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Appendices:

How might the UK pensions landscape evolve to support more flexible retirements?

How might the UK pensions landscape evolve to support more flexible retirements?, is the latest report in the PPI Transitions to Retirement series. This report is sponsored by The Investment Association and The People's Pension.

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The full report can be found on the PPI website
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Introduction

How might the UK pensions landscape evolve to support more flexible retirements?, is part of the PPI's Transitions to Retirement series exploring how people access pension savings. These are the appendices to the report which can be downloaded from the PPI website www.pensionspolicyinstitute.org.uk.

The report builds on the findings of previous reports and, using evidence from four countries, Australia, Ireland, New Zealand and the United States (US), considers how the UK pension and retirement income system might evolve in the context of changes in the retirement landscape. In particular, this report considers the impact of the new flexibilities introduced from April 2015.

Appendix A explains the context for new pension flexibilities in the UK.

Appendix B explains in detail the pension systems in Australia, Ireland, New Zealand and the United States.

Appendix C provides an overview of the cost of social care in the UK.

Appendix A: Context for new pension flexibilities

Prior to the proposals made by the Chancellor of the Exchequer in the Budget 2014, there were restrictions to the amounts that individuals could withdraw from their pension pots, with most individuals using them to purchase an annuity. Only those individuals with a secure pension income of £20,000 a year from the State Pension, Defined Benefit (DB) pension or other annuity income were allowed to use 'Flexible Drawdown' under which there was no cap on withdrawals. 'Capped Drawdown' was available to other individuals, however the maximum amount that individuals could withdraw each year from a Capped Drawdown arrangement was limited to 120% of an equivalent annuity.

In the 2014 Budget the Chancellor of the Exchequer announced that all restrictions on how individuals aged 55 and over would be able to access their pensions will be lifted from April 2015 onwards. As a result, the following were introduced in April 2015:

- Individuals are able to withdraw the whole of their pension pot from age 55. The 25% tax-free lump sum will remain in place while any withdrawals over this amount are taxed at the individual's marginal rate.
- In order to help people to make decisions around their retirement income, the Government has introduced Pension Wise. Under this service, Defined Contribution (DC) savers are guaranteed a session of free, impartial guidance that provides structured help with decision-making. The guidance also sets out the next steps for the saver with one of the options being regulated advice.
- The Government also consulted on whether to increase the age at which an individual can access their pension savings under the tax rules from 55 to 57 in line with the State Pension Age (SPA) increases (to age 67 by 2028). In its response to the consultation, the Government confirmed that it would increase the minimum pension age from 55 to 57 in 2028, and that it would remain 10 years below SPA thereafter.

The following important developments are likely to interact with the new flexibilities to influence the products and strategies required:
- Increased longevity
- An increase in the numbers of individuals with DC pension savings relative to those with DB pensions
- Changes to retirement patterns
- A move away from means-tested state benefits in retirement

These factors interact to influence the pensions landscape and are explored below. To some extent the new flexibilities have been portrayed as a way of increasing individuals' choice over the DC savings that they have amassed as a result of automatic enrolment.[1] Similarly, where an individual has a DC pension pot it is possible to alter the rate at which this is drawn down in line with changes in circumstances, something that is not available to DB scheme members. In this

[1] HMT (2014)

way, the increase in the number of DC pension savers represents an increase in the number of individuals who are in a position to exercise the new flexibilities. At the same time, these developments will affect the way in which the new flexibilities will play out while some, such as increased longevity, represent challenges that any solutions will be required to address.

Increased longevity

This has reacted with the other factors below, resulting in pension funds having to be able to provide individuals with resources over a longer period than in the past. Previously, annuities have provided a way of managing any risk around longevity, however this is one of the challenges to the effective management of resources under the new flexibilities, where lifetime annuities are unlikely to be a default option.

Increases in longevity have also led to increases in the SPA, which will increase to 67 in the mid-2020s. In future, the SPA will increase in line with increases to longevity.

An increase in the number of individuals with DC pension savings relative to those with DB pensions

Active members of DB workplace pensions have been decreasing from 8.1 million in 2006 to 6.8 million in 2012.[2] At the same time, the number of individuals with DC pension savings has been increasing and will be boosted by the number of people saving into workplace DC pensions due to the implementation of automatic enrolment. PPI research found that by 2030 between 6.5 and 8.5 million people could be newly saving in a private sector workplace pension scheme. Similarly, by 2030 the value of assets in private sector workplace DC pension schemes could range between £450 billion and £505 billion (2014 earnings terms), depending on factors such as opt-out rates and employers' behaviour.[3]

There is also a prevalence of small pension pots, a trend that may continue under the implementation of automatic enrolment unless proposals to aggregate small pension pots are implemented. In 2012, the Institute for Fiscal Studies (IFS) estimated that there were 0.7 million employer-provided DC funds and 0.5 million individually arranged pension funds which, at the time, contained less than £5,000 and were no longer being contributed to. It estimated that these were collectively worth £1.4 billion.[4]

Until recently, annuitisation has acted as a default, with three quarters of those individuals with DC savings using them to purchase an annuity. Annuities are a product that caters for longevity. Of those annuities available, many individuals have not been getting the best deal, the FCA found that, in 2013, 81% of annuity customers were not getting the best deal.[5] This has led to criticism of annuities and the Government has highlighted this as part of the rationales behind the new pension flexibilities.

[2] ONS (2012)
[3] PPI (2014)
[4] IFS (2012)
[5] FCA (2014)

Without annuitisation as a default, the new pensions flexibilities mean that individuals may access their resources in a way that does not cater for longevity risk. Some individuals will risk withdrawing their resources too quickly and running out of money. This will have implications for the evolution of the pensions system under the new flexibilities.

Increases in DC savings, increases in longevity and a fall in annuity rates has led to a focus on the effective management of DC savings so that they provide benefits to individuals in a way that best meets their needs throughout their retirement. The growth in DC savings means that, unlike those individuals with DB pensions only or with property, individuals hold their retirement resources in a form which lends itself to being accessed in a flexible way. For instance, individuals may choose to draw down relatively small amounts of their pension pot as they work part-time while approaching full retirement.

Changes to retirement patterns

Greater variation in retirement patterns, along with later retirement, suggest that individuals require more flexibility in the management of their DC savings.

While retirement is often considered as a single event taking place around SPA, research highlights that for many the reality is far more blurred. People under SPA may view themselves as already retired. Leaving full-time work and starting to draw down private pension income may take place at different stages of later life, and either before or after reaching SPA.

