divided equally among those identified as business owners in the household. Credit card and other debts are reported on an individual basis.[57] These outstanding debt amounts are added up across those belonging to the same income unit.

Table A1 in the appendix lists the key asset and debt variables, their units of measurement in the HILDA Survey, and the algorithm we have applied to transform the variables onto an income unit basis. These algorithms broadly follow those reported in Wood et al. (2010a); the imputed income unit values that result from application of these algorithms will no doubt contain some measurement error, but the extent of measurement error will be limited since almost 80 per cent of households are single-income unit households, where the algorithms are unnecessary.

Asset and debt estimates are all population weighted so that survey estimates are translated into population level estimates in each of the three waves that include wealth modules.[58] Consumer Price Index (CPI) deflators are applied to convert nominal asset and debt estimates into real values at constant 2002 price levels.[59]

4.1.3 Sample design

The analysis reported in this chapter exploits two different sample designs.

First, the availability of cross-sectional population weights in every wave allows us to convert the HILDA dataset into a repeated cross-section dataset that can compare 'snapshots' of the asset and debt profiles of older Australians in each of the three years under scrutiny, that is 2002, 2006 and 2010. This permits us to judge whether or not older Australians in 2010 have significantly different asset and debt portfolios than their older Australian counterparts in 2002 (see Sections 4.2 and 4.3).

However, the HILDA Survey is first and foremost a panel survey that allows researchers to track individuals as they age over time. We exploit the longitudinal

[57] Other debts include Higher Education Contribution Scheme loans, car loans, investment loans, personal loans, hire purchase and overdue bills.

[58] As explained below, two different sample designs are used for the analysis. Where a repeated cross-sectional sample design is adopted, cross-sectional population weights are applied. Where a balanced panel is invoked, longitudinal population weights are used.

[59] The CPIs in 2002, 2006 and 2010 are 138.1, 154.4 and 172.6 respectively. Hence, to express the 2006 house values in real terms, we deflate the 2006 values by a CPI deflator equivalent to 138.1/154.4. Similarly, to express the 2010 house values in real terms, we deflate the 2010 values by a CPI deflator equivalent to 138.1/172.6.

nature of the data to investigate how asset and debt portfolios change as the same panel of Australians age (see Section 4.4).

In both samples, the unit of analysis is the person. This is necessary because income units dissolve and re-form over time, and so it is not possible to track the same income units between 2002 and 2010. For example, some income units will dissolve because of divorce and separation, and new income units will be formed as dependent children grow up and leave the family home. If there were no deaths, births, separations, divorces or other additions/subtractions to income units, it would be possible to profile a balanced sample of unchanging income units. However, given that life events do alter the composition of income units, their use as the unit of analysis would result in an unbalanced sample of income units that confounds interpretation of findings about wealth and debt across years.

4.2 Snapshots of older Australians' asset and debt portfolios

In this section, we examine the size and composition of asset and debt portfolios accumulated by older Australians. We are especially interested in the extent to which the primary home is an important store of wealth relative to other asset types. In addition, we investigate whether older Australians in 2010 have significantly different asset and debt portfolios as compared to older Australians in 2006 and 2002. We achieve this by taking snapshots of the asset and debt portfolios of older Australians in 2002, 2006 and 2010 and compare them, using repeated cross-sectional analysis. This approach also allows us to examine whether the importance of the primary home as a store of wealth in old age has grown or diminished over time. If the primary home and housing equity continue to dominate the asset portfolios of older Australians, they will remain a critical influence over their retirement strategies and welfare. On the other hand, if the primary home and housing equity have become less prominent components of older Australians' asset portfolios, their influence over retirement strategies and welfare will wane. We might then ask whether the focus of retirement strategies has shifted away from the primary home to other components of wealth portfolios such as superannuation. The welfare implications of HEW in old age will differ depending upon our findings. For example, tapping into housing wealth as retirement approaches or after transition into retirement is much less of a threat to future welfare if superannuation is catching up, or even overtaking housing as the major store of wealth.

Table 6 presents the average values of a range of assets and debts held in the 2002, 2006 and 2010 portfolios of older Australians in those years. The primary home clearly remains the main vehicle used by most older Australians for the accumulation of wealth, representing approximately 45 per cent of their asset portfolio over the period 2002 to 2010.[60] Housing is followed by superannuation wealth, representing roughly one-fifth of older Australians' total assets. Other properties and savings and investments are less important sources of wealth, comprising 16 per cent and 13 per cent of older Australians' 2010 asset portfolios respectively. Given the continued dominance of the primary home, it is not surprising to find that debt secured against the primary home takes up the major share of debt owed by older Australians in all years. In summary, in the new millennium housing clearly performs an important role, both as a vehicle for wealth accumulation, and as collateral against which debt can be secured.

[60] The estimates in Table 5 represent average values for all older Australians regardless of housing tenure; 80 per cent of older Australians were homeowners in 2002 and 2006, but this fell slightly to 78 per cent in 2010.

Looking across the three years, it is clear that older Australians reaped significant real capital gains from soaring house prices in the early 2000s. By 2006, average primary home values had soared to $442 000, almost 75 per cent higher (in real terms) than the average 2002 ($255 000) value of older Australians primary homes. Perhaps more surprising is that house prices remained resilient through the GFC. Between 2006 and 2010, the real value of primary homes in older Australians' portfolios continued to grow, defying the generally volatile global economic climate, to reach $586 000. ABS house price indices displayed in Figure 5 indicate that while house price growth slowed, their levels in 2011 exceeded those prior to the start of the GFC in 2006. The real value of debt owed against the primary home (as well as other property) also climbed, more than tripling over the period 2002 to 2010, indicating that the current cohort of older Australians are much more indebted than their 2002 counterparts. Despite widespread fears of tighter borrowing constraints, post-GFC debt secured against the primary home and other property continued to increase between 2006 and 2010.

Superannuation has not increased its share in older Australians' wealth portfolios despite tax preferences and the maturing of the compulsory superannuation guarantee system and the increasing proportion of older Australians who have been benefiting from contributions over longer time periods. Superannuation funds have been hit hard by GFC-related stock market reversals. Hence, we haven't witnessed the rising share of superannuation that one might have anticipated. In contrast, between 2002 and 2010 the real value of 'other property' (largely housing not occupied by the owner) in older Australians' portfolios more than tripled, and its share of total assets surged from 11 per cent to 16 per cent. This is consistent with Seelig et al.'s (2009) qualitative study which finds that retirees (and other Australians) favour 'bricks and mortar' investment as a conservative low risk investment option that generates regular weekly income payments. In comparison, there can be a reluctance to invest in shares because returns would not be received with the regularity desired.[61]

Among older Australian homeowners, average primary home debt is consistently higher among those who also own other properties. Indeed, the divergence in average real primary home debt between those who have versus those who do not have other property widened between 2002 and 2010, from $29 000 in 2002 to $125 000 in 2010. It would appear that older Australians are inclined to use other property investments as collateral backing borrowings against the primary home where they are able to do so.

Unlike other property in asset portfolios and in spite of strong growth in house prices, the primary home accounted for an unchanging share of older Australians' total assets, remaining steady at around 45 per cent over the last decade. The share of the primary home in older Australians' portfolios will depend upon both the rise in house prices, and the percentage of the population holding owner-occupied property. The proportion of older Australians who are homeowners declined slightly from 80 per cent in 2002 to 78 per cent in 2010. On the other hand, the proportion of older Australians who own other properties rose from 19 per cent to 23 per cent in 2006; this percentage remained constant at 23 per cent in 2010. Moreover, it is interesting to note that the proportion of older homeowners owning more than one other property actually increased from 34 per cent to 37 per cent between 2006 and 2010.

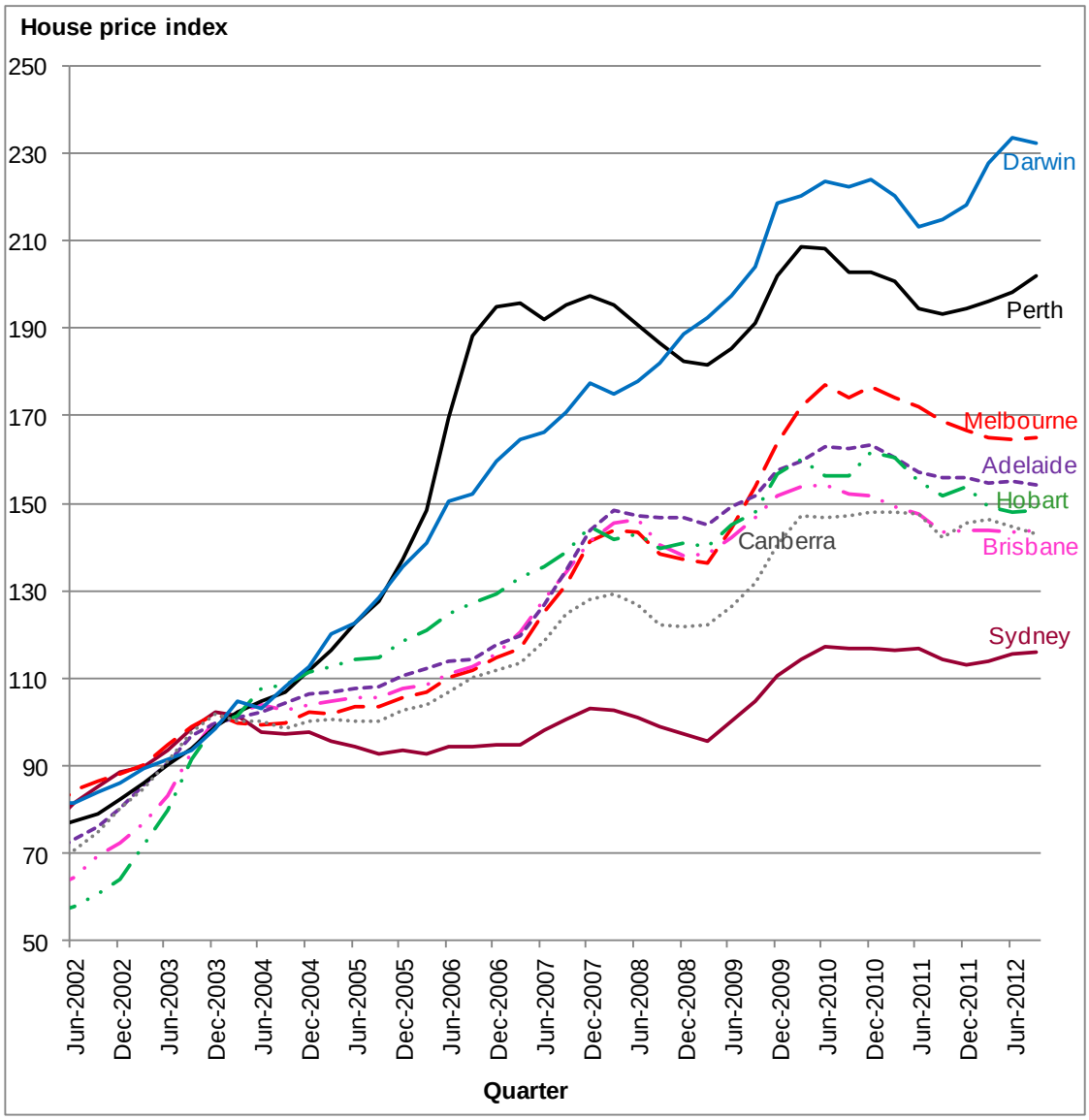
[61] However, it is worth noting that the asset and income test treatment of rental investments may encourage older Australian investors to sell up.

Table 6: Asset and debts of older Australians aged over 45 years, 2002–10

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	2002	**2006**	**2010**	**2002**	**2006**	**2010**
Asset						
Primary home	254.5	441.6	585.7	45.3	43.8	45.5
Other property	59.6	177.5	200.5	10.6	17.6	15.6
Superannuation	110.1	199.9	264.5	19.6	19.9	20.6
Business	23.1	20.1	39.5	4.1	2	3.1
Savings and investments	92	139.4	161.4	16.4	13.8	12.5
Other	22.3	28.6	35.6	4	2.8	2.8
Total	561.6	1,007.1	1,287.1	100.0	100.0	100.0
Debt						
Primary home	24.3	48.9	78.4	61.0	61.5	62.5
Other property	10.2	25.9	38.0	25.8	32.5	30.3
Business	4.2	3.1	6.4	10.5	3.9	5.1
Credit card	0.8	1.2	1.9	2.0	1.5	1.5
Other	0.3	0.5	0.6	0.6	0.6	0.5
Total	39.7	79.5	125.3	100.0	100.0	100.0
Population ('000s)	6,833.7	7,078.8	7,663.3			

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

Figure 5: House price index, Australian capital cities, March 2002 to September 2012 [a]



Note:

a. The price indexes are for established houses, and calculated on an index reference period of 2003–04 = 100 for each of the eight capital cities.

