The retirement income market

Comparative international research

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Contents

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1 Executive summary

The Financial Conduct Authority (FCA), the UK conduct regulator for financial services, commissioned Oxera to conduct an international comparison of retirement income markets as part of the FCA's market study into retirement income. This report presents Oxera's findings.

Oxera's study is intended to inform the FCA's market study by examining the retirement income markets in countries that have experience relevant to the UK in terms of consumers making decisions at retirement regarding retirement income products. The focus is on competitive dynamics of retirement income markets, the providers, the types of products available, the behaviour of consumers and the regulation of these markets. The countries included in this study are:

- Australia;
- Canada;
- Chile;
- Denmark;
- Ireland;
- the Netherlands;
- New Zealand;
- Singapore;
- Switzerland;
- the USA.

This executive summary provides an overview of the ten retirement income markets and presents the key findings of the study. These include the supply- and demand-side factors affecting consumer outcomes, the relative importance of these factors, the role of regulation, and the key lessons for the development of retirement income markets.

1.1 Overview of the retirement income markets

Oxera's study considers the decisions that consumers make regarding retirement income products purchased with accumulated defined-contribution (DC) type pension savings. The main DC pension systems (including both accumulation and decumulation or pay-out phases) vary considerably across the ten countries, resulting in a wide range of outcomes (in terms of what can be accessed and what is accessed by prospective pensioners) regarding the three broad categories of retirement income products considered (lifetime annuities, income drawdown products and lump sums)—as summarised in Table 1.1 below.

Table 1.1 Summary of retirement income markets by product type

Country	Lifetime annuities	Income drawdown products	Lump sums
Australia	Allowed, but very little demand	Allowed. Main options are account-based income streams	Allowed and relatively common
New Zealand	Allowed, but there are no annuity providers in New Zealand	Allowed	Allowed and relatively common
USA	Allowed, but demand is weak. 9% of retirees have significant annuity income	Allowed	Allowed
Canada	Allowed, with significant demand	Allowed, although with restrictions in some cases	Limited for DC pension schemes
Ireland	Required, unless income can be shown to be above threshold to qualify for income drawdown	Allowed given sufficient income	Restricted to 25% or 1.5 times income as tax-free lump sum (taken by most people)
Switzerland	Default option, and subsidised	Not allowed	Allowed, but discouraged
Denmark	Unlimited deferred annuities	Restricted amounts can be allocated to term annuities	Allowed
Netherlands	Mandatory	Not allowed	Not allowed*
Singapore	Mandatory	Not allowed	Not allowed
Chile	Default option	Restricted to 'programmed withdrawals'	Not allowed
UK	Formerly primary option. Allowed	Currently restricted to 'capped drawdown' and 'flexible drawdown' products	25% tax-free, taken by most people. Expected policy is for whole pot to be available, taxed at marginal income tax rates after 25% tax-free allowance

Note: * Except for very small pots which would provide an annuity income of less than €417 (£330)[1] per year (a fund of around €12,000 (£9,600).[2]

Source: Summary of the data and sources presented in the individual country sections.

To date, the debate around pensions has primarily focused on the accumulation phase (in particular the level of consumer participation)—this study focuses on the decumulation phase. The study does not attempt to define what a 'good' outcome looks like for the decumulation phase (the suitability of different products depends on the particular circumstances of the individual), but instead considers the factors that contribute to the outcomes observed.

There is only limited research into how consumers make retirement income choices in the ten countries. This means that the analysis presented in this report primarily involves a qualitative linking of observed outcomes with the identified drivers of consumer choices. Ideally, there would be consumer survey data on the choices that consumers make and the reasons for those choices, but such data is currently limited. While there is widespread concern that consumers in the post-Budget UK landscape may use up their retirement savings too quickly

[1] See Dutch Association of Industry-wide Pension Funds, 'The Dutch Pension System: an overview of the key aspects', section 6.2 (http://www.pensioenfederatie.nl/Document/Publicaties/English%20publications/Nederlandse_pensioensysteem_Engelstalige_versie.pdf).
[2] On the basis of an index-linked annuity rate of 3.5%.

and run out of money, there is little empirical evidence that this is actually happening elsewhere where such freedom and flexibility is allowed.