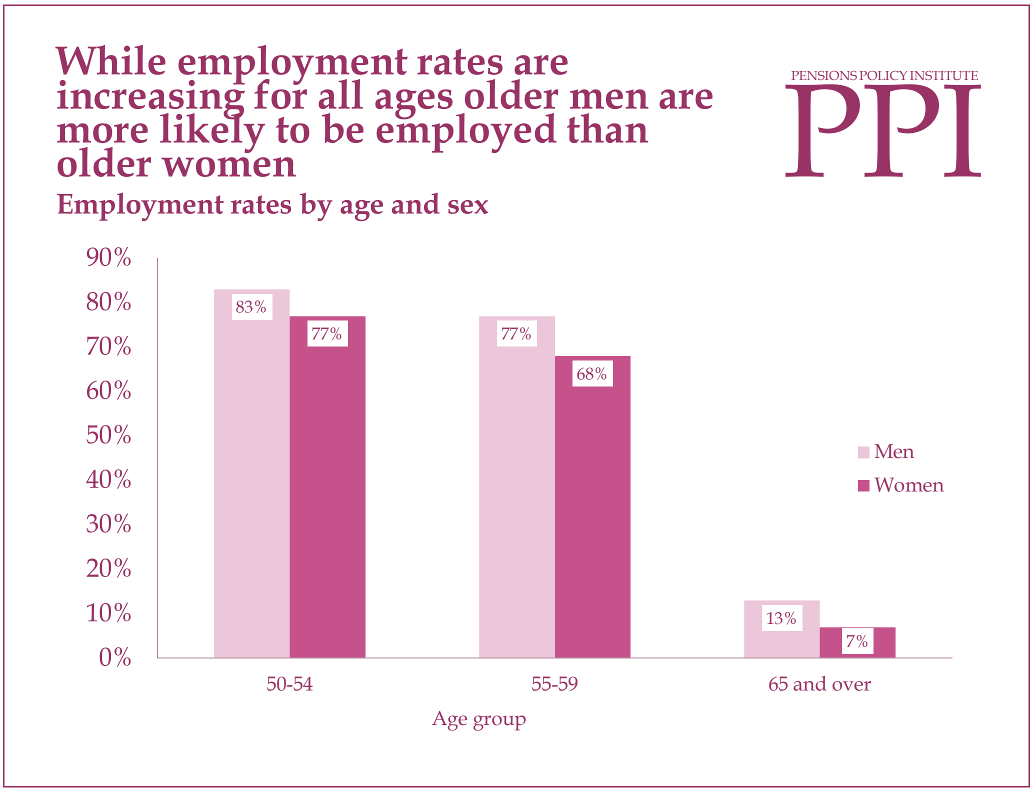
Data from the English Longitudinal Study of Ageing (ELSA) highlights that, for most people, starting to receive private pension income and leaving paid employment do not happen simultaneously. For instance, while around two thirds of people were in work immediately prior to starting to draw their private pension income, only 45% of this group left work when they first started to draw their pension with the remainder staying in work.[6]

In addition, there are positive trends in the numbers of people staying in work at older ages. Between 2004 and 2010, the average age at which people left the labour market increased from 63.8 years to 64.6 years for men and from 61.2 years to 62.3 years for women.[7]

The employment rate for 50-64 year-olds has increased from 62% in 2001 to 67% in 2013. The employment rate for people aged 65 and over increased from 5% in 2001 to almost 10% in 2013.[8] This is likely to be an on-going trend. However, at all ages, men are more likely to be in employment than women. Chart A1 compares employment rates for men and women.

[6] IFS (2008)
[7] ONS (2012)
[8] DWP (2013)

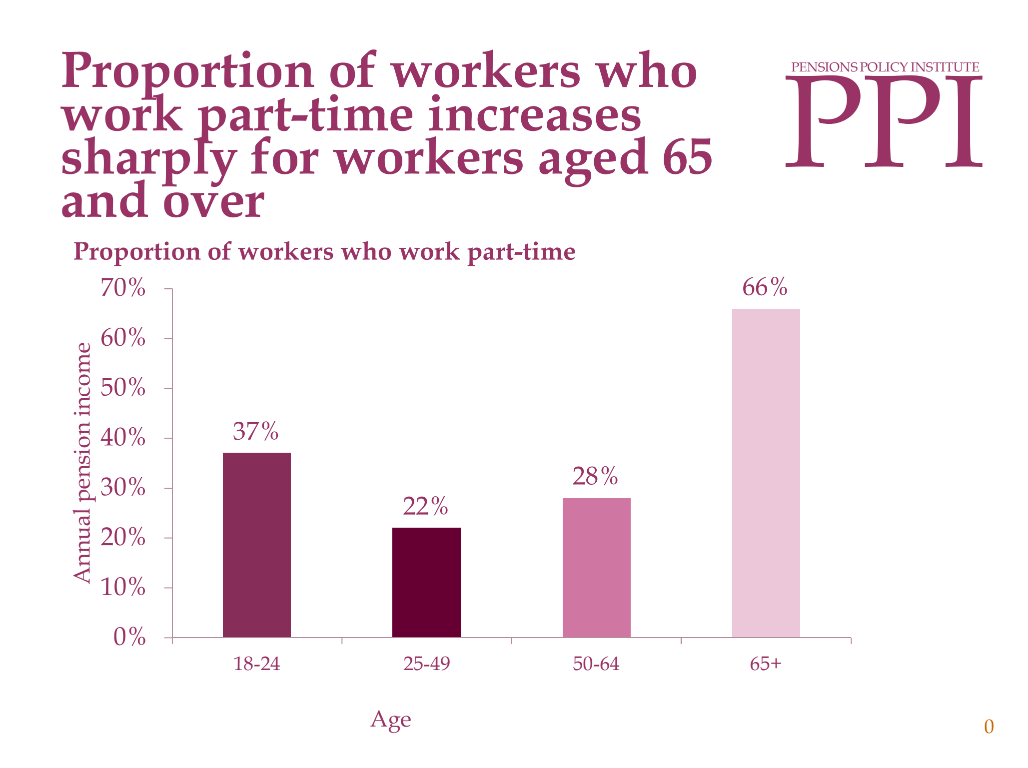
Chart A1[9]



A relatively high proportion of older people are working part-time. Approximately 23% of male workers and 43% of female workers aged 60-64 are working part-time. This increases to 53% of male workers and 60% of female workers aged 65-69. Overall, two thirds of those individuals aged 65 and over in employment are working part-time.[10]

[9] DWP (2013)
[10] DWP (2013)

Chart A2[11]



In this way, many older workers appear to have opted for (or circumstances may have meant they have to opt for) part-time work and a gradual approach to leaving the labour market.[12]

Private DC pension pots may be used to interact with other retirement resources in different ways. For instance, those individuals retiring in advance of the SPA or the age at which they qualify for their DB pension benefits may choose to use their DC savings to bridge the gap until they receive other income.