Source: House price index from ABS 2012a

Our older Australians grouping ranges from those in middle age through to the very elderly. It seems that the prominence of the primary home in wealth portfolios is at its greatest among those who are likely to have retired (see Table 7). In 2010, the primary home accounted for 50 per cent of the total assets held by those aged 65 years and over, compared to 46 per cent (42%) among those aged 45–54 years (55–64 years) in the same year.

On the other hand, the share of superannuation is lowest in the oldest age group, accounting for only 16 per cent of their total assets compared to between 20–25 per cent of the total assets of those aged 45–64 years. Most of the prime income-earning years of those aged over 65 years in 2010 would have preceded the introduction of the compulsory superannuation guarantee in 1992. Hence, the oldest age group have had significantly less opportunity to benefit from introduction of the compulsory superannuation guarantee. As a result of these differences in savings patterns, wealth

portfolios become less diversified in the older age groups. The Herfindahl index can be used to measure whether wealth portfolios are diversified or concentrated on one or two assets. It is calculated as the sum of the squared values of each asset's share in total wealth portfolios, and has a range between 0 and 1, with lower values indicating a more diversified wealth accumulation strategy. It takes on an average value of 0.657 for those aged over 65 years. In comparison, the mean Herfindahl index for those aged 55–64 years (45–54 years) is 0.554 (0.549). The highest index value for the oldest age group reflects the higher concentration of housing in their asset portfolios and suggests that the oldest age group are at greatest risk of disruption to economic wellbeing on exposure to housing market volatility.

On a more reassuring note, the average real value of primary home debt is significantly lower among those aged 65 years and over, at $9000. In comparison, the primary home debt carried by the 45–54 year age group is 16 times the debt carried by those aged 65 years and over. This is to be expected as those aged 65 years and over would have had more time to repay mortgage debt.

The life cycle patterns observed in 2010 are replicated in earlier years. Hence, estimates from 2002 and 2006 are not reported in this section, but have been relegated to Table A2 in the appendix.

Table 7: Asset and debts of older Australians, by age band, 2010

	Mean income unit asset and debt, 2002 price level, in $'000s			**Composition of income unit asset and debt, per cent (calculated based on means)**		
	45–54 years	**55–64 years**	**65+ years**	**45–54 years**	**55–64 years**	**65+ years**
Asset						
Primary home	568.5	653.8	542.7	45.6	41.9	50.0
Other property	235.8	238.4	129.3	18.9	15.3	11.9
Superannuation	250.2	385	171.6	20.1	24.7	15.8
Business	43	61.9	15.7	3.5	4	1.4
Savings and investments	108.7	180.8	199.5	8.7	11.6	18.4
Other	40	40.9	26.1	3.2	2.6	2.4
Total	1,246.2	1,560.8	1,084.9	100.0	100.0	100.0
Debt						
Primary home	142.8	79.8	9.0	64.4	63.0	40.3
Other property	67.5	35.4	9.3	30.4	27.9	41.6
Business	6.9	9.1	3.6	3.1	7.2	16.0
Credit card	3.4	1.9	0.4	1.5	1.5	2.0
Other	1.3	0.4	0.0	0.6	0.3	0.2
Total	221.8	126.6	22.4	100.0	100.0	100.0
Population ('000s)	2,739.7	2,327.2	2,596.5			

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

There is another demographic dimension to the asset and debt profile of older Australians that is particularly noteworthy. Women have longer life expectancies than

men, are more likely to experience interrupted careers during child-bearing and child-rearing years, less inclined than men to re-marry following a marital breakdown and more likely to have been adversely affected by their inability to access superannuation accumulations on divorce prior to a regulatory change in 2001 (Jefferson & Preston 2005; Sheehan 2002). The interaction of these factors causes women to be more vulnerable to economic shocks as they age. Indeed, as Table 8 shows, single older women are more exposed to property risk, and have lower levels of superannuation and liquid assets than do single older men. Indeed, the asset and debt composition of single older men mirror that of partnered older persons. It is single older women, who stand out, having almost two-thirds of their total assets, and three-quarters of their total debt, tied up in the primary home. While the tables here do not present further breakdowns by age, we can report that reliance on the primary home as one's main form of asset is greatest among women who are single and aged 65 years and over. The numbers in this group will grow; women are disproportionately represented within the older population, comprising two-thirds of those aged over 85 years (Sharp & Austen 2007).

Once again, 2010 differences in patterns across income unit types are replicated in earlier years. Hence, estimates from 2002 and 2006 are not reported in this section, but have been relegated to Table A3 in the appendix.

Table 8: Asset and debts of older Australians, by income unit type, 2010 [a]

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	Single men	**Single women**	**Partnered persons[a]**	**Single men**	**Single women**	**Partnered persons[a]**
Asset						
Primary home	284.6	359.9	681.1	49.5	62.2	43.9
Other property	69.0	63.7	251.0	12.0	11.0	16.2
Superannuation	108.2	71.7	331.3	18.8	12.4	21.3
Business	0.2	0.0	54.3	0.0	0.0	3.5
Savings and investments	94.4	72.9	191.4	16.4	12.6	12.3
Other	18.5	10.9	43.7	3.2	1.9	2.8
Total	574.9	579.1	1,552.8	100.0	100.0	100.0
Debt						
Primary home	32.9	29.5	96.2	64.0	74.1	61.8
Other property	14.5	8.5	48.2	28.2	21.3	30.9
Business	2.0	0.0	8.5	3.9	0.1	5.5
Credit card	1.5	1.2	2.2	2.9	2.9	1.4
Other	0.5	0.6	0.6	0.9	1.6	0.4
Total	51.4	39.8	155.7	100.0	100.0	100.0
Population ('000s)	809.9	1,277.0	7,659.7			

Note:

a. Due to the income unit asset and debt measurement method applied in this chapter, a man and a woman belonging to the same income unit will have the same asset and debt levels. Hence, partnered men and women have similar levels of wealth and are grouped into one category.

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

Snapshots of the asset and debt profiles of older Australians over the years 2002, 2006 and 2010 highlight a key and unchanging theme; the primary home, and property in general, remain the dominant form of wealth accumulation in later life. The resilience of Australian housing markets contrasts sharply with the weakness evident in world sharemarkets, and this helps explain superannuation's stagnant share of older Australians wealth portfolios. The primary home and other property perform an increasingly important role, both as a store of wealth in asset accumulation strategies and as collateral against which debt can be secured.

4.3 The mortgage debt of older homeowners

We have shown that debt secured against property (the primary home and other property) has climbed among all older Australians (owners and renters). In this section we narrow our focus to older homeowners. Owner-occupied housing's importance as a pillar supporting retirement incomes policy, and as a buffer stock of wealth in the event of emergencies in old age, could be threatened if growing numbers are approaching retirement age as mortgagors with increasing levels of indebtedness.

We first address this issue by invoking repeated cross-sectional data from the ABS's Income and Housing surveys that span almost three decades from 1982 through to 2009.[62] The use of long-run data allows us to observe changes in borrowing behaviour among successive homeowner cohorts over a period when financial markets underwent significant changes. Financial deregulation was well underway from the 1980s. Massive increases in lending and borrowing activities were witnessed in the 1990s and early 2000s when house prices increased rapidly. However, by the latter part of the decade, financial markets had crashed as a result of the GFC. Were owner-occupiers in the 1990s and early 2000s emboldened to take on larger mortgage debts against their homes, their confidence buoyed by booming housing markets during this era of deregulation? And did we witness a return to prudent borrowing behaviour among more recent homeowner cohorts in the post-GFC era? The use of long-run data also allows us to make more decisive judgements about whether any increase in mortgage indebtedness is an unusual phenomenon in the context of historical trends.

Figure 6 presents some striking trends for each of five age groups ranging from 25–34 years to 65 years and over. With the exception of those aged 65 years and over, whose debts remain low, mortgage indebtedness rose significantly among all other age groups between 1982 and 2009. Among those of pre-retirement age, the rise in mortgage indebtedness coincided with the start of the house price boom in the mid-1990s. Between 1996 and 2009, the proportion of 35–64-year-old homeowners with a mortgage debt climbed by over 20 percentage points. Even during the post-GFC phase (2007–09), mortgage indebtedness continued to climb, albeit at a slower rate than during the period of rapidly rising house prices (2002–07). Parkinson et al. (2009) show that in both Australia and Great Britain large numbers of young and middle aged owners (particularly couples with children) used flexible mortgage products to tap into housing wealth. Part of this increase in the number of 35–64-year-old mortgagors is likely due to the growing incidence of mortgage equity withdrawal. The bar chart in Figure 7 compares the loan-value ratios of mortgagors in each of the same five age

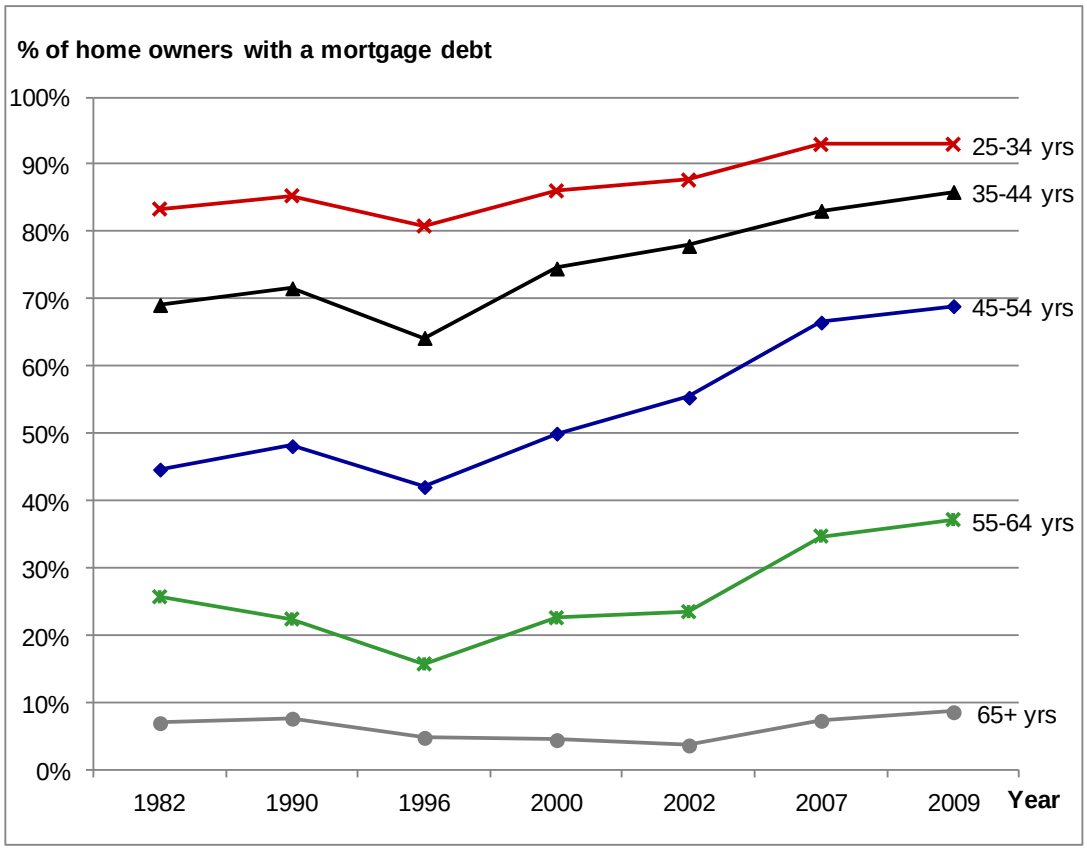
[62] A similar exercise was conducted in Wood and Ong (2012), over a slightly shorter timeframe of 1982–2007 and using the household as the unit of analysis. The analysis presented in this report uses the individual as the unit of analysis in keeping with the unit of measurement used in the rest of this report. Despite differences in the unit of analysis, the trends in this report are similar to those reported in Wood and Ong (2012), and the extension of the timeframe in the present analysis allows us to observe trends in the post-GFC era not captured in Wood and Ong (2012).

bands (25–34 years to 65 years and over). With the exception of the post-retirement age group there is a rise in gearing; the increase in the youngest age band (25–34) is as much as 20 percentage points. Even those approaching retirement age (55–64 years) are gearing up with LVRs rising from 22 per cent to 28 per cent, an increase of six percentage points. These two figures reveal some important long run trends; more Australian homeowners are securing debt against property later in their lives, and are increasingly inclined to secure debt against their housing wealth.

Curiously, persons 65 years and above are defying these long run trends. A much more conservative borrowing profile is apparent; the proportion with outstanding mortgage debt has remained very low (below 10%) over the nearly 30-year timeframe, and in 2009 remained much the same as it was in 1990. Even those with a mortgage showed no inclination to gear up against their housing wealth. But how has their indebtedness remained low when pre-retirement age groups are becoming more indebted? A potentially important explanation is the use of lump sum superannuation to pay off mortgages on retirement; if true the divergent patterns in Figures 6 and 7 could well reflect the use of mortgages to tap into superannuation balances before retirement.