1.2 The supply side: retirement income markets (section 3)

The provision of retirement income products in the ten countries primarily reflects the respective regulation and taxation structures, as well as consumer demand. Consequently, the supply side does not appear to be a primary driver of outcomes in terms of choices between broad categories of retirement income products. However, supply-side issues do affect consumers in terms of their particular outcomes from the specific products they choose, and regulators are concerned about (a potential lack of) competition between providers and (excessive) fees and charges.

Key findings on the supply side include the following.

- The scale and maturity of retirement income markets vary greatly between the ten countries, although it is only in the smallest markets (New Zealand and, to a lesser extent, Ireland) that there is evidence that a lack of economies of scale may be seriously affecting provision of products.
- The availability and accessibility of products is primarily a reflection of what is allowed by regulation and/or the impact of taxation. There is evidence of product innovation in some markets (notably the USA) but less so in others, even where product types are not restricted (e.g. Australia).
- Supply-side issues such as adverse selection, the availability of assets that match liabilities, and measuring and taking on longevity risk, do not appear to be severe constraints on the supply of lifetime annuities; lack of demand (in certain countries) is typically the most important factor in determining the supply of at-retirement products.
- Regulators have acted to increase price competition between product providers—partly in response to consumers' tendency to acquire retirement income products from their pension fund provider (a concern in Australia and Canada), and partly in response to high levels of fees and charges (e.g. introducing price comparisons in Chile).
- The structure of fees and charges varies considerably between products and countries, and also between providers and intermediaries. Data on fees and charges is rather limited, although regulation on this issue focuses on improving disclosure to customers.

1.3 The demand side: the consumer journey (section 4)

Consumers' decisions about retirement income products are framed by the structure of regulation and taxation in each pension system, but also by the relative importance of their DC pension funds in providing income during retirement—i.e. their decisions depend on the pension system and their alternative sources of income. However, evidence from the ten countries points to the importance of advice and guidance, as well as consumer preferences, perceptions and behaviour, in determining the outcomes observed.

Key findings on the demand side include the following.

- The consumer journey varies considerably between countries. In some systems, it is tightly controlled by regulation, with consumers having relatively few choices to make; in other systems, consumers have much broader scope to make choices and, indeed, sometimes total flexibility.

- Where customers can make choices at retirement, the process can be considered to be: pension fund-led (e.g. Switzerland, Denmark, the Netherlands); government-led (e.g. Chile, Singapore); or saver-led (e.g. Australia, the USA, New Zealand).
- Consumer decisions within the range of choices depend on the size of the consumer's DC pension fund, their particular circumstances and the other sources of retirement income they expect to receive (e.g. state pension, defined-benefit, DB, pensions). This means that outcomes in retirement income markets depend on the maturity of the scheme (i.e. how long those now retiring have been in the scheme), and state and DB pension systems, and vary by age of the retiree and across the income distribution.
- The main providers of advice and guidance to retirees include pension fund administrators, product providers, financial advisers and governmental bodies. Regulators in many countries are concerned about the quality of advice and guidance on offer, and bespoke independent advice is typically only obtained by higher-net-worth individuals. Regulators have restricted commission payments (e.g. in Australia) and capped charges (e.g. in Chile) in response to concerns about payments influencing advice provided. Limited advice and concern about possibly poor outcomes (e.g. in terms of high fees or excessive risk) may be linked with consumers preferring mainstream 'default' options, and relatively low demand for innovative products.
- Financial literacy is high on the regulatory agenda in some countries—for example, in Denmark and New Zealand there are government-led programmes to improve consumer understanding of pensions. However, it is difficult to draw firm conclusions on the success of such programmes due to the absence of ex-post research/analysis.
- There is evidence to suggest that consumers prefer assets at certain points during retirement life, and also flexibility, and that these preferences vary across countries due to differences in cultural trends. For example, in Australia there is demand for initial lump sums to address housing costs (e.g. to pay off any remaining mortgage liability). In Chile, there is demand for assets to provide a bequest. In the USA, there is a perceived need for flexibility in case unexpected medical expenses are incurred.
- Consumer perceptions of the value for money of different retirement income products also vary between countries. Academic research tends to show that (in strictly economic terms) the value for money of annuities is reasonable in most countries, but that there can be significant variation between providers and products (highlighting the need for consumers to shop around), and that annuities themselves may not always offer the right balance of risk and return (e.g. for younger retirees, who could potentially return to work if a high-risk/high-average-return product turns out badly). Perceptions of value for money are affected by regulation and taxation (e.g. due to the regulated annuity rate in Switzerland), and also by the 'framing' of outcomes in terms of future consumption (e.g. in Switzerland) or of investment returns (e.g. in the USA or Australia).
- Other aspects of consumer behaviour are also highlighted in this report as being important in terms of consumer decision-making. Perhaps most notable is the impact of default options for retirement income products (e.g. with annuities in Switzerland). There is also discussion of the role of myopic behaviour and loss aversion, although the potential impact of these 'biases' needs to be considered in the context of more 'rational' consumer