A move away from means-tested state benefits in retirement

Any changes to the arrangements for private pensions can have implications for means-tested benefits. The main risk identified has been 'moral hazard', a process whereby individuals exhaust their private pension savings on the basis that they will subsequently be able to access means-tested benefits.[13]

The main means-tested benefits for pensioners are Pensions Credit (Guarantee Credit and Savings Credit), Housing Benefit and Council Tax Reduction. Guarantee Credit is designed to ensure that pensioners have a minimum level of income while Savings Credit aims to ensure that those who have made some private provision for retirement, or who have made provision in excess of the Basic State Pension (£115.95 in 2015-16) are rewarded for this. Housing Benefit

[11] Reproduced from DWP (2013) Older Workers Statistical Information booklet
[12] ONS (2012)
[13] http://www.ifs.org.uk/budgets/budget2014/pensions_saving.pdf

and Council Tax Reduction help individuals on low incomes with the cost of their rent and council tax respectively.

The introduction of the New State Pension has been highlighted by the Government as a way in which the issue of moral hazard should be sidestepped[14] and, to some degree, can be perceived as an enabling factor for the removal of limits to the amounts of private pension income that individuals can draw down. The New State Pension will be set just above the level of Guarantee Credit and is intended to lift individuals' State Pension income over the threshold for Guarantee Credit, in this way, where an individual who is eligible for the full New State Pension spends their private pension income, they will not receive Guarantee Credit. Overall, fewer people are expected to be eligible for Guarantee Credit than under the current system and eligibility for Savings Credit will be removed for those reaching SPA following the introduction of the New State Pension.[15]

The level of entitlement to Housing Benefit and Council Tax Reduction amongst those people who will reach SPA after the introduction of the New State Pension is not expected to change significantly. Therefore, individuals may exhaust their pension savings, as a result of the new flexibilities, and become eligible for Housing Benefit and/or Council Tax Reduction (or higher amounts of these means-tested benefits).[16]

All of the above factors will have an impact on the evolution of the UK pensions landscape under the new flexibilities.

[14] http://www.ifs.org.uk/budgets/budget2014/pensions_saving.pdf
[15] DWP (2013)
[16] DWP (2013)

Appendix B: Country Information

Australia

Coverage of state pension
The means-tested state pension, known as the Age Pension (AP) replaces roughly 29% of men's average pre-tax earnings for a single retiree and 41% for a couple . A pension supplement brings these rates up to 30% and 44% respectively.[17]

Approximately half of retirees receive the full means-tested AP, a quarter receive a partial AP, and the remaining quarter get no AP.[18]

Eligibility for the AP brings with it eligibility for other benefits including a pension supplement, a pensioner concession card, health care and rent assistance.[19]

Overview of the system
As well as the AP there is a system of mandatory employer contributions into "MySuper" Defined Contribution (DC) pension schemes (with minimum employer contributions of just over 9.5% gradually increasing to 12% in the future).

Objectives
The objective of the AP is to provide an acceptable standard of living in retirement regardless of an individual's time in the workforce.[20]

The objective of the private pension regime, My Super, is to provide an adequate level of retirement income, relieve pressure on the AP and to increase national savings.[21]

Principles informing the development of the pensions system include:

- adequacy
- sustainability - in terms of government spending over the longer term
- certainty - requiring that individuals are sufficiently confident to put their savings in superannuation
- fairness – while the definition of fairness is debated, a quoted example is the balance for those who have not participated in the workforce with those who have

[17] Agnew (2013)
[18] Agnew (2013)
[19] Bateman, H. Piggot, J. (2010)
[20] http://taxreview.treasury.gov.au/content/ConsultationPaper.aspx?doc=html/publications/Papers/Retirement_Income_Consultation_Paper/Chapter_1.htm.
[21] http://www.treasury.gov.au/Policy-Topics/SuperannuationAndRetirement/supercharter/Report/Chapter-4

Size of pension fund market

At the end of Australia's financial year at June 2014, total pension assets were estimated at AS$1.87 trillion (£0.97 trillion).[22]

Average size of DC pension pot

Among Australians with private pension saving, median pot size among those aged 65 and over was around AS$150,000 (£77,838) in 2012.[23]

Tax treatment of pensions

The tax treatment of contributions differs by contribution type, of which there are two, concessional and non-concessional contributions. Concessional contributions are made directly by employers on behalf of the member from pre-taxed wages and are taxed at 15% when invested in the fund. The contributions are capped at AS$30,000 per year. Non-concessional contributions are made from post-tax income and are made directly by the individual. These contributions are not taxed to avoid double taxation and are capped at AS$180,000 p.a.

During the accumulation phase, returns from assets are taxed at a concessional rate of 15%. Once the member reaches preservation age (currently 55 but increasing to 60) and elects to move to the pension phase, further returns from assets are tax-free.

Type of costs to be covered by retirement income

- Housing costs - more than 80% of retirees in Australia are home owners, with most retired homeowners having no mortgage.[24] This suggests that many of these older individuals will not have to use their retirement income to pay regular housing costs, such as rent or mortgages.

- Health costs - while the health costs of individuals in Australia are covered by Medicare, this amounts to healthcare being heavily subsidised by the government. For instance, Medicare rebates 85% of the cost of the schedule fee[25] for most specialists, with the patient responsible for meeting the 15% of the cost not covered by the rebate (this rebate is known as a 'gap fee'). Individuals can purchase insurance that pays for private health care.[26]

  Medicare also provides a safety net which protects people who need to see the doctor regularly from having to pay a large number of 'gap fees'. For instance, if 'gap fees' for out of hospital service reach a certain amount (currently around AS$430) within a calendar year, individuals receive a 100% rebate for their out of hospital services that they use in the remainder of the calendar year.[27]

[22] APRA (2014)
[23] ASFA, exchange rate for this and other £ amounts from xe.com on 21 April 2015
[24] Bateman, H. Piggot, J. (2010)
[25] The schedule fee for each type of intervention is set by Medicare and, where medical practitioners charge higher fees than the schedule free, the patient is liable for the difference
[26] http://www.mydr.com.au/first-aid-self-care/australian-health-system-how-it-works
[27] http://www.mydr.com.au/first-aid-self-care/australian-health-system-how-it-works

In addition, older people who receive the AP can receive a Pensioner Concession Card, entitling them to reduced-cost medicines.

Many Australians can expect to incur costs related to their health in retirement, whether these arise from the payment of 'gap fees' or the purchase of insurance. Around half of the Australian population had private healthcare insurance in March 2013.[28] While the purchase of insurance might vary according to age, this provides an indication that individuals more frequently purchase insurance in Australia than in the UK.

In terms of cost, in 2011-12, for an individual to purchase a single policy to cover both hospital and general health insurance needs, it would cost an average of AS$2,072 (and AS$4,144 for a family).[29]

- Social care costs - if individuals do require long term care they are likely to be partly or fully liable for the costs. Individuals are able to receive federal subsidy for residential care if they meet a means-test. However, they remain responsible for some of the costs of residential care.