While not graphically illustrated here, it is also worth highlighting that though partnered persons and single men are more likely to have a mortgage debt against their primary home than single women, the incidence of mortgage indebtedness has risen the most among single older women, by 11 percentage points, from 24 per cent to 35 per cent.[63]

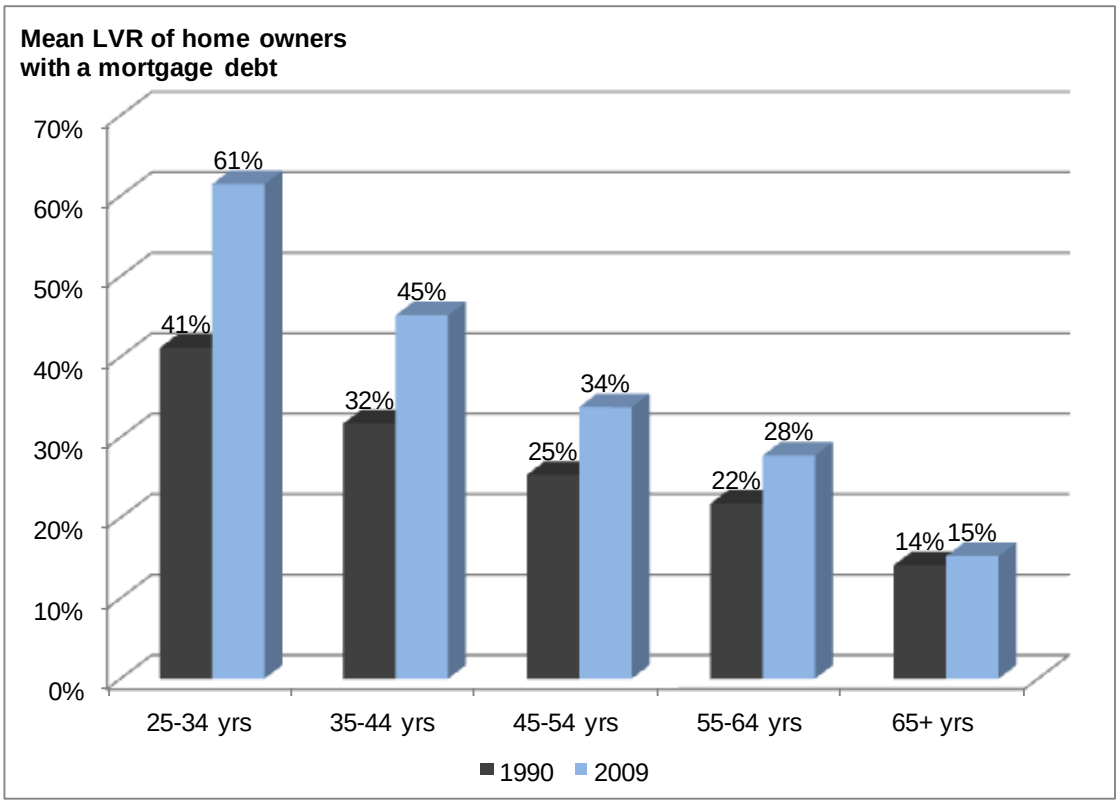
Figure 6: Percentage of homeowners with a mortgage debt, 1982–2009



Source: 1982, 1990, 1996, 2002, 2007 and 2009 surveys of income and housing from the ABS

[63] The incidence of mortgage indebtedness among single men (partnered persons) rose from 41 per cent to 46 per cent (52% to 58%) between 1982 and 2009.

Figure 7: Mean LVR of homeowners with a mortgage debt, 1990–2009 [a]



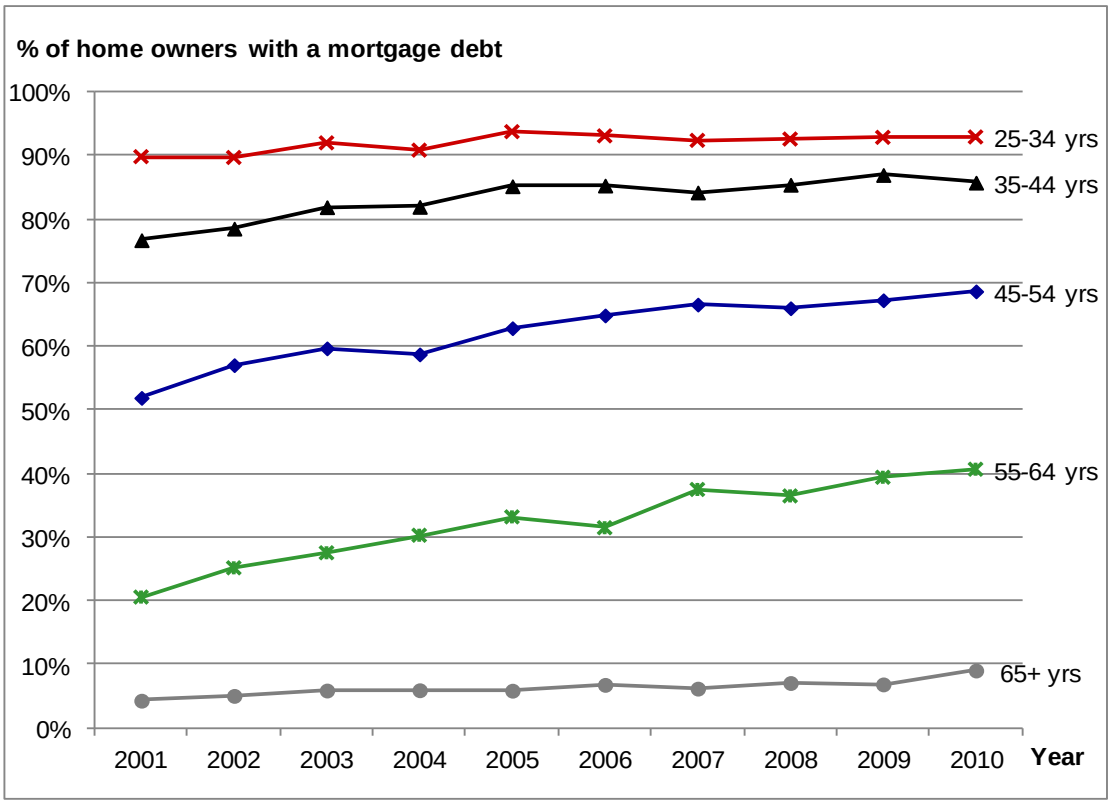
Note:

a. It is not possible to calculate LVRs for 1982 due to the absence of house value and mortgage debt data in the 1982 survey.

Source: 1990 and 2009 surveys of income and housing from the ABS

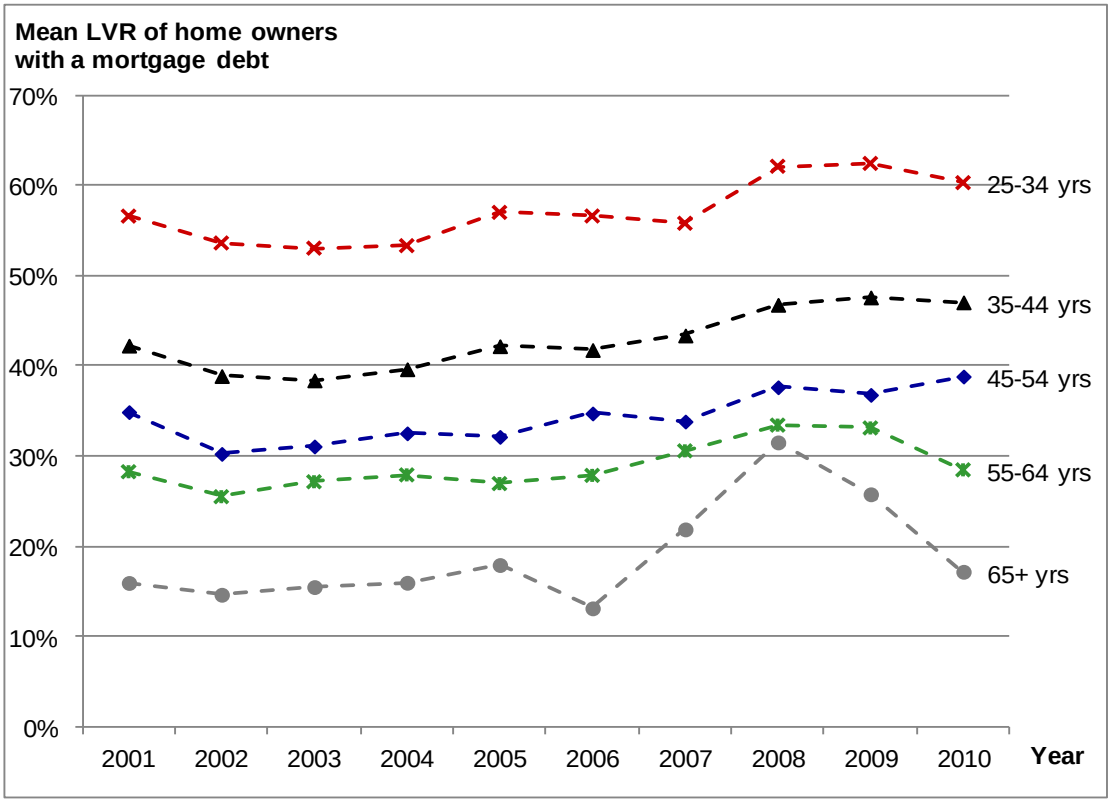
Having charted long-run trends using the ABS Surveys of Income and Housing, we now return to our repeated cross sectional analysis of comparatively shorter run HILDA Survey data (covering the years 2001–10). We are able to use debt and house value variables for homeowners in every year during the 2001–10 timeframe, thereby enabling a year-by-year analysis of borrowing behaviour. This presents an excellent opportunity to test the proposition that debt levels continued to rise post-GFC. Figure 8 suggests that the share of homeowners with a mortgage continued to climb post-GFC among those aged 45 years and over; but among younger homeowners the share did in fact stabilise post-GFC. The average LVR estimates in Figure 9 suggest that in recent years older mortgagors 55 years and over have curbed their borrowing, though LVRs still remain slightly higher than in 2006. However, younger mortgagors continue to gear up against housing wealth, and this is particularly evident among the age cohort 45–54 years.

Figure 8: Percentage of homeowners with a mortgage debt, 2001–10



Source: Authors' own calculations from the 2001–10 HILDA Survey

Figure 9: Mean LVR of homeowners with a mortgage debt, 2001–10



Source: Authors' own calculations from the 2001–10 HILDA Survey

Table 9 analyses the incidence of MEW by the same five homeowner age groups in each year from 2002–2010. It confirms that regardless of year, and hence independent of house price trends, younger homeowners are more inclined to MEW. In the two youngest age groups (25–34 years; 35–44 years) between one-quarter and one-third of homeowners added to their existing mortgages in any one year. The very low incidence estimates for the oldest age band (65 years and over) confirm their conservative attitude and reluctance to add to borrowings in order to meet everyday spending needs. Use of MEW is highest among the groups that have become most indebted (see Figures 8 and 9). The trends over the decade are mixed. In the early years of the new millennium when house prices were booming the two youngest age groups seemed more disposed to MEW, but in the post-GFC years their enthusiasm for MEW cooled (or increasing numbers found that borrowing constraints were binding). On the other hand our oldest two groups of owners continued to MEW more frequently even though house price growth had slowed post-GFC. It is possible that the over-55-year-old groups were more exposed to risks in the post GFC era, and were therefore forced to unlock housing wealth more often to meet emergencies. But this is speculation; further research is required here before anything more definitive can be added.[64]

Table 9: Incidence of MEW among homeowners, by age band, 2001–10, per cent

Year	25–34 yrs	35–44 yrs	45–54 yrs	55–64 yrs	65+ yrs
% of homeowners who engaged in MEW					
2001–02	26.5	26.0	18.4	8.3	2.0
2002–03	33.3	30.3	24.9	10.5	3.8
2003–04	34.0	27.3	23.1	9.9	1.5
2004–05	34.0	33.2	25.8	12.7	3.7
2005–06	30.7	32.2	23.0	10.1	3.0
2006–07	28.8	33.7	28.8	14.3	2.5
2007–08	30.1	30.2	23.4	13.6	3.8
2008–09	29.6	27.3	22.4	15.1	3.1
2009–10	24.7	27.1	24.3	16.0	4.0
% point change in the incidence of MEW					
2001–02 to 2006–07 (boom period)	2.3	7.7	10.4	6.0	0.6
2007–08 to 2009–10 (post-GFC)	-5.4	-3.1	0.8	2.4	0.2
2001–02 to 2009–10	-1.9	1.1	5.9	7.7	2.0

Source: Authors' own calculations from the 2001–10 HILDA Survey

4.4 How do asset and debt portfolios change as ageing occurs?

The panel nature of the HILDA Survey allows us to introduce a longitudinal aspect into the analysis, and to profile changes in the asset and debt portfolios of a panel of Australians as they age and transition into their retirement years. To conduct such analyses we use a balanced sample design as described in Section 4.1. The profiles

[6464] These hypotheses will be tested empirically in the Final Report of this project.

offer interesting insights into decisions about wealth accumulation in later life.[65] For example, at what point in the life course does wealth accumulation slow and/or asset divestment become evident as predicted by life cycle theories of saving and consumption? What happens to the portfolio composition of older Australians as they age? Does their wealth become more and more concentrated in housing assets, exposing them to greater house price risk as they age?