preferences for up-front lump sums and the ability to make bequests. For example, demand for term annuities in Denmark could reflect myopic preferences, or it could reflect more rational requirements for resources early in retirement, such as for home improvements (as indicated by evidence from Australia).

1.4 Drivers of consumer decision-making (section 5)

The factors affecting consumer decision-making, as described above, have been assessed in terms of their relative importance. To do this, the study first assessed the extent to which outcomes in different countries can be explained by more tangible factors (e.g. regulation, taxation, relative importance of DC pensions), and then assessed the extent to which unexplained variation can be linked to less tangible factors (e.g. consumer preferences, perceptions and behaviour).

Key findings on the drivers of consumer decision-making are as follows.

- Many of the broad trends in demand for retirement income products can largely be accounted for by relatively tangible factors. Regulation, taxation (and benefit) structures and the relative importance of DC pensions go a long way to explaining demand for lifetime annuities, income drawdown products and lump sums. Countries with strong demand for lifetime annuities have clear incentives for choosing annuities over other products, while countries that do not incentivise annuities have low levels of take-up (e.g. Australia and the USA).
- The remaining observed variation in demand patterns can be linked to some less tangible factors. Oxera's report sets out the following observations:
  - the lack of lifetime annuity products which also provide features desired by consumers (e.g. up-front capital) may explain demand outcomes to some extent;
  - perceptions about value for money can be linked to significant variations in underlying demand for products, specifically annuities;
  - default options appear to have a significant impact on consumer choices and outcomes.

These observations have implications for the role of regulation, as discussed below.

1.5 The role of regulation (section 6)

Regulatory debate in most of the ten countries continues to focus primarily on the accumulation phase, particularly with regard to encouraging participation and (increasing) contributions, while minimising costs. Only in the more mature systems is the decumulation phase rising to the top of the agenda (e.g. in Denmark and Switzerland). But this situation is changing as all of the systems continue to mature.

Key elements of the regulatory debate around decumulation include the following.

- Financial literacy—addressing low levels of consumer engagement with, and understanding of, financial products in general, and retirement products in particular (e.g. in New Zealand and Denmark).

- Shopping around—helping people to find the best deals, for example by constructing price comparison websites (e.g. in Chile and New Zealand) or ensuring comparability of charges of products (e.g. in Australia).
- Advice and guidance—addressing low-quality or misleading guidance and advice, and cases of mis-selling (such as with Storm Financial in Australia).
- Product choices—ensuring that people will have an income for life, so that they do not become overly reliant on the state for support (e.g. means-tested benefits). Singapore has gone as far as replacing the state pension with the DC pension system. Ensuring also that people choose appropriate products in terms of risk appetite and capacity, although this varies by person and does not necessarily imply lifetime annuities.
- Fees and charges—capping charges in some cases (e.g. in Chile), but more often taking action to increase price competition (such as by encouraging shopping around).

Regulation can seek to achieve desired outcomes by taking account of consumer preferences, perceptions and behaviour. Evidence suggests that 'nudges' can be quite effective, for example:

- using default options, which appear to have a significant impact on outcomes—for example in Switzerland, where annuities provided by the accumulation phase service providers are the default option (indeed, Switzerland is the only country in this study where annuitisation is the default);
- ensuring that products have the features that consumers desire—such as the regulated products in Chile (e.g. allowing for bequests);
- framing perceptions of retirement income products in terms of future consumption, rather than investment returns, which may explain differences in attitudes in countries such as Switzerland versus the USA.