  Some government funding for care at home is available to those whose needs are assessed as having sufficient priority. There are also subsidised programmes such as Extended Aged Care at Home where government sets the maximum payment that service providers can ask the user to pay. Government subsidies tend to be high, for instance, the average subsidy for Extended Aged Care at Home was AU$ 39,000 in 2010.[30]

  The government also provides accommodation supplements for residential care that are designed to assist recipients who do not have sufficient means.[31]

Access to retirement savings

Australians can access their pension savings after the preservation age, which is currently 55 but is increasing to age 60 by 2024. From 2007 it has been possible for individuals who meet the age criteria to withdraw their MySuper tax-free in cash.[32] Early withdrawal is allowed in circumstances, such as the onset of poor health, disability and financial hardship.[33]

Around half of members withdraw their MySuper as a lump sum.[34] However, only around one-third of DC assets are paid out as lump sums, reflecting the fact that individuals with smaller pension pots are more likely to withdraw these as lump sums. The other two-thirds are used to provide an income stream, mainly

[28] http://phiac.gov.au/wp-content/uploads/2013/05/Qtr-Stats-Mar13.pdf
[29] Deloitte Access Economics (2012)
[30] OECD (2011)
[31] OECD (2011)
[32] The Strategic Society Centre (2014)
[33] http://www.superguide.com.au/accessing-superannuation/accessing-super-early/legal-reasons-to-cash-your-super
[34] ASFA (2014)

through 'pension accounts', similar to flexible drawdown. These do not offer lifetime guarantees and minimum withdrawals of 5% of the account, are tax-free, and typically start at around age 65.[35]

Retirement age

While there is no official retirement age in Australia, the access age for the AP for men and women is 65. This is increasing to age 67 by 2023 in order to adapt to increasing longevity. The effective retirement age is 64.9 for men and 62.9 for women.[36]

Concerns/observations

Many of the issues highlighted around Australia's pension system are common to other pension systems throughout the world and are due, to some degree, to an ageing population. An examination of the last 5 years of the Australian pension system finds issues that could affect sustainability. Benefit payments out of the system have increased substantially while contributions have reduced. At the same time, growth of post-retirement assets has been less than predicted.[37]

- Management of longevity risk through private pensions - concerns have been expressed that individuals can spend their working life in their default workplace pension and then at retirement are required to make complex decisions about sustainability of their savings, the impact of inflation, investment risk, and budgeting without a regular wage.[38] The typical DC plan is framed in terms of overall fund value rather than the provision of a particular level of income. This means that, at present, there is no target from which there can be a shortfall in Australian DC pensions.[39]

  In practice there has been a low demand for annuities. A gap in understanding around longevity, income needs in retirement and how savings can be used to meet these, along with a lack of available information for pension savers is likely to contribute to this lack of demand.

[35] Warshawsky, M. (2013)
[36] OECD (2012)
[37] Deloitte Access Economics (2013)
[38] Cooper, J. (2014)
[39] Cooper, J. (2014)

- Risk of exhausting private pension savings and falling back on the AP - there is an overarching concern, common to many pension systems that do not cater for longevity risk or pool risk, that individuals will fall into one or more of the following groups:[40]
  - Those who draw on their MySuper to pay off debts or to maximise their state benefits;
  - Those who die before their pension funds are exhausted and, on their death, the remaining balance is removed from the pension system;
  - Those who live for longer than their MySuper can support them and therefore rely on state benefits.

  The concerns around this have focused on the fact that individuals can access the AP which also gives them access to other benefits such as healthcare and rent assistance once they have spent their savings. Any concerns have tended to be theoretical and centred around the following:
  - Some individuals can access their superannuation pension ten years before the AP; and that they might use these as a bridge to AP benefits. However, the age gap between when individuals can access their superannuation and the Age Pension is decreasing;[41]
  - People may increase their pre-retirement indebtedness on the basis that they could repay this debt in retirement, this could undermine the superannuation system;[42]
  - High levels of flexibility in the decumulation of DC pension pots have introduced macroeconomic and individual-level inefficiencies, such as individuals using their tax-advantaged pension savings to repay debts. Research estimates that these inefficiencies have meant that an estimated additional 15% of assets are required to fund adequate retirement benefits.[43]

While it has been found that individuals are using their retirement funds to pay off debts and risk running down their private retirement savings and consequently falling back on the AP, there is no conclusive evidence to date that individuals are gaming the system in this way. For instance, the Super System Review in 2010 concluded that, at this time, there was no systematic problem of individuals drawing down their income from their superannuation fund too quickly, with a view to falling below the threshold for the AP.

As pension savings have increased in Australia, so has the number of individuals reaching retirement with mortgages. In 1994-95, approximately 80% of households where the reference person for the household was aged 55-64 owned their own home, and 10% of these had a mortgage. By 2009-10, the number of home-owning households among this group had increased to 82%, but the number of households in this category with mortgages increased to 30%. Further evidence suggests that roughly one-

[40] Deloitte (2013)
[41] Agnew, J (2013)
[42] Australian Government (2010)
[43] The Strategic Society Centre (2014)

quarter of households in 2009-10 were paying off their mortgages when they retired.[44]

While this does not amount to proof that individuals are acquiring mortgages with the expectation that they will use their pension savings to repay them, it demonstrates how pension savings form part of individuals' overall financial perspective, and how an holistic approach to manage finances may be required.

It has been reported that, in Australia, 25% of people aged 55 deplete their balances by the age of 70.[45] In the past, those individuals who withdrew their private pension savings between the ages of 55 and 64 had lower levels of private pension savings, were more likely to be single and to have experienced the onset of disability. This suggests that this group may exhaust their pension savings partly because their costs are higher than average, due to their disability, and lower savings.[46]

A related issue arises around the types of income products that are on offer to individuals. While most plans have offered some types of income product to members these do not always last for the lifetime of the member's household.[47] Moreover, unlike in America, target date funds have not been popular in Australia.[48] However, the use of target date funds, or lifecycle funds, has increased in popularity since the introduction of MySuper and the new regulatory arrangement and default mechanism. The number of lifecycle funds has doubled since the introduction of MySuper.[49] In the past there have been reports that guaranteed lifetime annuities are not good value for money and that retirement providers have been unwilling to develop new products because of prescriptive rules around the definition of an income stream, for tax purposes.[50] However, the tax rules around superannuation withdrawals have been simplified since these reports.[51]

- Level of fees - concerns have been expressed around the level of fees in the superannuation sectors, which is also considered fragmented, and that they appear high by international standards.[52]

- Other factors - other reported issues include the large number of different regulators that pension providers have to liaise with, and the fact that many individuals do not understand risk and simply accept their default investment option. However, from 2014 employers are required to direct workplace DC savings into a diversified MySuper product.[53]