Finally, for older Australians, a critical decision during their retirement transition years occurs when they reach their superannuation preservation age.[66] We have established that debt burdens are largely accounted for by mortgages secured against the primary home (Section 4.3), and that an increasing number and share of homeowners are entering their middle and later years with mortgages that have still to be paid off. The question therefore arises as to whether older homeowners draw down on their superannuation reserves in order to pay off their mortgage debt once they reach their superannuation preservation age. The answer has important ramifications for retirement incomes policy in Australia. In an era of fiscal austerity, homeowners are increasingly encouraged both explicitly and implicitly by government to rely on their housing assets as a base for welfare. There are others who may be drawing down on their housing equity to fund retirement lifestyles over and above basic needs. Regardless of motive, we have noted in Section 4.3 the growing tendency to use MEW to channel funds from housing equity to consumption and the associated increased indebtedness among those approaching retirement. If superannuation funds are being used to pay off housing debts post-retirement, then growing numbers of older Australian homeowners will have to rely on government income support as their main source of retirement funding. If this behavioural pattern is emerging, then government budgets will come under increasing pressure, as the pool of ageing Australians in need of income support will undoubtedly grow.

4.4.1 Change in portfolio composition as ageing occurs

Table 10 tracks changes in the composition of asset and debt portfolios as three birth cohorts grow older over the period 2002 to 2010. The three birth cohorts are all drawn from Australians aged 45 years and older in 2002; the youngest (baby boomers) cohort was born between 1948 and 1957 and is between 45 and 54 years of age in 2002. This birth cohort will still be ineligible for the age pension in 2010, and we would expect most in this age group to remain active in the labour force.[67] The intermediate birth cohort was born between 1938 and 1947 ('war babies') and is between 55 and 64 years of age in 2002. Most of this war baby cohort will retire from the labour force by 2010.[68] Finally our oldest birth cohort were all born before 1938 (pre-war) and is 65 years or older in 2002. The majority of the pre-war cohort has already retired by 2002.[69]

All birth cohorts increasingly tie up their wealth in residential property (primary home and other property) as they age. Liquid financial assets (bank deposits, shares, bonds and so on) become less important as a store of wealth for all cohorts (other than the baby boomers), while all three reduce their reliance on business assets. Progression to later stages of the life cycle also has similar effects on debt. Ageing seems to encourage all three birth cohorts to secure a rising share of total debt against

[65] Note, however, that changes in stocks on assets will reflect changes in the value of assets as asset prices rise or fall, as well as behaviour with respect to saving and portfolio balance. When asset prices are particularly volatile, valuation effects will dominate.
[66] This is the age at which one is allowed to withdraw funds from superannuation balances.
[67] 89 per cent of baby boomers had not yet retired in 2010.
[68] 72 per cent of the 'war babies' had retired by 2010.
[69] 86 per cent of the pre-war cohort had retired by 2002.

residential property (primary home and other property), though this trend is stronger among the pre-war and war baby cohorts. There is a fall in the share of business and other debt as each cohort grows older, but again this is stronger among pre-war and war baby cohorts. In short, as each of our cohorts age residential property becomes an increasingly prominent asset in wealth portfolios and as collateral securing debt.

The share of assets and debts in the portfolios of the baby boomers showed little variation between 2002 and 2010. This is hardly surprising; this is a phase in the life course when many in this age group are still in the labour force and decision-making surrounding the use of assets in retirement is still some way off for significant numbers who started 2002 in their 40s.

However, larger shifts in the share of selected asset and debt groups are noticeable among the war babies. The majority of those aged 55–64 years old in 2002 are in their 60s and early 70s in 2010. The share of the primary home, and indeed all forms of property assets, grow in importance, while financial assets and debts held in business, savings and investments shrink in importance. This is a phase in the life cycle when retirement is a common occurrence. One-third of the war babies made a transition into retirement between 2002 and 2010, and the decline in importance of business and financial assets reflect this transition.

The importance of the primary home becomes more evident as the pre-war cohort entered their 70s and beyond between 2002 and 2010. Primary home debt increases its share by a significant 27 percentage points, while financial debts decline in importance. Other property debt, too, becomes less important, possibly an indication of the decline in benefits associated with negative gearing as taxable income from earnings drops in old age.

Table 10: Percentage point change in share of key assets and debts in older Australians' portfolios between 2002 and 2010, by age band in 2002

% point change in share of assets and debts	Baby boomers 45–54 yrs in 2002 53–62 yrs in 2010	War babies 55–64 yrs in 2002 63–72 yrs in 2010	Pre-war cohort 65+ yrs in 2002 73+ yrs in 2010
Primary home	-1.8	4.0	7.0
Other property	3.3	3.0	1.6
Superannuation	0.7	1.4	-4.3
Business	-1.2	-3.7	-0.8
Savings/investments	0.3	-2.9	-2.3
Other	-1.3	-1.8	-1.1
Debt			
Primary home	0.3	-5.9	27.4
Other property	2.5	14.9	-9.9
Business	-2.8	-8.3	-10.7
Credit card	0.2	-0.2	-2.7
Other	-0.3	-0.5	-4.1

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey.

4.4.2 Are older Australians drawing down their superannuation wealth to pay off mortgage debts in retirement?

For older Australians, a critical point during their retirement transition years is reaching their superannuation preservation age (the age when superannuation balances can be accessed). The superannuation preservation age varies according to date of birth. Those born after 1 July 1964 (or aged under 38 years in 2002) cannot access their superannuation wealth before turning 60 years of age. On the other hand, those born before 1 July 1960 (or aged 42 years and over during 2002) have a lower superannuation preservation age of 55 years.[70]

Our repeated cross section analysis led us to suspect that superannuation balances are being used by mortgagors to pay off outstanding mortgage debt. In this section we examine this hypothesis by designing a sample of older Australian mortgagors in 2002 (when the first wealth module is available), that retired between 2002 and 2003 and therefore became eligible to access their superannuation in 2003. Our sample therefore includes mortgagors aged at least 54 years old in 2002, and at least 55 years of age in 2003, and retired. By comparing their superannuation wealth levels in 2002 and in the next wealth module in 2006, we can observe whether these mortgagors have drawn down their superannuation reserves since retiring in 2003. By comparing their primary home debt levels over the same period, we can also observe whether they have paid off some or all of their mortgage debt since retiring. The exercise is repeated using mortgagors aged at least 54 years old in 2006, who reached at least 55 years of age in 2007, and had retired between 2006 and 2007. Comparisons are again made between superannuation and primary home debt levels in 2006 and 2010. The two samples are pooled and results reported in Table 11 below.

The mean and median values in Table 11 offer weak support for the hypothesis that older mortgagors are drawing down superannuation balances to reduce mortgage debt. This select sample unlocks wealth tied up in superannuation and businesses; the latter appears to be used to pay off business debts.[71] Reductions in superannuation are correlated with falls in debt secured against the primary home, but the dynamics are complicated by a sharp rise in other property investments and debt secured against other property. Perhaps some retirees are making a calculated decision to rebalance portfolios in favour of residential property. The small sample size of 33 persons is an important caveat.

The HILDA Survey offers another relevant research opportunity because it asks respondents in every wave whether they took out superannuation as a lump sum in the last financial year, and if so, the value of that lump sum. Pooling together all the available waves of the HILDA Survey, we selected those older homeowners with a mortgage at *t* reporting that they made lump sum superannuation withdrawals between *t*-1 and *t*. The number of superannuation withdrawals across the 10 waves remains small at 37, though when population weights are applied, the number amounts to 47 800 lump sum superannuation withdrawals over the 10 years.

We find that between *t* and *t*-1, the mean (median) superannuation lump sum withdrawal was $206 600 ($146 000). Interestingly, those who withdrew superannuation as a lump sum between *t*-1 and *t* were much more likely to have reduced mortgage debt over the same period than those older mortgagors who did not withdraw superannuation as a lump sum. Indeed, half of the former group

[70] The preservation age steadily increases in increments of one year for those born between 1960 and 1964.

[71] The decline in mean business assets almost exactly offsets a decline in mean business debts.

managed to reduce their mortgage debt to zero by *t* (compared to only 17% of the latter). Furthermore, among those who withdrew superannuation as a lump sum and reduced mortgage debt concurrently, the mean (median) amount of debt reduction was $109 800 ($68 000), noticeably higher than the amount of mortgage debt reduction among those who reduced mortgage debt without dipping into their superannuation funds.

Reductions in superannuation are also correlated with sharp increases in other property investments. When we compare changes in other property investments made by those who made lump sum superannuation withdrawals during 2002–06 and 2006–10 versus those who did not, we find that 24.3 per cent among those who did make lump sum superannuation withdrawals between 2002 and 2006 had increased the real values of their other property investment as well. In comparison, a lower proportion (20.3%) of those who did not make lump sum withdrawals had increased their other property investment. The disparity between those who made lump sum superannuation withdrawals and those who did not widens even further when we compare the years 2006 and 2010. In those years, 38.4 per cent of those who cashed in lump sums from superannuation balances increased their other property portfolios between 2006 and 2010. In comparison, only 19 per cent of those not making lump sum withdrawals had increased their other property investment.[72] The additional estimates support our speculation that some retirees may be making a calculated decision to rebalance portfolios in favour of residential property. Over the period 2006 and 2010, returns on superannuation funds were adversely affected by the GFC. It would appear that investors are even more likely to shift wealth away from superannuation while favouring increased holdings of housing during periods of economic uncertainty.

[72] The estimates are provided over four-year periods because data on the values of other property are only available in the wealth modules from 2002, 2006 and 2010. Seventy-six (42) older Australians, regardless of tenure of mortgage debt status, made lump sum withdrawals between 2002 and 2006 (2006 and 2010).

Table 11: Change in real value of assets and debts of older homeowners before and after becoming eligible to access their superannuation wealth between wave *t* and *t*+4, $'000s

	Means			Medians		
	Real value at *t*	**Real value at *t*+4**	**Change in real value between *t* and *t*+4**	**Real value at *t***	**Real value at *t*+4**	**Change in real value between *t* and *t*+4**
Asset						
Primary home	520.7	909.9	389.2	391.5	624.9	233.4
Other property	340.0	507.7	167.7	167.7	335.4	167.7
Superannuation	369.7	360.0	-9.8	279.5	212.5	-67.0
Business	18.6	13.0	-5.6	0.0	0.0	0.0
Savings and investments	93.9	103.3	9.4	23.8	21.5	-2.3
Other	27.1	31.7	4.5	22.4	25.0	2.6
Total	1,370.0	1,925.4	555.5	1,292.8	1,886.0	593.2
Debt						
Primary home	189.3	100.5	-88.7	165.0	0.0	-165.0
Other property	10.0	94.7	84.7	0.0	0.0	0.0
Business	5.7	0.0	-5.7	0.0	0.0	0.0
Credit card	2.5	2.8	0.3	0.0	0.0	0.0
Other	1.1	0.7	-0.5	0.0	0.0	0.0
Total	208.5	198.7	-9.9	194.5	44.7	-149.8
Sample	33					
Population ('000s)	41.8					

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

Table 12: Change in mortgage debt and superannuation lump sum withdrawal between *t*-1 and *t*, homeowners with a mortgage at time *t*-1

Change in mortgage debt and superannuation	Withdrew superannuation lump sum between *t*-1 and *t*	Did not withdraw superannuation lump sum between *t*-1 and *t*
Superannuation lump sum withdrawal amount ($'000s)		
Mean	206.6	n.a.
Median	146.0	n.a.
% who reduced mortgage debt between *t*-1 and *t*	84.9	58.1
Change in mortgage debt (among those who reduced mortgage debt between *t*-1 and *t*)		
Mean	109.8	71.9
Median	68.0	20.0
% who became outright owners between *t*-1 and *t*	50.0	17.1
Sample	37	14,447
Population ('000s)	47.8	19,014.8

Source: Authors' own calculations from the 2001–10 HILDA Survey

4.5 Summary

To sum up this descriptive work, we emphasise some key preliminary findings.