There are several theories that may explain certain consumer choices, but further evidence is needed to identify the likely drivers of consumer behaviour in the sample countries. For example, there is not enough evidence to draw firm conclusions on whether people's demand for a lump sum is driven by rational choice or by short-sightedness and loss aversion. The evidence that does exist, for example from Australia, on how people spend their lumps sums (e.g. when they cash in a pension pot on retirement) shows that a significant proportion is spent on home improvements and repaying debt, which consumers may prefer over annuities for entirely rational reasons, and which will provide a higher (effective) income than purchasing an annuity or income drawdown product.

1.6 Summary of key lessons (section 7)

The experience of the ten countries examined provides some useful observations on how consumers make choices at retirement, the current understanding of what affects those choices, and how markets have developed under different regulatory regimes.

- Regulation of retirement products in the countries examined is typically based on encouraging pensioners to ensure a life-long income through their DC pension schemes. Policy-making is typically driven by the belief that it is in people's best interest to have a stable income at retirement that will continue until death.

- Consumer preferences for differing levels of funds at different points in their lives can have a significant impact on demand, and may reflect rational choices based on preferences and actual requirements. Ensuring that retirement income products meet consumer preferences by increasing flexibility within existing product offerings can help to bolster demand for products that insure against longevity risk and provide lifetime incomes (e.g. the provision of annuities with bequest, features of products which combine programmed withdrawals with life annuities in Chile).
- Without strong incentives provided by regulation and taxation, consumer demand for annuities appears to be quite low (see, for example, Australia and the United States in particular). While this is the case, there is little empirical evidence to suggest that in countries with low annuitisation rates, pensioners tend to use up the majority of their pension pots early in retirement (and then run out of funds). Furthermore, there is little evidence to show that pensioners under-spend their retirement pots.
- While product innovation in the annuities market can help better meet consumer preferences, additional complexity may have an adverse impact on consumers. First, complex products may bring about an increase in charges and fees that consumers are not aware of. Second, complexity in products may make it more difficult to compare across products. This potential outcome highlights the importance of guidance or financial advice for pensioners.
- None of the countries have experienced policy changes directly comparable to the UK. In countries with similar levels of retiree freedom, the accumulation phase has been carried out with the future choices already in place. The market dynamics (on both the demand and the supply side) *may* be different, particularly at the transition, as in the UK market there will be no developed cultural norms relating to a liberalised decumulation phase. This means that there are limits to which certain experiences in other countries can be directly applied to assess how the UK market will develop going forward.
- Default options can be expected to have a significant impact on consumer outcomes. These can either be firm default options (e.g. annuities in Switzerland) or de facto default options (e.g. the shift from 401(k) to individual retirement account schemes in the USA). Regulators consider whether default options are likely to be the best option for most people. Even in countries with significant innovation (such as the USA), there appears to be a tendency for most people to continue with the main options available.
- Regulators have introduced interesting initiatives to improve financial literacy and consumer decision-making in general. Initiatives to improve shopping around perhaps have the clearest indicators of impact, such as the price comparison tool introduced in Chile, which is believed to have helped bring down fees. Countries that introduced initiatives to improve understanding about financial products have managed to raise the level of financial literacy (Denmark and New Zealand); however, it is difficult to draw firm conclusions on the success of such programmes due to the absence of ex-post research/analysis.
- The countries examined do not provide clear success stories in terms of delivering bespoke guidance and advice for the majority of pensions. Independent financial advice remains something that typically only higher-net-wealth individuals have access to. In countries where the majority of people have a wide range of choice (e.g. Australia, the USA), there is

concern about consumers making ‘bad’ choices, either in terms of the products they choose or between different suppliers of the same type of product. Although there is some anecdotal evidence of mis-selling (eg, in Australia), there is little evidence on the incidence of ‘bad’ outcomes in general.