44 Estimates provided by Challenger
45 Murray, D (2014)
46 Social Policy Institute (2013)
47 Towers Watson (2012)
48 Agnew, J (2013)
49 http://www.superreview.com.au/news/superannuation/lifecycle-options-double-after-mysuper-reforms
50 Australian Government (2010)
51 http://www.superguide.com.au/how-super-works/tax-free-super-for-over-60s
52 http://fsi.gov.au/publications/interim-report/04-superannuation/efficiency/
53 Agnew, J (2013)

Ireland

Coverage of state pension
There are two aspects to the state pension; a contributory and a means-tested pension. For a single person these are equivalent to approximately 33% and 32% of economy-wide average earnings respectively.[54]

Overview of the system
The system has a state pension. Individuals can also contribute to a private pension on a voluntary basis. The maximum rate of the means-tested pension for single individuals aged 66 to 80 is currently €219 (£157) per week while the maximum contributory pension for single individuals (without adult dependants) aged 66 to 80 is currently €230.30 (£165) per week.[55] All recipients of pension benefits are entitled to a Household Benefits package which includes an allowance for electricity or gas and a free TV licence.

Objectives[56]
Overarching objectives are as follows:
- The provision of an adequate basic standard of living through direct state support.
- Encouragement of individuals to make supplementary provision so that they have sufficient income in retirement.

Based on the appraisal of the Irish pension system in 2007, it was concluded that sustainability and modernisation should also be principles that inform the development of the pension system.

Size of pension fund market
In 2007, approximately €87bn (£63bn) was invested in pension funds. There was a population of around 4 million, at that time, of which 11%, around 400,000, was aged over 65.

Tax treatment of pensions
Both employers and scheme members receive tax relief on their contributions when they pay them in. In addition, the pension fund does not pay tax on the investment income such as dividends and capital gains, while withdrawals are subject to PAYE and to the Universal Social Charge (an additional tax of which the maximum rate typically paid by pensioners is 3.5%). As in the UK, individuals are able to withdraw a proportion of their pension funds as a tax-free lump sum.

A minimum notional withdrawal was introduced in 2006 (where individuals are deemed to have withdrawn this percentage from their pension fund even if they have not done so). This amount is taxable regardless of whether an individual

[54] OECD (2014)
[55] http://www.citizensinformation.ie/en/social_welfare/social_welfare_payments/older_and_retired_people/state_pension_non_contributory.html
[56] Government of Ireland (2007)

makes the withdrawal. This percentage is currently 4% for pension pots up to the value of €2 million and 6% for pension pots over the value of €2 million.

Types of costs to be covered by retirement income

- Housing costs - around 87% of people aged over 65 in Ireland own their home outright while 2% own their home with a mortgage.[57] Many of these older individuals will not have to use their retirement income to pay regular housing costs, such as rent or mortgages.

- Health costs - Ireland has both a public and private healthcare system. Where individuals have a means-tested 'medical card' they receive health services free of charge. For instance, a single individual aged 66 to 69 can have income of up to €201.50 per week (this figure is net of certain expenses such as insurance and costs of travelling to work) and receive a medical card. Where individuals without a medical card use public health facilities these costs are capped. For instance, the statutory charge for overnight and day in-patient services is €75 per day up to a maximum of €750 over a 12 month period.[58] In 2012, 43% of the population had private health insurance, this figure has been decreasing since 2008.[59]

- Social care costs - individuals are required to make a contribution towards the cost of any residential care under the Nursing Homes Support Scheme.

Access to retirement savings

Individuals who meet the Minimum Income Requirement (MIR) of €12,700 per year are able to purchase an Approved Retirement Fund (ARF), which is similar to income drawdown in the UK, or can withdraw their entire pot as a lump sum. The MIR has been as high as €18,000 but this was reduced to €12,700, in the Finance Act 2013 for a three year period to March 2016, due to concerns around reductions in the value of pension pots related to falls in the value of equities. Individuals who do not meet the MIR are able to purchase an Approved Minimum Retirement Fund (AMRF), which is similar to an ARF except that individuals are not able to withdraw their original capital investment. They may convert their AMRF to an annuity at any time, and at age 75 their AMRF automatically becomes an ARF.

Retirement age

While the official retirement age for both men and women is 66, the effective retirement age is 64.6 for men and 62.6 for women.[60]

Concerns/observations

Concerns applicable to many countries also apply to the Ireland. A review of the Irish annuities market conducted in 2007 found that people purchasing an ARF and withdrawing from it the same amount as they would receive as an annuity from an equivalent pension fund had a 50-60% chance of exhausting

[57] Centre for Ageing Research and Development in Ireland (2014)
[58] http://www.citizensinformation.ie/en/health/hospital_services/hospital_charges.html
[59] http://www.irishexaminer.com/ireland/health/number-of-people-with-private-health-insurance-falls-to-2006-levels-195048.html
[60] OECD (2012)

their fund before they died.[61] There continue to be concerns that individuals will exhaust their funds prematurely; however, as ARFs were introduced relatively recently (in 1999), this effect has not yet been observed.

There is a concern that the main source of income for older people comes from public transfers. However, the Organisation for Economic Co-operation and Development (OECD) estimates that spending on pensions in Ireland will be low in terms of international comparisons.[62] The number of people in poverty in Ireland is low, relative to other OECD countries, 10% of individuals aged over 65 year-olds have less than half median equivalised incomes. However, where individuals are in poverty, the depth of poverty is high relative to other OECD countries.

The Irish annuities market is portrayed as lacking innovation with strict regulation being identified as one of the causes of this.[63] In the past, at least, annuities have had to meet the following conditions:

- An annuity must be payable for the annuitant's lifetime.
- An annuity payable to a surviving dependant cannot be higher than that payable to the annuitant.
- The guarantee period may not exceed 10 years.
- Other than payments arising from the operation of the guarantee period, no lump sum benefit may be paid on the death of the annuitant.

[61] Indecon (2007)
[62] OECD (2014)
[63] Indecon (2007)

New Zealand

Coverage of the state pension
A single person receives around 40% and a person living in a couple receives 33% of average worker earnings from the public pension, New Zealand Superannuation. Around 40% of individuals rely solely on the public pension in retirement.

Overview of the system
Non means-tested residency based flat rate New Zealand Superannuation with the level varying according to an individual's circumstances.

KiwiSaver is a voluntary private pension scheme with an automatic enrolment feature, all new employees are automatically enrolled. Employers make mandatory contributions of 3% of gross pay while employees can make taxed contributions at the rate of 3%, 4% or 8%. Individuals can opt out from 2-8 weeks after being enrolled, with the total cumulative opt out rate being just over 10%. Individuals are also able to take payment holidays of up to 5 years, with around 5% currently taking a holiday.