Firstly, housing wealth is the most important store of wealth for Australia's ageing population. It also performs an important role as collateral against which debt can be secured. Its importance is especially pronounced in the asset and debt portfolios of those aged 65 years and over as well as single older women, two groups that have noticeably undiversified portfolios relative to the rest of the older population.

Mortgage indebtedness has clearly risen over the long-run for most age groups. Between 1996 and 2009, the proportion of homeowners with a mortgage debt climbed by over 20 percentage points among those aged 35–64 years old. Interestingly, even during the post-GFC phase (2007–09), mortgage indebtedness continued to climb, albeit at a slower rate than when house prices were peaking over the boom period. Preliminary estimates suggest a growing appetite for MEW among older Australians, especially those aged 45–64 years, over the period 2001–10.

There are hints of an emerging pattern of behaviour; as growing numbers of older Australians enter retirement with non-negligible amounts of mortgage debt, some 40 600 (or 84.9% of all lump sum superannuation withdrawals by older homeowners with a mortgage) may have been used to pay down mortgage debt during the period 2001–10.

These findings have some noteworthy preliminary policy ramifications in an era in which reliance on one's own housing assets is increasingly nurtured through government reforms and the continued proliferation of financial products which facilitate the release of housing equity for consumption purposes in later life. We tease out these potential policy implications in the concluding chapter.

5 CONCLUDING COMMENTS AND FUTURE RESEARCH DIRECTIONS

This Positioning Paper presents background material that will inform this project that aims to uncover the uses, financial costs and risks of HEW by older Australians. In particular, the Positioning Paper has:

- Described the policy context of this project.
- Developed a typology that provides the framework for systematically describing and comparing various HEW mechanisms.
- Conducted an international literature review that has highlighted how institutional settings and the generosity of public pension systems can influence decisions to HEW in mid-to-late life.
- Presented a descriptive analysis that assesses the importance of housing assets and debts within the portfolios of Australia's ageing population, and the extent to which HEW weakens the effectiveness of housing wealth as a pillar within Australia's retirement income system.

In Section 5.1, we will draw together the key themes that have emerged from the preceding chapters. We conclude in Section 5.2 with an outline of the methodology we propose to implement in the next stage of this project.

5.1 Concluding comments

The research reported in this Positioning Paper has uncovered three key features of HEW by older homeowners in Australia.

First, wealth stored in the primary home remains the most dominant asset in the portfolios of most older persons in Australia. The GFC has not reversed the housing bias in portfolios. Older single women and all those aged over 65 years are particularly reliant on housing assets. Their wealth is concentrated in the primary home and superannuation balances are relatively low. Nevertheless, the over-65s are reluctant to dip into housing wealth to help maintain living standards in old age.

Second, Australia's institutional settings appear to be more conducive for HEW than in other countries. It has an extremely well-developed mortgage market that was not significantly affected by the GFC, and its relatively large private rental sector make selling up and renting a more realistic option than in countries with smaller private rental markets (e.g. the UK). Furthermore, the significant house price appreciation experienced in Australia over the last few decades as well as the exemption of the primary home from CGT have fuelled incentives to cash out capital gains. The new mortgage products that have emerged since financial system deregulation have also helped by transforming housing wealth into a liquid asset such that borrowers can draw down their housing equity as and when they choose. For *working age* Australian homeowners there is now convincing evidence that HEW is being used to fund everyday consumption needs. There is a contrast here with homeowners that have already reached retirement age, who appear to view housing wealth as precautionary savings that are only rolled out in extreme circumstances. The literature suggests that this reluctance is also evident among retired homeowners in countries such as the Netherlands, Finland and Germany.

This leads us to the third key finding, which relates to the implications of HEW for the robustness of housing wealth as an asset base in old age. Government policies (e.g. tax expenditures and concessionary asset tests) that encourage accumulation of wealth in the primary home are a cornerstone of Australian social policy. These

policies are prefaced on the assumption that homeowners will own their homes outright in old age, hence lower incomes in retirement will be matched by low housing costs, and retirees can therefore get by on smaller pensions (Castles 1998; Baxter & McDonald 2005). However, homeowners that use HEW to meet spending needs earlier in their life cycle will eat into housing wealth. The statistical analysis reported in Chapter 4 confirmed that more and more older Australians are approaching retirement with outstanding mortgage debt, a trend that (on early indications) has not been reversed by the GFC. The analysis further suggests that some may be paying off their mortgage debt using lump sum superannuation payouts that become accessible on reaching the preservation age. Those who do not will presumably continue making regular mortgage repayments after they retire. While this might constitute a rational decision on the part of homeowners with mortgages to pay down their mortgage debt with their superannuation upon entering retirement, there is no doubt that such moves will result in increasing pressure on the age pension system, as superannuation funds and pensions are drained to repay mortgage debts that are still outstanding as retirement approaches. Since the 1990s housing's role as a pillar supporting retirement incomes policy has weakened as baby boomers use their housing wealth to bring forward superannuation balances and smooth consumption during their working lives.

There are two other important trends that have relevance. Wood and Ong (2012) argue that the edges of home ownership are now more fluid as growing numbers of Australians churn back and forth between owning and renting, or even permanently fall off the 'home ownership ladder'. First transitions into ownership are no longer the secure foothold they once were, and this is particularly evident among the casualties of relationship breakdown. Those on the edges of home ownership confront a particularly uncertain future housing career that threatens their security in retirement. Moreover, the fact that MEW has become quite routine among working age Australian homeowners in the new millennium was clearly fuelled by soaring house prices in the period 1996–2007; high real house prices were sustained in the post-GFC period and it seems that homeowners in their middle years have continued to use MEW. Indeed the incidence has risen in the post-GFC period among the 45–64 year age group. But there is a tension here that may undermine MEW for younger Australians. High real house prices impede access to home ownership and higher debt stress means that more and more Australians are losing home ownership status. There are then polarising trends; those Australian homeowners that succeed in securing that status throughout the life course can take advantage of the fungible housing wealth that is inflated by rising real house prices. On the other hand, there are increasing numbers of Australians that are unable to fall back on housing wealth as a welfare resource.

5.2 Future research directions

The research reported in this Positioning Paper has provided important material to inform the key research aim of this project. To recap, this project aims to uncover the uses, financial costs and risks of HEW via alternative mechanisms by older Australians. It seeks to make a policy contribution by providing a comprehensive evidence base for policies and programs aimed at maximising the availability and quality of information to support Australians in their decision-making about housing equity in later life.

The next stage of the project will build on the preliminary evidence in this Positioning Paper by directly addressing the project's key research questions via a mixed methods framework. It will use a web of inter-related methodologies to triangulate findings.

5.2.1 *Research question 1: To what extent are older Australians tapping into their housing equity via alternative mechanisms, and what are they using HEW for?*

Statistical analysis of national data will be carried out to address the project's first key research question. We will continue to tap into the nationally representative and longitudinal HILDA Survey to identify the prevalence of three key HEW mechanisms used by older Australians, that is in situ MEW, trading on, and selling up to move into rental housing.

We are mindful (see Section 4.1) that the needs of older Australians will change as they age and it is therefore sensible to make a distinction between different age groups. Specifically, we will exploit expenditure data in the 2005–10 HILDA Survey to analyse the likely uses of HEW in later life by measuring associations between expenditure patterns and alternative HEW mechanisms over the life course.[73] Such analysis will offer insights into whether HEW is increasingly used as a financial buffer by older persons as they transition into retirement, and then experience increasing physical frailty in retirement. In our study, the Productivity Commission's (2011) Aged Care Equity Release scheme is of particular interest here, as its recommendations encourage reliance on housing as an asset base for welfare. The report considers the use of housing wealth to fund aged care needs. Hence, scenario modelling will be conducted to estimate the amount and share of equity among the elderly that will likely have to be diverted towards aged care costs in order to sufficiently fund their aged care needs in old age. The feasibility of this scheme will be assessed, as judged by whether it leaves elderly homeowners with levels of housing equity sufficient to meet bequest motives and other needs (e.g. funeral expenses).[74]

5.2.2 *Research question 2: What are the costs and risks of using HEW in later life, and how do these vary across the older population according to socio-economic groups and across scenarios relating to tax-benefit settings and asset price changes?*

The research reported in this Positioning Paper has already partially addressed the project's second research question by reviewing the costs and risks associated with key forms of HEW in later life within a range of institutional settings. We will further address this research question by invoking empirical analysis to estimate the risks and costs of alternative forms of HEW in later life in Australia.

This Positioning Paper has already identified the primary forms of risks attached to HEW as being house price risk, interest rate risk and negative equity risk. The next stage of the project will model the extent to which older homeowners are exposed to these three forms of risk using data from the 2001–10 HILDA Survey. The timeframe of the HILDA Survey offers a valuable opportunity to investigate how exposure to these risks vary under changing boom and bust conditions, as proxied by the earlier and later years of the last decade respectively. Our empirical estimates will offer indications of the impact of housing market volatility on the gains from HEW by comparing the levels of equity withdrawn by older homeowners during a housing market slump as compared to those who withdrew equity during a house price boom in the last decade. The empirical analysis will also shed light on whether in situ MEW

[73] As in situ MEW is expected to be the main form of HEW in later life, we will also seek to supplement the HILDA data estimates by drawing information from the 2007–08 Survey of Income and Housing Survey (SIH) and the 2003–04 Household Expenditure Survey (HES), which contain direct questions on uses of loans secured against the primary home.

[74] Previous work by Ong (2010) identified that most older Australians engaging in MEW wish to retain at least 50 per cent of their housing equity at the end of their loan.

has eaten into housing equity such that older Australians are increasingly prone to interest risk and negative equity risk in later life.[75]

In relation to the costs of HEW, the existing literature has identified a lack of studies that offer detailed evaluations of how the operation of the tax system affects the consequences of using HEW to support consumption in retirement, and/or make intergenerational transfers. Here, we will invoke tax-benefit modelling to generate an evidence base that addresses this critical gap in the literature. Using AHURI-3M, a housing market microsimulation model that is operationalised using the 2001–10 HILDA Survey and contains detailed contemporaneous parameters of the Australian tax-benefit system, we will conduct three tax-benefit modelling exercises. The first is an estimate of the extent to which the stamp duty on conveyance (and brokerage costs) eats into the amount of housing equity withdrawn by older Australians when trading on. This will be followed by an assessment of the impacts of downsizing proceeds on asset test limits and subsequent income support payment entitlements. Third, we will estimate the tax-benefits consequences should older homeowners transfer their homes to other family members. Gifting property to relatives is common following a move into an aged care facility.

5.2.3 Research question 3: How do older Australians perceive the different mechanisms for HEW and how do these perceptions influence decisions about the use of HEW?

The project's third research question relates to perceptions of HEW, a variable that is to our knowledge not observable from any secondary dataset in Australia. Hence, we will conduct an embedded qualitative data collection analysis to specially address this research question (Creswell & Plano-Clark 2007). The process for qualitative data collection and analysis has been approved under Curtin University's Human Research Ethics processes (approval number HR18/2011). Qualitative data will be collected through individual, face-to-face semi-structured interviews that are recorded and transcribed.[76]

A program of 35 interviews is envisaged in the research budget. Thirty of these interviews are to be undertaken with older homeowners in Perth, Adelaide and Sydney.[77] Participants have been selected from different age groups (45–54 years; 55–64 years; 65–74 years; and 75 years and over), household types (single person and couple households), sex and home ownership status (with mortgage, fully owned). A further five interviews are planned with staff from organisations that provide support to older Australians contemplating HEW (e.g. the Department of Families, Housing, Community Services and Indigenous Affairs and seniors organisations). Their views of support services used and needed by older Australians using HEW will be elicited.

The sample for these interviews is theoretical (or purposive) rather than statistical. In the logic of sampling based on a *theoretical or purposive strategy*, units are chosen

[75] However, it should be noted that while there are risks attached to HEW, investment in other assets such as shares and superannuation are subject to significant risks too, as evidenced by the relatively large losses incurred in the shares and superannuation sectors compared to the housing sector. However, an examination of risks of investment in non-housing assets is beyond the scope of this project.

[76] The process of recruitment, piloting of the interview schedule and initial interviews have already begun at the time of writing this Positioning Paper.