Glossary of terms

Pillar I	State/public pension provisions
Pillar II	Funded employer-based pension provisions
Pillar III	Private pension provisions
DB	Defined-benefit
DC	Defined-contribution
Money's-worth ratio	A ratio that calculates the net present value of the expected payments from an annuity relative to the cost of the annuity

Source: Oxera.

2 Introduction

As part of its market study into retirement income, which commenced in February 2014, the FCA commissioned Oxera to conduct an international comparison of retirement income markets. The scope of the FCA's market study is explained in the revised terms of reference,[3] as follows:

> The market study into retirement income will consider products such as annuities and income drawdown. These are products purchased by individuals with their accumulated pension pot that provide an income during retirement. We will also be considering new financial products which might be offered to those approaching retirement. We will examine competition and choice in the context of the various options open to consumers when retiring. As part of this work we will assess the value for money associated with different at-retirement products in the future landscape.[4]

The purpose of Oxera's study is to inform the FCA's market study by examining the markets for retirement income products in countries that have experience relevant to the UK market:

- Australia;
- Canada;
- Chile;
- Denmark;
- Ireland;
- the Netherlands;
- New Zealand;
- Singapore;
- Switzerland;
- the USA.

The comparative international analysis of Oxera's study aims to provide insights into how the UK market may develop, based on the experience of these other countries. The focus, as described in further detail below, is on the competitive dynamics of retirement income markets, the providers, the types of products available, the behaviour of consumers, and regulation of these markets.

2.1 Objectives and scope

The FCA described two top-level objectives for this comparative international research:

> i. To understand how other markets have evolved, and whether there are predictions or lessons for the UK;
>
> ii. To understand what regulatory settings have been adopted elsewhere to ensure consumers get safe, good value products at retirement.[5]

Therefore, Oxera's study involved collecting information and views about the retirement income markets of the ten countries, and conducting a cross-country comparison to draw lessons for the UK.

[3] Issued in June 2014.
[4] Financial Conduct Authority (2014). 'Retirement income market study: revised terms of reference', 9 June, p. 2 (http://www.fca.org.uk/your-fca/documents/market-studies/retirement-income-market-study-revised-terms-of-reference).
[5] From the Statement of Requirements for the project.

2.2 Approach

This research was conducted during 4 July–12 September 2014, and was based on a combination of desk research of publicly available sources and interviews with national regulators, trade associations and other industry experts (including pan-national organisations).

2.2.1 Desk research

Oxera reviewed a wide range of publicly available sources regarding the retirement income markets of the ten countries, and researched retirement income systems more generally. The types of sources used are summarised in Table 2.1 below. A full bibliography is provided at the end of this report.

Table 2.1 Publicly available sources

Source
National regulators
Government studies
Academic research
Trade association reports
Pan-national organisations
National statistics offices
Consumer association guidance
Financial adviser published guidance
Corporate research

Source: Oxera.

2.2.2 Interviews

Oxera conducted a total of 32 interviews with 18 national regulators, 11 trade associations and three pan-national organisations during July and August 2014 (see Table 2.2 for a full list).

Table 2.2 Organisations interviewed by Oxera during July and August 2014

Country	Government/regulators	Industry
Australia	ASIC, APRA	ASFA
New Zealand	FMA	Workplace Savings NZ
USA	EBSA DoL	Academy of Actuaries, RIIA
Canada	CAPSA, regulators of Ontario, BC, Quebec, Office of Superintendent	Canadian Life and Health Insurance Association
Ireland	Pensions Authority, Central Bank of Ireland	IAPF
Switzerland	OAK BV	Swiss pension association
Denmark	Finanstilsynet	Forsikring og pension, Danish insurance association
Netherlands	AFM	Verbond van Vezekeraars, Pensioenfederatie
Singapore	MAS, CPF	–
Chile	Superintendencia de Pensiones	–
Pan-national organisations	European Insurance and Occupational Pensions Authority	OECD, Pensions Europe

Source: Oxera.

2.2.3 Limitations

Analysis of ten different retirement income markets in a relatively short research project will inevitably be subject to resourcing and time constraints. Although the approach to this research was designed to ensure that the main issues would be captured through a combination of desk research and interviews, it is important to note the following limitations.