Objectives[64]
The following eight objectives have been identified for retirement income policy in New Zealand. It is accepted that, in some cases, they may overlap or compete with each other:

- **Income support -** alleviate old age poverty and hardship.
- **Wellbeing in retirement -** promote positive and active ageing.
- **Encouraging personal responsibility**, **individual choice and control -** voluntary saving for retirement.
- **Longevity risk pooling -** share protection against the risk of outliving savings.
- **The citizen dividend** - build and maintain social cohesion and national identity.
- **Lifetime consumption smoothing -** maintain accustomed living standards.
- **Intergenerational equity -** ensure equity of fairness between generations.
- **Fiscal restraint and investment - p**romote economic growth and efficiency.

Tax treatment of pensions
Contributions to private pensions are made from after-tax income and investment returns are taxed at source while withdrawals are exempt from tax. However, there is preferential tax treatment on investment returns for some products, known as Portfolio Investment Entities, which can be used to accumulate retirement savings.

Size of pension fund market
In 2014, approximately NZ49.8$bn (£25.7 billion) was invested in pension funds at the time when the population was around 4.5 million, of which 14.3%, around

[64] http://www.cflri.org.nz/retirement-income/policy-positions

600,000, were aged over 65.[65] The amount invested in pensions was equivalent to 21% Gross Domestic Product (GDP).

Tax treatment of pensions
Contributions to private pensions and investment returns are both subject to tax while withdrawals are exempt from tax. However there is preferential tax treatment for some products that can be used for retirement savings, such as Portfolio Investment Entities.

Types of costs to be covered by retirement income

- Housing costs - around 74% of people aged over 65 in New Zealand are owner-occupiers, with the proportion decreasing.[66] However, this suggests that, currently, many of these older individuals will not have to use their retirement income to pay regular housing costs, such as rent or mortgages.

- Health costs - New Zealand has both a public and private healthcare system. The public system focuses on essential healthcare services that are provided free.[67] In practice this means that most health care delivered through public hospitals is free while other services are heavily subsidised.[68] Specialist care is also free provided that the individual is referred by their GP. However, patients are charged for GP appointments.

  There are particular concessions for low-income people or those who need lots of support from the health system. For instance, the High Use Health Card means that people may get discounted rates for some GP visits and some prescriptions.[69]

  Older people may be liable for some health costs in retirement. Individuals may also incur higher costs where they choose to purchase private healthcare insurance. Around 30% of the New Zealand population had private healthcare insurance in May 2013.[70] While the purchase of insurance might vary according to age, this suggests that individuals more frequently purchase insurance in New Zealand than in the UK.

- Social care costs - if individuals require long term care they are likely to be partly or fully liable for the costs of this. Individuals are able to receive the Residential Care subsidy if they meet a means-test; however, they are likely to remain responsible for some of the costs of residential care.

  Home care (helping someone get out of bed, showering etc) is provided free of charge provided that the individual is found eligible for care by a needs

[65] OECD (2008)
[66] New Zealand Statistics (2013)
[67] https://www.mcnz.org.nz/alpinfo/public-and-private-health-systems?utm_source=newzealandnow.govt.nz
[68] http://www.workingin-newzealand.com/live-and-settle/health-and-wellness/healthcare#.U9ohOfldUYE
[69] See http://www.health.govt.nz/new-zealand-health-system/claims-provider-payments-and-entitlements/high-use-health-card-payments
[70] http://www.healthfunds.org.nz/pdf/HFANZ_Fact_File_April_2013.pdf

assessment.[71] This means that, while New Zealanders may incur costs of residential care in the same way as UK pensioners, they do not always incur costs if they require home care (although they do have to pay for meals if these are delivered to them at home). While individuals who require home care may receive Attendance Allowance this may not meet all of their home care costs.

Access to retirement savings
Individuals meeting residential requirements can access both state support and their own private pension income from age 65. They can access KiwiSaver savings at age 65 or 5 years after they started to save in KiwiSaver, if this is later. Early withdrawals from KiwiSaver, without penalties, are possible in particular circumstances, such as poor health, financial hardship and for an individual to purchase their first home.

Retirement age
While the official retirement age for both men and women is 65, the effective retirement age is 66.7 for men and 66.3 for women.[72] This demonstrates relatively high workplace pension participation among those individuals aged over 65. One potential explanation for this is the fact that the New Zealand flat rate residency-based state pension, which people receive regardless of their work status, does not disincentivise working beyond age 65.

Concerns/observations
Historically, there was a concern that household saving was low and declining, and that some individuals would not have sufficient retirement income. The introduction of KiwiSaver was a response to increase the savings of a target population; those individuals who might expect to have a shortfall in their retirement income. However, an evaluation found that only a third of KiwiSaver savings were new savings and that those individuals who might be expected to have inadequate retirement income from other sources were not any more likely to save through KiwiSaver.

The New Zealand annuities market has been portrayed as being in a 'death spiral' due to a shrinking longevity pool and because New Zealand Superannuation is indexed to the higher of Consumer Price Index (CPI) or wages and covers a considerable amount of longevity risk. Fewer individuals have purchased annuities, meaning that longevity risk is shared between fewer people which has lowered annuity rates that in turn, has further reduced demand.[73]

There are no limits on how individuals can access their KiwiSaver savings. However, amounts accrued to date in KiwiSaver accounts have been relatively small, something that should be taken into account when considering any evidence. The first KiwiSaver members who were 65 years of age became eligible to withdraw their savings in 2012. Research estimated that around three

[71] http://www.health.govt.nz/publication/needs-assessment-and-support-services-older-people-what-you-need-know
[72] OECD (2012)
[73] The Strategic Society Centre (2014)

quarters of KiwiSaver members will have made a full withdrawal within five years.[74] In addition, members with lower levels of KiwiSaver savings were more likely to have made a full withdrawal at the time of the research. Similarly, members with higher levels of other savings and investments were more likely not to have withdrawn any of their KiwiSaver savings.

Individuals with no other savings or lower levels of other savings were more likely to spend their KiwiSaver savings or use them to pay off their mortgage debt. In contrast, individuals with higher savings/investments were more likely to reinvest them. This suggests that some individuals who access their KiwiSaver savings do so because they have immediate financial needs and lack the other assets to meet these.

[74] Inland Revenue (2013)

United States

Coverage of state person
Average person would receive around 40% of final earnings from the public pension. This can include a minimum pension (Social Security Minimum Benefit), designed to help workers who have had low earnings for many years, and an earnings-related pension. In addition, a means-tested supplement (Supplemental Security Income) is available to older individuals, among other groups such as individuals with a disability. The full amount of earnings-related pension that individuals can receive varies according to their level of earnings and length of their working life.