[77] At the time of writing this Positioning Paper, 52 hard copy invitations to participate have been distributed via the Council on the Ageing Western Australia (COTAWA) and electronic invitations have been distributed nationally through a newsletter produced by National Seniors. One participant from Melbourne who responded to the invitation to participate was also included as his profile added diversity to the range of participants and could be readily interviewed by a research team member.

not for their representativeness, but for their relevance to the research question, analytical framework and narrative being developed in the research project (Schwandt 2007). At the outset, identified variables and causal relationships are not defined. Initial sampling is carried out with the aim of developing themes and categories directly from data. The broad theme for the data is defined by the research question and, in an embedded study such as this, further shaped by the questions underlying the analysis of HILDA data. However, within this framework, themes and categories of issues raised by interview participants are developed in an iterative process that allows for key issues to emerge from the data. Ideally, further sampling is then carried out to refine and develop these themes and categories. Further data collection is typically seen as unnecessary once 'saturation' has occurred. That is, no new themes or conceptual insights are emerging from additional data collection.[78]

Throughout the analysis data will be managed using N*Vivo9 software. The analytical approach to this stage of the inquiry will be twofold. Firstly we will analyse all transcripts using a constant comparison approach to open coding. This will allow key concepts and constructs relevant to perceptions and plans on HEW. We will also identify key areas of commonality and uniqueness among participants' perceptions. Secondly, by comparing perceptions of the risks attached with various HEW options with the results of the empirical modelling, we will identify the extent to which attitudes to HEW appear to be based on an understanding of the costs and risks of available options.

5.2.4 Research question 4: What financial products can be introduced to mitigate the risks associated with HEW in older age?

We will extend the international review already reported in this Positioning Paper by canvassing what is known about financial instruments that reduce the risks of HEW in later life for the consumer. Collated findings that address the three previous research questions, together with material uncovered from this review, will form the basis of our recommendations of financial products (e.g. insurance products) which can mitigate risks associated with withdrawing housing equity in later life.

[78] In practice, the need to define samples and associated data collection costs and budgets before a project commences means that the size of samples is determined by factors other than saturation. For the project, the decision to include 30 interviews in the data collection and analysis process was based on patterns in previous studies which suggest that a program of 30 interviews is likely to generate sufficiently rich data to generate insights and emergent concepts (Miles & Huberman 1994; Mason 2010).

REFERENCES

Australian Bureau of Statistics (ABS) 1995, *Australian social trends, 1995*, cat. no. 4102.0, ABS, Canberra.

——1999, *Demographic variables, 1999*, cat. no. 1285.0, ABS, Canberra.

——2011a, *Australian social trends, March 2011*, cat. no. 4102.0, ABS, Canberra.

——2011b, *Migration, Australia, 2009–10*, cat. no. 3412.0, ABS, Canberra.

——2012a, *House price indexes: Eight capital cities, September 2012*, Time Series Spreadsheets, cat. no. 6416.0, ABS, Canberra.

——2012b, *Year book Australia, 2012*, cat. no. 1301.0, ABS, Canberra.

Alessie, R & Kapteyn, A 2002, 'Huizenprijzen en besparingen' in RJM Alessie, PJA van Els & LH Hoogduin (eds.), *De rol van vermogen in de economie*, Koninklijke Vereniging voor de Staathuishoudkunde preadviezen, Amsterdam, pp.31–56.

Alessie, R, Lusardi, A & Aldershof, T 1997, 'Income and wealth over the life cycle: Evidence from panel data', *Review of Income and Wealth*, vol. 43, no. 1, pp.1–32.

Alessie, R, Lusardi, A & Kapteyn, A 1995, 'Saving and wealth holdings of the elderly', *Ricerche Enonomiche*, vol. 49, pp.293–315.

Angelini, V & Laferrère, A 2011, 'Residential mobility of the European elderly', *CESifo Economic Studies*, vol. 58, no. 3, pp.544–569.

Angelini, V, Brugiavini, A & Weber, G 2011, 'Does downsizing of housing equity alleviate financial distress in old age?' in A Börsch-Supan, M Brandt, K Hank & M Shröder (eds.), *The individual and the welfare state*, Berlin, Heidelberg, Springer-Verlag.

Australian Securities and Investments Commission (ASIC) 2005, *Equity release products*, report 59, <http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/Equity_release_report.pdf/$file/Equity_release_report.pdf> (last accessed 19 December 2012).

——2007, *All we have is this house: Consumer experiences with reverse mortgages*, report 109, <http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/Rep109_reverse_mortgages_Nov07.pdf/$file/Rep109_reverse_mortgages_Nov07.pdf> (last accessed 19 December 2012).

Australian Government 2010, *Australia to 2050: Future challenges*, intergenerational report 2010, <http://archive.treasury.gov.au/igr/igr2010/report/pdf/IGR_2010.pdf> (last accessed 19 December 2012).

Australian Taxation Office 2012, *Guide to superannuation for individuals – Overview*, <http://www.ato.gov.au/individuals/content.aspx?menuid=0&doc=/content/00250233.htm&page=7#P166_12178> (last accessed 19 December 2012).

Ball, M, Harloe, M & Martens, M 1988, *Housing and social change in Europe and the USA*, Routledge, London and New York.

Banks, J, Blundell, R, Oldfield, Z & Smith, JP 2007, *Housing price volatility and downsizing in later life*, Working paper 13496, National Bureau of Economic Research, Cambridge.

Baxter, J & McDonald, P 2005, *Why is the rate of home ownership falling in Australia?* Research and Policy Bulletin, Australian Housing and Urban Research Institute, Melbourne.

Belsky, ES 2010, Housing wealth effects and course of the US economy: Theory, evidence, and policy implications, in SJ Smith & BA Searle (eds.), *The Blackwell companion to the economics of housing: The housing wealth of nations*, Wiley-Blackwell, Chichester, West Sussex, pp.82–104.

Benito, A 2007, *Housing equity as a buffer: Evidence from UK households*, Working Paper 324, Bank of England.

Bishop, TB & Shan, H 2008, *Reverse mortgages: A closer look at HECM loans*, National Bureau of Economic Research, Cambridge.

Bridge, C, Adams, T, Phibbs, P, Mathews, M & Kendig, H 2010, *Reverse mortgages and older people: Growth factors and implications for retirement decisions*, Final Report No. 146, Australian Housing and Urban Research Institute, Melbourne.

—— 2011, *Reverse mortgages and older people*, Research and Policy Bulletin, Australian Housing and Urban Research Institute, Melbourne.

Bundesregierung 2009, *Bericht -über die wohnungs- und immobilienwirtschaft in Deutschland*, Bundesregierung, Berlin.

Bundeszentrale für politische Bildung 2008, *Datenreport 2008*, Ein Sozialbericht für die Bundesrepublik Deutschland, Bonn, Statistische Bundesamt in collaboration with Gesellschaft Sozialwissenschaftlicher Infrastruktureinrichtungen (GESI-ZUMA), and Wissenschaftszentrum Berlin für Sozialforschung (WZB), Bonn.

Consumer Financial Protection Bureau (CFPB) 2012, *Reverse mortgages*, Report to Congress, no place of publication given, CFPB.

Canner, G, Dynan, K & Passmore, W 2002, 'Mortgage refinancing in 2001 and early 2002', *Federal Reserve Bulletin*, December, pp.469–481.

Caplin, A, Cunningham, N, Engler, M & Pollock, F 2008, *Facilitating shared appreciation mortgages to prevent housing crashes and affordability crises*, Discussion paper 2008–12, The Hamilton Project paper, The Brookings Institution, Washington, D.C.

Castles, F 1998, 'The really big trade-off: Home ownership and the welfare state in the new world and the old', *Acta Politica*, vol. 33, no. 1, pp.5–19.

Chiuri, MC & Jappelli, T 2010, 'Do the elderly reduce housing equity? An international comparison', *Journal of Population Economics*, vol. 23, pp.643–663.

Clark, WAV 2011, *Mobility and mobility contexts: Modeling and interpreting residential change in Australia*, Paper presented at the HILDA Survey Conference, Melbourne, 14–15 July.

Cnossen, S 2010, *Three VAT studies*, The Hague, CPB Netherlands Bureau for Economic Policy Analysis.

Conrad, A 2007, 'Das konzept des reverse mortgage—Eine alternative für Deutschland, in *(Österreichisches), BankArchiv*, Heft 8, Springer-Verlag GmbH, Wien.

Creswell, J & Plano-Clark, V 2007, *Designing and conducting mixed methods research*, Sage, Thousand Oaks CA.

Davies, J B & Shorrocks, AF 2000, 'The distribution of wealth', in AB Atkinson & F Bourguignon (eds.) (2000), *Handbook of income distribution*, vol. 1, Elsevier Science BV, Amsterdam, pp.605–675.

De Roon, F, Eichholtz, P & Koedijk, K 2010, *Housing with a silver lining*, paper Tilburg University, October.

Deloitte Touche Tohmatsu and SEQUAL 2011, *Australia's reverse mortgage market reaches $3bn at 31 December 2010*, <http://www.sequal.com.au/images/Media_Releases/australia%5C%27s%20reverse%20mortgage%20market%20reaches%20%243bn.pdf>

——2012, *Australia's reverse mortgage market reaches $3.3bn at 31 December 2011*, <http://www.deloitte.com/assets/Dcom-Australia/Local%20Assets/Documents/news-research/Press%20releases/Louise%20Denver/Media%20Release%20_Australia%20reverse%20mortgage.pdf>

Do, C 2012, 'Withdrawing home equity: Differences across race and ethnicity', *Housing Studies*, vol. 27, no. 3, pp.299–323.

Dol, K & Haffner, MEA (eds.) 2010, *Housing statistics in the European Union*, The Hague, Ministry of the Interior and Kingdom Relations.

Dol, K, van der Heijden, H & Oxley, M 2010, *Economische crisis, Woningmarkt en beleidsinterventies: Een internationale inventarisatie (Economic Crisis, Housing Market and Policy Measures: An International Comparison),* Delft University of Technology, OTB Research Institute for Urban, Housing and Mobility Studies, Delft.

Dolan, A, McLean, P & Roland, D 2005, *Home equity, Retirement incomes and family relationships*, Paper prepared for the 9th Australian Institute of Family Studies Conference, Melbourne, 9–11 February.

Doling, J & Ronald, R 2010, 'Property-based welfare and European homeowners: How would housing perform as a pension?', *Journal of Housing and the Built Environment*, vol. 25, pp.227–241.

Earley, F 2001, 'Mortgage equity withdrawal', Housing finance, vol. 51, pp.21–27.

Ebner, A 2010, *A micro view on home equity withdrawal and its determinants, evidence from Dutch households*, Munich Discussion Paper No 2010-2, Department of Economics, University of Munich, Munich.

Elsinga, M & Doling, J 2012, *Demographic change and housing wealth: Home-owners, pensions and asset-based welfare in Europe*, Springer.

EMF 2010, 'Hypostat 2010. *A review of Europe's mortgage and housing markets*, no place of publication given, European Mortgage Federation.

Flatau, P & Wood, G 2000, 'Comprehensive income measures, housing equity, and tax-transfer effects', *Australian Economic Papers*, vol. 39, no. 3, pp.327–346.

Fornero, E, Rossi, MC & Brancati, MCU 2011, *Explaining why, right or wrong, (Italian) households do not like reverse mortgages*, Netspar Discussion Paper no.

09/2011-086, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1950519> (last accessed 6 March 2013).

Fox, O'Mahony & Overton, L 2013, *Equity release in the UK: Markets, consumers and the role of the state*, Paper presented at the Health, Wealth and Hearth: Perspectives on an Ageing Australia Masterclass, University of Western Australia, Perth, 14 February.

Girouard, N, Kennedy, M, van den Noord, P & André, C 2006, *Recent house price developments: The role of fundamentals*, OECD Economics Department Working Papers, No. 475, OECD Publishing. http://dx.doi.org/10.1787/864035447847.

Gotman, A 2011, 'Towards the end of bequest? The life cycle hypothesis sold to seniors. Critical reflections on the reverse mortgage financial fashion', *Civitas, Porto Algre*, vol. 11, no. 1, pp.93–114.

Greenspan, A & Kennedy, J 2007, *Sources and uses of equity extracted from homes*, Finance and Economics Discussion Series 2007–20, Divisions of Research and Statistics and Monetary Affairs Federal Reserve Board, Washington, D.C.

Haffner, MEA 2002, 'Dutch personal income tax reform 2001: An exceptional position for owner-occupied housing', *Housing Studies*, vol. 17, no. 3, pp.521–534.

—— 2005, *Appel voor de Dorst? Vermogen van Ouderen op de Woningmarkt*, Utrecht: DGW/NETHUR-partnership, no. 29.

—— 2008, Savings for old age? Housing wealth of the Dutch elderly, *Housing, Theory and Society*, vol. 25, no. 2, pp.110–131.

Haffner, MEA & de Vries, P 2010, 'Dutch house prices and tax reform, in M Stewart (ed.), *Housing and tax policy*, Australian Tax Research Foundation, Sydney, pp.151–173, republished in P De Vries, 2010, *TU Delft institutional repository*, <http://repository.tudelft.nl/view/ir/uuid%3A57c33fa8-a663-47cf-a63b-dcef16429edc/>

Hamnett, C 1999, *Winners and losers: Home ownership in modern Britain*, UCL Press, London.

Hancock, R, Katbamna, S, Marin, G, Clarke, H & Stuchbury, R 2002, *Attitudes to inheritance: An exploratory study,* Joseph Rowntree Foundation, York.

Helbrecht, I & Geilenkeuser, T 2010, 'Home ownership in Germany: Retirement strategies of households in a tenant society, *Teorija in Praksa*, vol. 47, no. 5, pp.975–993.

Heylen, K & Haffner, MEA 2012, 'The effect of housing expenses and subsidies on income distribution in Flanders and the Netherlands', *Housing Studies*, vol. 27, no. 8, pp.1142–1161.

Hickey, J, Handley, K & Ling, J 2007, *SEQUAL/Trowbridge Deloitte reverse mortgage market study (December 2007)*, Trowbridge Deloitte, Sydney.

Hugo, G 2003, 'Australia's ageing population', *Australian Planner*, vol. 40, no. 2, pp.109–118.

Hurd, MD 1990, 'Research on the elderly: Economic status, retirement, and consumption and saving', *Journal of Economic Literature*, vol. 28, pp.565–637.

IBM Global Business Services 2010, *An actuarial analysis of FHA home equity conversion mortgage loans in the mutual mortgage insurance fund: Fiscal year*

2010, prepared for US Department of Housing and Urban Development, October 14.

International Monetary Fund (IMF) 2008, *World economic outlook: Housing and the business cycle*, International Monetary Fund, Washington DC.

—— 2011, *Global financial stability report: Durable financial stability: Getting there from here*, International Monetary Fund, Washington DC.

Jefferson, T & Preston, A 2005, 'Australia's other gender wage gap: Baby boomers and compulsory superannuation accounts', *Feminist Economics*, (Special edition on Women and Ageing), July, vol. 11, no. 2, pp.79–100.

Jones, A, Geilenkeuser, T, Helbrecht, I & Quilgars, D 2012, 'Demographic change and retirement planning: Comparing households' views on the role of housing equity in Germany and the UK', *International Journal of Housing Policy*, vol. 12, no. 1, pp.27–45.

Klyuev, V & Mills, P 2006, republished in 2007 and 2010, 'Is housing wealth an "ATM"? The relationship between household wealth, home equity withdrawal, and savings rates', IMF Working Paper WP/06/162, International Monetary Fund; republished in 2007, *IMF staff papers*, vol. 54, no. 3, pp.539–561; republished in 2010 in SJ Smith & BA Searle (eds.), *The Blackwell companion to the economics of housing: The housing wealth of nations*, Wiley-Blackwell, Chichester, West Sussex, pp.58–81.

Lang, G & Westerheide, P 2006, 'Sonderfrage: Reverse mortgae in Deutschland', *ZEW Finanzmarktreport*, Mai, p.3.

Leviton, R 2001, 'Reverse mortgage decision-making', *Journal of Aging and Social Policy*, vol. 134, pp.1–16.

Mason, M 2010, 'Sample size and saturation in PhD studies using qualitative interviews', *Forum: Qualitative Social Research*, vol. 11, no. 3, article 8.

Megbolugbe, IF, Sa-Aadu, J & Shilling, JD 1997, 'Oh, yes, the elderly will reduce housing equity under the right circumstances', *Journal of Housing Research*, vol. 8, no. 1, pp.53–74.

Mian, A & Sufi, A 2011, 'House prices, home equity-based borrowing, and the US household leverage crisis', *American Economic Review*, vol. 101, pp.2132–2156.

Miles, M B & Huberman, AM 1994, *Qualitative data anaysis: An expanded sourcebook,* second edn., Sage, Thousand Oaks CA.

Ministerie van BZK 2010, *Cijfers over wonen, Wijken en integratie 2010*, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, Den Haag.

Ministerie van Financiën 2012, *Belastingplan 2013*, Ministerie van Financiën, Den Haag.

Ministerie van Sociale Zaken en Werkgelegenheid 2008, *The old-age pension system in the Netherlands*, Publicatie-nr. SZW 74r610, Juni, Rijksoverheid, Den Haag.

Modigliani, F & Brumberg, R 1954, 'Utility analysis and the consumption function: an interpretation of cross-section data', in KK Kurihara, (ed.), *Post Keynesian Economics*, Rutgers University Press, New Brunswick.

Moloney, D & Bor, A 2003, *Improving accessibility and flexibility of mortgage lending for Australians*, A Report for the Prime Minister's Home ownership Task Force, Booz Allen Hamilton Inc., Sydney.

Monk, S & Whitehead, C (eds.) 2010, *Front matter, in making housing more affordable: The role of intermediate tenures*, Wiley-Blackwell, Oxford, UK. doi: 10.1002/9781444327854.fmatter

Naumanen, P & Ruaonavaara, H 2010, 'Old age and the role of housing equity. A case study on the Finnish homeowners' perceptions', *Teorija in Praksa*, vol. 47, no. 5, pp.1078–96.

Naumanen, P, Perista, P & Ruaonavaara, H 2012, 'Homes as old age security? Households' perceptions of housing and elderly care in Finland and Portugal', *International Journal of Housing Policy*, vol. 12, no. 1, pp.47–68.

NSW Treasury 2010, *Interstate comparison of taxes 2010–11*, no place of publication given, NSW Treasury.

Organisation for Economic Co-operation and Development (OECD) 2007, *OECD economic surveys: United States,* OECD, Paris.

—— 2011, *Pensions at a glance 2011: Retirement-income systems in OECD and G20 countries,* OECD Publishing, Paris.

Olsberg, D & Winters, M 2005, *Ageing in place: Intergenerational and intrafamilial housing transfers and shifts in later life*, Final Report No. 88, Australian Housing and Urban Research Institute, Melbourne.

Ong, R 2008, 'Unlocking housing equity through reverse mortgages: The case of elderly homeowners in Australia', *European Journal of Housing Policy*, vol. 8, no. 1, pp.61–79.

—— 2010, 'House price appreciation in old age: Analysis and issues for the use of reverse mortgages as a retirement funding strategy in Australia', *Journal of Population Ageing,* vol. 3(3–4), pp.139–60.

Ong, R, Parkinson, S, Searle, BS,. Smith, S.J & Wood, G 2013), 'Channels from housing wealth to consumption', *Housing Studies*, DOI:10.1080/02673037.2013.783202.

Oxley, M & Haffner, MEA 2010, *Housing taxation and the subsidies: International comparisons and the options for reform*, Joseph Rowntree Foundation Housing Taskforce, Joseph Rowntree Foundation, York. <http://www.jrf.org.uk/publications/housing-taxation-subsidies> (last accessed 19 December 2012).

Oxley, M, Lishman, Ros, Brown, Tim, Haffner, MEA & Hoekstra, Joris 2010, *Promoting investment in private rented housing supply: International policy comparison*, Department for Communities and Local Government, London. <http://www.communities.gov.uk/publications/housing/investprivaterentedhousing> (last accessed 19 December 2012).

Parkinson, S, Searle, BA, Smith, S, Stoakes, A & Wood, G 2009, 'Mortgage equity withdrawal in Australia and Britain: Toward a wealth-fare state?, *European Journal of Housing Policy*, vol. 9, no. 4, pp.365–89.

Poterba, J, Venti, S & Wise, D 2011, 'The composition and drawdown of wealth in retirement', *Journal of Economic Perspectives*, vol. 25, no. 4, pp.95–118.

Productivity Commission 2011, *Caring for older Australians*, Report No. 53, Final Inquiry Report, Canberra.

Reifner, U, Clerc-Renaud, S, Pérez-Carillo, EF, Tiffe, A & Knobloch, M 2007a, *Study on equity release schemes in the EU—Part I: General report*, Institut für Finanzdienstleistungen e.V., Hamburg.

—— 2007b, *Study on equity release schemes in the EU—Part II: Country reports*, Institut für Finanzdienstleistungen e.V., Hamburg.

Reinold, K 2011, 'Housing equity withdrawal since the financial crisis', *Research and Analysis*, Q2, pp.127–33.

Reserve Bank of Australia 2003, *Housing equity withdrawal*, Reserve Bank of Australia Bulletin, February, pp.50–54.

Rouwendal, J 2007, *Housing wealth and housing portfolios in an aging society*, Netspar Discussion Paper 2007-048, Amsterdam, VU.

Rowlingson, K 2005, *Attitudes to inheritance in Britain*, Joseph Rowntree Foundation, York.

Rozario, A 2012, 'The state of the equity release market', in Lord German (ed.), *Making the most of equity release: Perspectives from key players*, The Smith Institute, London, pp.12–16.

Schneider, M 2009a, 'Kalkulation von reverse mortgages: Rechnet sich das?', *Die Bank,* vol. 7, pp.30–34.

—— 2009b, 'Immobilienkapitalverzehr: Darlehen auf den Kopf gestellt', *Bankmagzin,* 2, September, pp.30–34.

Schwandt, T 2007, 'Sampling logic', in *SAGE Dictionary of qualitative inquiry*, third edn., Sage, Thousand Oaks CA, pp.270–72.

Schwartz, C, Hampton, T, Lewis, C & Norman, D 2006, republished in 2010, 'A survey of housing equity withdrawal and injection in Australia, RDP 2006-08, no place of publication given, Reserve Bank of Australia; republished 2010 in SJ Smith & BA Searle (eds.), *The Blackwell companion to the economics of housing: The housing wealth of nations*, Wiley-Blackwell, Chichester, West Sussex, pp.147–175.

Schwartz, H. & Seabrooke, L. 2008, 'Varieties of residential capitalism in the international political economy: Old welfare states and the new politics of housing', *Comparative European Polities*, vol. 6, pp.237–61.

Seelig, T., Thompson, A., Burke, T., Pinnegar, S., McNelis, S. & Morris, A. 2009, *Understanding What Motivates Households to Become and Remain Investors in the Private Rental Market*, Final Report No. 130, Australian Housing and Urban Research Institute, Melbourne.

Senior Australians Equity Release Association of Lenders (SEQUAL) (n.d.), *Code of conduct,* <http://www.sequal.com.au/attachments/SEQUAL_Conduct_Code.pdf> (last accessed 6 March 2013).

Sharp, R & Austen, S 2007, 'The 2006 Federal budget: A gender analysis of the superannuation taxation concessions', *Australian Journal of Labour Economics*, vol. 10, no. 2, pp.61–77.

Sheehan, G 2002, 'Financial aspects of the divorce transition in Australia: Recent empirical findings', *International Journal of Law, Policy and the Family*, vol. 16, pp.95–126.

Shiller, R.J. 2003, *The new financial order: Risk in the 21st century*, Princeton University Press, Princeton, New Jersey.

Skinner, J 1996, 'Is housing wealth a sideshow?', in D Wise (ed.) 1996, *Papers in the economics of aging,* University of Chicago Press, Chicago.

Smith, J 2004, 'Exploring attitudes to housing wealth and retirement', *Housing Finance*, vol. 63 (Autumn), pp.22–33.

—— 2005, 'Mortgage equity withdrawal and remortgaging activity', in P Boulhouwer, J Doling & M Elsinga (eds.) 2005, *Home ownership: Getting in, getting from, getting out,* Housing and Urban Policy Studies, vol. 29, Delft, DUP Science, pp.145–159.

Smith, S, Searle, BA & Cook, N 2009, 'Rethinking the risks of home ownership', *Journal of Social Policy*, vol. 38, no. 1, pp.83–102.

Smith, SJ 2012, *Care-full Markets: Miracle or mirage?,* in Tanner Lecture Library (Clare Hall Tanner Lectures 2010), <http://www.tannerlectures.utah.edu/lectures/atoz.htm> (last accessed 19 December 2012).

Smith, SJ & Searle, BA 2008, 'Dematerialising money? Observations on the flow of wealth from housing to other things, *Housing Studies*, vol. 23, no. 1, pp.21–43.

—— (eds.) 2010, *The Blackwell companion to the economics of housing: The housing wealth of nations*, Wiley-Blackwell, Chichester, West Sussex.

Smith, SJ, Ford, J & Munro, M 2002, *A review of flexible mortgage*, Council of Mortgage Lenders, London.

Statistisches Bundesamt 2011, *Im blickpunkt: Ältere menschen in Deutschland und der EU*, Statistisches Bundesamt, Wiesbaden.

Schwartz, H & Seabrooke, L 2008, 'Varieties of residential capitalism in the international political economy: Old welfare states and the new politics of housing', *Comparative European Politics*,vol. 6, pp.237–61.

Tatsiramos, K 2006, *Residential mobility and housing adjustment of older households in Europe*, Discussion Paper no.. 2435, IZA, <http://ftp.iza.org/dp2435.pdf> (last accessed 19 December 2012).

The Wriglesworth Consultancy 2011, *SHIP 20th anniversary report: December 1991 to December 2011*, no place of publication given, The Wriglesworth Consultancy.

Tiffe, A 2007, 'Revers mortgage—Marktchancen, kundenwünsche und gestaltung: wohneigentum in der altersvorsorge', *Immobilien and Finanzierung*, vol. 17, pp.586–90.