The number of individuals who receive the Social Security minimum benefit has been dwindling because this is only indexed by prices (whereas the earnings-related state pension is indexed by earnings, which typically increase at a higher rate), and because it is relatively difficult to be eligible for the Social Security minimum benefit. In 2014, the highest rate of the minimum pension is $816 per month, below the federal poverty guideline.[75]

Overview of the system
The US operates an earnings-related state pension alongside private pensions, some of which are workplace pensions. Employers are able to automatically enrol their employees but are not compelled to do so; approximately a third of the workforce is covered by automatic enrolment. Target Date Funds are typically the investment of choice for workplace DC pension funds.

Some Target Date Funds now include the provision for individuals to receive an annuity. Other variations include a guaranteed minimum withdrawal benefit; for example this might allow the individual to withdraw a minimum amount each year of their initial investment, even where the value of their funds goes down, protecting them from market losses.

Objectives
Objectives have not been set out explicitly for the US. However, it has been suggested that the following motivations may offer an appropriate fit:

- The regime is designed to counter short-term thinking by incentivising a long-term approach of pension saving; and
- A low level of social security benefits in retirement is designed to avoid people gaming the system.[76]

Size of pension fund market
At the end of 2013, total pension assets were estimated at $18,878 billion (£12,642 billion).[77]

[75] http://blog.aarp.org/2014/10/16/the-disappearing-social-security-minimum-benefit/
[76] Feldstein, M, Liebman, J. (2002)
[77] Towers Watson (2014)

Average size of DC pension pot
DC retirement saving in the US occurs in 2 ways, via 401(k) schemes or via Individual Retirement Accounts (IRAs). A 401(k) is an employer-provided DC plan where it is common for the employer to incentivise saving into the plan by matching employee contributions in some way. An IRA is an individual account similar to a personal pension in the UK.

In 2012, the average (median) IRA balance for individuals aged 60 to 64 was $49,899 (£33,414).[78] However, this only includes those individuals with an IRA. In 2011, the mean year-end 401(k) account balance for all ages was $58,991 (£39,503) while the median 401(k) account balance was $16,649 (£11,149).[79] As in other countries, there is a wide variation in savings behaviour in the US. For example, in 2014, two thirds of workers reported that they and/or their spouse had saved money for retirement.[80]

Tax treatment of pensions
Contributions into traditional IRAs are exempt from tax, with tax being paid at withdrawal. Roth IRAs are similar to IRAs, except that contributions into Roth IRAs are made from taxed income but withdrawals are tax-free provided that these meet certain conditions.

Type of costs to be covered by retirement income

- Housing costs - around 80% of people aged 65 or over in the US are homeowners, and around 30% of homeowners aged 65 or over have outstanding mortgage debt.[81] This suggests that a group of pensioners will be required to meet housing costs in the form of mortgage repayments.

- Health costs - while the health costs of older people in the US are covered by Medicare, individuals are required to make a contribution towards their Medicare health insurance. The level of premium depends on individual's financial circumstances; in 2014, most people paid $104.90 per month.[82] Separate premiums are required to pay for prescription drugs; however, these are only payable for individuals in receipt of higher incomes and are lower than health insurance premiums; in 2014, individuals with an annual income of $85,000 are not required to pay premiums towards their prescription drugs while individuals earning above $85,000 and up to $107,000 per year are liable for premiums of $12.10 per month.[83] For individuals in receipt of social security, these premiums are deducted from their benefits. In terms of total health care costs, it is estimated that the health care cost per capita was approximately $9,000 in 2013.[84]

[78] EBRI (2014)
[79] EBRI (2012)
[80] Retirement Confidence Survey (2014)
[81] Office for Older Americans (2014)
[82] http://www.medicare.gov/your-medicare-costs/part-a-costs/part-a-costs.html
[83] http://www.medicare.gov/part-d/costs/premiums/drug-plan-premiums.html
[84] http://www.ncsl.org/research/health/health-finance-issues.aspx

- Social care costs - Medicare does not cover costs associated with long-term care services for older people. However Medicaid, a different scheme that applies to individuals of all ages, can pay for long term care for older people. This is targeted and the eligibility criteria are very restrictive. In practice, the majority of older people make regular payments for health insurance. In addition, if they do require long term care, they are likely to be fully liable for the costs of this. While long term care private insurance is available in the US this tends to be a niche product which serves individuals with relatively high income and/or accumulated assets.[85]

Access to retirement savings
Any benefits drawn from an Individual Retirement Account (IRA, a tax-advantaged retirement savings account, before the age of 59.5) attract a 10% income tax penalty. In addition, savers must start withdrawing benefits from their retirement arrangements by age 70.5. The required minimum withdrawal for each year is calculated by dividing the IRA account balance by an applicable withdrawal period[86] or life expectancy.

Early withdrawals from IRAs, without penalty, are allowed in particular circumstances, such as poor health, financial hardship and where an individual emigrates.

It is possible to access retirement savings prior to the age of 59.5 years, subject to a 10% early withdrawal penalty. Many 401k plans offer a facility where savers can borrow back some of their balance, typically up to 50% of their balance.[87] It is possible to leave money within the 401k plan (workplace pension) offered by the employer, and make withdrawals.

During their retirement, an individual may retain their money in an IRA or, if their employer permits, their 401(k) plan and draw their retirement income down directly from this vehicle.

Retirement age
While the official retirement age for both men and women is 66 (increasing to 67), the effective retirement age is 66 for men and women.[88] However, individuals can receive a reduced amount of public pension from age 62. They can delay receiving this until the age of 70 and, if they do so, the public pension increases by 8% for every year's delay in receipt. As medical insurance is frequently paid by an employer and Medicare is payable from age 65 (with some employers such as schools paying retiree health benefits, under certain conditions, from their scheme's normal retirement age, e.g. 60 until age 65), there has been some discussion around the extent to which individual's delay retirement in order to become eligible for retiree health benefits. While it has been concluded that the effect of health benefits on retirement age is small

[85] OECD (2012)
[86] Determined by the Internal Revenue Service
[87] Investment Company (2014)
[88] OECD (2012)

relative to the effect of pension benefits on retirement timing,[89] health benefits are a factor in the US pensions system that does not affect behaviour in the UK.

Concerns/observations

There are concerns that public programmes, such as social security and Medicare, are experiencing shortfalls in funding. Similarly, public employee programmes, such as those for teachers, are severely underfunded.[90]

- Insufficient retirement resources - there are also concerns that individuals are at risk of having insufficient retirement resources to pay for basic expenditure and any health costs not covered by insurance, including nursing home and home care expenses. It is estimated that almost half (47.2%) of the cohort aged 56 to 62 in 2010, are at risk of having insufficient resources. Within this group, 41% of those in the lowest income quartile will have run out of money ten years into retirement, compared to less than 5% of the highest income quartile. A smaller proportion of younger groups are estimated to be at risk of having insufficient retirement resources. Around 44% of those aged 46-55 in 2010 are estimated as being at risk of having insufficient retirement income. This lower level of estimated risk is due to the assumption that individuals are automatically enrolled into 401(k) plans.[91] While these estimates rely on assumptions around areas such as expenditure,[92] they provide an indication of areas of concern.