Toussaint, J & Elsinga, M 2012, 'Mortgage-equity release: The potential of housing wealth for future Dutch retirees', *Journal for Housing and the Built Environment,* DOI 10.1007/s10901-012-9301-x.

—— 2009, 'Exploring 'housing and asset-based welfare'—Can the UK be held up as an example for Europe?' *Housing Studies*, vol. 24, no. 5, pp.669–92.

Toussaint, J, Tegeder, G, Elsinga, M & Helbrecht, I 2007, 'Security and insecurity of home ownership: Germany and the Netherlands', *European Journal of Housing Policy*, vol. 7, no. 2, pp.173–92.

Trampusch, C, Eichenberger, P, de Roo, M, Bartlett Rissi, R, Bieri, I, Schmid, L &, Steinlin, S (eds.) 2010, *Pension in the Netherlands,* Research on Social

Benefits in Collective Agreements, Database, Part 2 'Social Benefits in Collective Agreements'. SNF-Project No. 100012-119898, Institute of Political Science, University of Berne, <http://www.bridge.uni-koeln.de/fileadmin/wiso_fak/wisosoz/pdf/REBECA/Netherlands_Pension_eng.pdf> (last accessed 19 December 2012).

Tsatsaronis, K & Zhu, H 2004, 'What drives housing price dynamics: Cross-country evidence', *BIS Quarterly Review*, March, pp.65–78.

Van den End, WA, Kakes, JI, van Rooij, MCJ & Stokman, ACJ 2002, *Vermogensbeheer Nederlandse gezinnen: Analyse op basis van een enquête*, Onderzoeksrapport WO nr. 687, Mei, De Nederlandsche Bank, Amsterdam, see also Kwartaalbericht Juni 2002.

Van der Heijden, H., Dol, K. & Oxley, M. 2011, 'Western European housing systems and the impact of the international financial crisis', *Journal of Housing and the Built Environment*, vol. 26, no. 3, pp.295-313.

Van Els, PJ.A, van den End, WA & van Rooij, MCJ 2003, *Financial behaviour of Dutch households: An analysis of the DNB household survey 2003*, Research Memorandum WO no. 744, October, De Nederlandsche Bank, Amsterdam, see also Kwartaalbericht September 2003.

VEH 2012, *Het pensioen staat als een huis. Is de overwaarde van het huis te verzilveren?,* 29 Maart, Vereniging Eigen Huis, Amsersfoort.

Venti, S & Wise, D 2000, *Aging and housing equity*, National Bureau of Economic Research, Working Paper Series, Cambridge.

—— 2004, 'Aging and housing equity: Another look', in D Wise (ed.) 2004, *Perspective on the economics of aging*, Chicago Press, Chicago, pp.127–80.

Vorms, B. 2009, *Home Ownership as Wealth over the Life Cycle: European Household Motivation for Residential Assets Current Situation and Future Prospects,* DEMHOW Research Report, http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/DEMHOW/A3.pdf

VVD-PvdA (2012), *Bruggen slaan. Regeerakkoord VVD – PvdA,* place of publication not given, 29 oktober, http://www.rijksoverheid.nl/regering/documenten-en-publicaties/rapporten/2012/10/29/regeerakkoord.html.

Wicke, E 2008, 'Umgekehrte Hypotheek—Ein zukunftsmodell für Deutschland?', *E-Journal of Practical Business Research,* Sonderausgabe Bank Nr. vol. 1, no. 12, pp.1–17.

Wood, G & Nygaard, CA 2010, 'Housing equity withdrawal and retirement: Evidence from the Household, Income and Labour Dynamics in Australia Survey (HILDA), in SJ Smith & BA Searle (eds.), *The Blackwell companion to the economics of housing: The housing wealth of nations*, Wiley-Blackwell, Chichester, West Sussex, pp.257–78.

Wood, G & Ong, R 2012, *Sustaining home ownership in the 21st century: Emerging policy concerns*, Final Report No. 187, Australian Housing and Urban Research Institute, Melbourne.

Wood, G, Colic-Peisker, V, Berry, M & Ong, R 2010a, *Asset-poverty and older Australians transitions onto housing assistance programs*, Final Report No. 156, Australian Housing and Urban Research Institute, Melbourne.

Wood, G, Stewart, M & Ong, R 2010b, *Housing taxation and transfers*, Final Report, Research Study for the Review of Australia's Future Tax System, <http://www.taxreview.treasury.gov.au/content/html/commissioned_work/downloads/Wood_Stewart_and_Ong.pdf> (last accessed 19 December 2012).

Yates, J 2012, 'Taxation', in SJ Smith, M Elsinga, LF O'Mahony, SE Ong, S Wachter & R Ronald (eds.), *International Encyclopedia of Housing and Home*, vol. 7, Elsevier, Oxford, pp.138–147.

Yates, J & Bradbury, B 2010, 'Home ownership as a (crumbling), fourth pillar of social insurance in Australia', *Journal of Housing and the Built Environment*, vol. 25, pp.193–211.

APPENDICES

Appendix 1: Measuring income unit assets and debts

In single-income unit households, household assets and debts are equivalent to income unit assets and debts respectively. In multi-income unit households, the algorithm for measuring assets and debts on an income unit basis is detailed in Table A1 below.

Table A1: Algorithm for the measurement of wealth and debt for income units residing in multi-income unit households

Asset/debt type	Unit of measurement in HILDA	Algorithm
Asset		
Primary home	Household	We have identified income units that own the primary home in a multi-income unit household using AHURI-3M. Hence, the wealth stored in the primary home is assigned to the income unit that owns the primary home
Other property	Household	We are able to identify legal owners of other property within the household. We assume legal owners have equal share of property value to get the income unit value. So, for example, suppose there are three adult members in the household, of which two are members of a couple income unit, and the third is a non-related household member. Suppose, that all three are reported as legal owners of other property owned by the household. The couple income unit would be assigned two-thirds of the household wealth stored in other property, while the third adult would be assigned one-third of the household wealth.
Business	Household	Each respondent is asked what their financial year business income is. Respondents who report business income (whether made profit, loss or broke even) are classified as business owners. The household business assets are then divided equally among business owners in the household. For a couple income unit, the sum of personal business wealth is added up to derive income unit business wealth.
Savings/ investments	Personal and household	Savings include own and joint bank account balances and these are reported on a personal basis. For a couple income unit, the sum of personal own bank account wealth is added up to derive income unit joint bank account wealth. Similarly, the sum of each partner's share of joint bank account wealth is added up to derive income unit joint bank account wealth. Investments include equity investments, cash investments, life insurance and trust funds and these are reported on a household basis. Household investment wealth is divided equally among adult members of the household then summed for members of each income unit to derive income unit wealth.
Superannuation	Personal	For a couple income unit, the sum of personal superannuation wealth is added up to derive income superannuation wealth.
Other assets	Household	Other assets include vehicles and collectibles. Other assets are divided equally among adult members of the household then summed for members of each income unit to derive income unit wealth.

Asset/debt type	Unit of measurement in HILDA	Algorithm
Debt		
Primary home	Household	Apply method of assigning primary home wealth (see above).
Other property	Household	Apply method of assigning other property wealth (see above).
Business	Household	Apply method of assigning business wealth (see above).
Credit card	Personal	Credit card debt is derived from personal and one's share of joint credit card debt. For a couple income unit, the sum of personal own credit card debt is added up to derive income unit own credit card debt. Similarly, the sum of each partner's share of joint credit card debt is added up to derive income unit joint credit card debt.
Other debt	Personal	Other debts include HECS, car loans, investment loans, personal loans, hire purchase and overdue bills. For a couple income unit, the sum of personal other debts is added up to derive the income unit's other debt.

Source: Wood et al. (2010a)

Appendix 2: Supplementary tables on the assets and debts of older Australians

Table A2: Asset and debts of older Australians, by age band, 2002 and 2006

(a) 2002

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	45–54 years	55–64 years	65+ years	45–54 years	55–64 years	65+ years
Asset						
Primary home	274.6	260.8	225.8	45.2	39.3	53.5
Other property	69.3	79.4	31.6	11.4	12.0	7.5
Superannuation	141.6	145.4	44.1	23.3	21.9	10.4
Business	33.6	28.1	6.7	5.5	4.2	1.6
Savings and investments	64.4	121.4	99.4	10.6	18.3	23.6
Other	24.0	29.2	14.5	3.9	4.4	3.4
Total	607.5	664.3	422.1	100.0	100.0	100.0
Debt						
Primary home	47.8	17.8	2.4	65.4	49.3	58.1
Other property	18	10.8	0.8	24.6	29.8	19.2
Business	5.6	6.4	0.7	7.6	17.8	16.5
Credit card	1.3	0.9	0.2	1.7	2.4	4.4
Other	0.4	0.2	0.1	0.6	0.7	1.7
Total	73	36.2	4.1	100.0	100.0	100.0
Population ('000s)	2,642.7	1,913.4	2,277.6			

(b) 2006

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	45–54 years	**55–64 years**	**65+ years**	**45–54 years**	**55–64 years**	**65+ years**
Asset						
Primary home	446.8	469.8	410.8	44.5	38.8	49.4
Other property	198.5	201.4	132.8	19.8	16.7	16.0
Superannuation	214	294.1	100.8	21.3	24.3	12.1
Business	25.6	29.3	5.9	2.6	2.4	0.7
Savings and investments	86.3	182.3	160.9	8.6	15.1	19.4
Other	32.9	32.5	20.3	3.3	2.7	2.4
Total	1,004.1	1,209.3	831.4	100.0	100.0	100.0
Debt						
Primary home	94.8	41.6	3.8	65.1	56.1	38.5
Other property	41.2	29.4	5.4	28.3	39.7	55.0
Business	6.6	1.6	0.4	4.5	2.2	4.1
Credit card	2	1.4	0.2	1.4	1.9	2.2
Other	1.1	0.2	0.0	0.7	0.2	0.1
Total	145.8	74.2	9.9	100.0	100.0	100.0
Population ('000s)	2,641.1	2,084.4	2,353.3			

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

Table A3: Asset and debts of older Australians, by income unit type, 2002 and 2006

(a) 2002

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	Single men	**Single women**	**Partnered persons**	**Single men**	**Single women**	**Partnered persons**
Asset						
Primary home	135.8	167.4	290.0	45.3	60.3	43.8
Other property	21.0	24.5	72.7	7.0	8.8	11.0
Superannuation	58.1	28.4	136.0	19.4	10.2	20.6
Business	0.0	0.0	31.5	0.0	0.0	4.8
Savings and investments	71.5	47.4	105.1	23.8	17.1	15.9
Other	13.5	9.7	26.4	4.5	3.5	4.0
Total	299.9	277.4	661.6	100.0	100.0	100.0
Debt						
Primary home	12.6	10.0	29.1	74.3	67.6	60.0
Other property	2.0	3.8	12.8	11.8	25.9	26.4
Business	1.6	0.2	5.4	9.7	1.5	11.2
Credit card	0.5	0.5	0.9	3.2	3.6	1.8
Other	0.2	0.2	0.3	1.1	1.4	0.6
Total	17.0	14.9	48.5	100.0	100.0	100.0
Population ('000s)	632.0	1,183.9	6,833.7			

(b) 2006

	Mean income unit asset and debt, 2002 price level, in $'000s			Composition of income unit asset and debt, per cent (calculated based on means)		
	Single men	**Single women**	**Partnered persons**	**Single men**	**Single women**	**Partnered persons**
Asset						
Primary home	233.9	269.0	507.9	47.7	57.1	42.4
Other property	61.5	77.1	215.5	12.5	16.4	18.0
Superannuation	86.1	51.7	248.7	17.5	11.0	20.8
Business	0.0	0.0	27.3	0.0	0.0	2.3
Savings and investments	92.0	61.8	163.4	18.8	13.1	13.7
Other	17.3	11.5	34.0	3.5	2.4	2.8
Total	490.9	471.1	1,196.7	100.0	100.0	100.0
Debt						
Primary home	27.7	19.2	58.5	58.6	67.8	61.2
Other property	17.5	7.3	31.2	37.1	25.9	32.7
Business	0.7	0.5	4.0	1.5	1.9	4.2
Credit card	0.9	0.8	1.4	1.9	2.8	1.4
Other	0.4	0.4	0.5	0.9	1.6	0.5
Total	47.2	28.3	95.5	100.0	100.0	100.0
Population ('000s)	659.3	1,208.5	7,078.8			

Source: Authors' own calculations from the 2002, 2006 and 2010 HILDA Survey

AHURI Research Centres

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

Australian Housing and Urban Research Institute
Level 1, 114 Flinders Street, Melbourne Victoria 3000
Phone +61 3 9660 2300 Fax +61 3 9663 5488
Email information@ahuri.edu.au Web www.ahuri.edu.au