The US experience also highlights another issue; that individuals are responsible for choosing at what rate they draw down their pension funds. There is evidence that some retirees are decumulating their assets very slowly,[93] with reports of individuals underspending during retirement because they fear not having sufficient resources to meet very high costs (e.g. healthcare costs) or for bequest purposes. It has been asserted that this behaviour does not follow the normative framework of the 'life-cycle hypothesis' whereby individuals spend down assets as their remaining life expectancy decreases, and explanations put forward for this include a strong bequest motive and uncertainty around life expectancy. Another contributory factor identified has been cognitive decline, particularly in later retirement. While there is no conclusive evidence in this respect, evaluation of the role of cognitive decline leads to identification of the factors that US retirees should consider in order to make decisions around their level of consumption in retirement. These have been identified as expected longevity, investment returns, medical shocks, social security benefits and pension benefits. The uncertainty of the first three factors along with potential complexity around areas such as investment returns and pension benefits, illustrate the challenges around managing retirement resources in the absence of annuitisation.

[89] Brown, M. (2014)
[90] Brown, M. (2014)
[91] EBRI (2010)
[92] For instance, estimated expenditure is based on the 2008 Consumer Expenditure Survey, and estimated expenditure is based on experience for a given family size and income level
[93] Cognitive ability and post-retirement asset decumulation

Appendix C: The cost of social care

Estimates suggest that a quarter of older people will spend very little on care, 1 in 4 will face costs over £50,000 and 1 in 10 will face care costs over £100,000.[94] As the provision of social care funding by the state is means-tested in England, Wales and Northern Ireland, individuals may have to meet these costs themselves. While the proposed cap applicable in England from 2016 to these is £72,000,[95] this relates to direct care costs only and individuals may pay accommodation costs in addition to these, with the Institute and Faculty of Actuaries estimating that individuals will spend, on average, £140,000 before they breach this cap.[96]

Local authorities pay for care services where an individual has insufficient means to pay for it. From 2016, the proposed maximum amount of assets including their home that an individual can have before they have to pay for social care is £118,000. In households where the head of household is aged over 65, 70% owned their own home outright in 2012-13,[97] suggesting that many individuals will have to pay for at least some of their social care. They may use their housing wealth to do so and may be able to use a deferred payment scheme where a charge is placed against their property when it is finally sold.

In addition to these arrangements, if individuals aged over 65 have a disability and require care for this they can receive Attendance Allowance. This is not means-tested and is payable at the rates of £55.10 or £82.30 per week and therefore provides all individuals with some level of cover for the cost of care services. Despite this, individuals in the UK (although to a lesser extent in Scotland than in the other countries) could rationally be concerned about high levels of social care costs and, if they have sufficient pension assets, might be expected to retain some of their pension pot in order to meet this type of high cost.

[94] Age UK (2013)
[95] Age UK (2013)
[96] http://www.actuaries.org.uk/news/press-releases/articles/just-8-men-and-15-women-entering-care-aged-85-today-are-likely-reach-ne
[97] DWP (2014)

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References

Age UK (2013) *The 'Dilnot social care cap' making sure it delivers for older people*

Agnew, J. (2013) *Australia's retirement system: strengths, weakness, and reforms*

Ameriks, J. Veres, R. Warshawsky, M. (2001) *Making Retirement Income Last a Lifetime*

APRA (2014) *Quarterly Superannuation Performance September 2014*

Bateman, H. Piggot, J. (2010) *Too Much Risk to Insure? The Australian (non-) Market for Annuities*

Brown, M (2014) *The trade-off between health and wealth in retirement decisions*

Browning, C. Huston, S. Finke, M (2014) *Cognitive Ability and Post-Retirement Asset Decumulation*

Centre for Ageing Research and Development in Ireland (2014) *Summary: Wealth of Older People in Ireland North and South*

Challenger (2012) *How much Super do Australians really have?*

Cooper, J. (2014) *Are Defined Contribution Pension Plans Fit For Purpose in Retirement?*

Deloitte Access Economics (2012) *Australian health insurance: extrapolated savings from health and medical research*

DWP (2014) *Family Resources Survey 2012-13*

DWP (2013) *Older Workers Statistical Information booklet*

Employee Benefit Research Institute (EBRI) (2014) *Individual Retirement Account Balances, Contributions and Rollovers2012; With Longitudinal Results 2010–2012: The EBRI IRA Database*

Employee Benefit Research Institute (EBRI) (2012) *401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2011*

Employee Benefit Research Institute (2010) *The EBRI Retirement Readiness Rating: Retirement Income Preparation and Future Prospects*

Feldstein, M. and Liebman, J. *Social Security* in Auerback, A. and Feldstein, M. (2002) *Handbook of Public Economics*

FCA (2014) *Thematic Review of Annuities*

Government of Ireland (2007) *Green paper on pensions*

HM Treasury (2014) *Freedom and choice in pensions*

IFS (2012) *Fund holdings in defined contribution pensions*

Indecon (2007) *Review of the Irish Annuities Market*

Inland Revenue (2013) *KiwiSaver, early retirement withdrawal survey*

Investment Company Institute. 2014. *2014 Investment Company Fact Book: A Review of Trends and Activity in the Investment Company Industry*. Washington, DC: Investment Company Institute. Available at www.icifactbook.org.

Murray D. (2014) *Financial System Inquiry*

OECD (2008) *Pension County Profile: New Zealand*

OECD (2011) *Help Wanted? Providing and Paying for Long-Term Care*

OECD (2012) *Average retirement ages*

OECD (2014), *OECD Reviews of Pensions Systems: Ireland*, OECD Publishing. *http://dx.doi.org/10.1787/9789264208834-en*

Office for Older Americans (2014) *Snapshot of older consumers and mortgage debt*

ONS (2012) *Occupational Pension Schemes Survey*

ONS (2012) *Older Workers in the Labour Market*

PPI (2014) *How will automatic enrolment affect pension saving?*

Social Policy Institute (2013) *In the Red and Going Grey? Wealth and Debt as Australians approach Age Pension Eligibility Age and Retirement*

Statistics New Zealand (2013) *New Zealand Census of Populations and Dwellings 2013*

The Strategic Society Centre (2014) *New Annuity Era: Understanding retirement choices and the annuity puzzle*

Towers Watson (2012) *The Evolving Australian Retirement System*

Towers Watson (2014) *Global Pension Assets Study 2014*

Warshawsky, M. (2013) *DC Plan Payout Practices and Policies in Canada, Switzerland, UK, Australia and Singapore*

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