- There is only limited existing research into how consumers make decisions at retirement, and Oxera's study aims to contribute to understanding of this important issue by providing empirical evidence. However, the study cannot address the lack of consumer research that would be required to capture the trends in the inherently subjective determinants of consumer behaviour.
- Data on more objective factors is also rather limited for some countries, and in some cases it was necessary for Oxera to make assumptions based on the views provided by market experts, as explained in the accompanying country analysis report. For example, numerous sources were required to understand what retirees currently do with their pension funds.
- Oxera's study looks to identify broad trends across the populations of individuals, but it should always be remembered that individual circumstances vary greatly, and different products will suit different people.

2.3 Structure of the report

This report provides Oxera's cross-country comparison analysis, followed by a bibliography. In-depth analysis for each country can be found in the accompanying country analysis report. The cross-country comparison is described in the following sections.

- **Section 3: retirement income markets—**describing the supply-side factors, including the role of DC pensions, regulation, taxation, products, providers and intermediaries.
- **Section 4: the consumer journey—**describing the demand-side factors, in particular the influences on consumer behaviour.
- **Section 5: drivers of consumer decision-making—**providing an initial assessment of the relative importance of different factors for determining outcomes.
- **Section 6: developments in regulation—**outlining key issues in the regulatory debate.
- **Section 7: summary of key lessons—**setting out key findings from the UK perspective.
- **Appendix 1**: Bibliography.

3 Retirement income markets

There is a considerable degree of diversity among the retirement income markets of the ten countries considered in this study, but there are also common themes in how these markets have evolved over time. The growing role of DC pension schemes has led to increasing debate around retirement income products in all countries, whether choices at retirement are tightly controlled by regulation or whether consumers have a high degree of flexibility (and responsibility).[6]

This section focuses on the supply-side aspects of retirement income markets, before demand-side features are considered in section 4. The section examines how the role of DC pension schemes has evolved over time, relative to other sources of retirement income, and how the changing regulatory and taxation frameworks have altered the range of products on offer. Different products have different types of provider, and this section also reviews the competitive dynamics in these markets (from a supply-side perspective). Finally, to complete the examination of the main elements of the supply chain of retirement income products the role of intermediaries is considered.

This section is set out as follows:

- section 3.1—evolving role of DC pension schemes;
- section 3.2—regulation of the decumulation phase;
- section 3.3—structure of taxation;
- section 3.4—retirement income products;
- section 3.5—structure of the retirement income market;
- section 3.6—role of intermediaries;
- section 3.7—fees and charges.

3.1 Evolving role of DC pension schemes

This report focuses on DC pension schemes (as the primary driver of consumer demand for retirement income products[7]). These schemes are growing in importance in all of the countries considered in this study (and in many other countries[8]), usually with older DB schemes diminishing in importance (although there are some important exceptions such as the Netherlands, where important changes have been made to DB schemes). To date, much of the policy debate has been on the accumulation phase of DC pension systems, as the relative immaturity of most DC pension systems means that most of the participants are in work, with only a small proportion having reached retirement age.[9] As more people with DC pension pots reach retirement age, the importance of choice at the decumulation phase will rise on the regulatory and political agenda.

[6] Oxera prepared a cross-country comparison regarding this debate covering 14 EU member states in Oxera (2013), 'Study on the position of savers in private pension products', report prepared for the European Commission, January.

[7] Demand for retirement income products can come from DB pension schemes, if the member of the scheme cashes out their entitlement and uses the funds to buy a retirement income product. This is possible in a number of countries, but is not an extensive practice (as consumers and regulators recognise the value delivered by DB pension entitlements).

[8] For further information on these trends, see Oxera (2013), 'Study on the position of savers in private pension products', report prepared for the European Commission, January; and Oxera (2008), 'Defined-Contribution Pension Schemes: Risks and Advantages for Occupational Retirement Provision', report prepared for EFAMA January.

[9] The role of DB and DC pension schemes during the accumulation phase was examined in Oxera (2008), 'Defined-Contribution Pension Schemes: Risks and Advantages for Occupational Retirement Provision', report prepared for EFAMA, January.

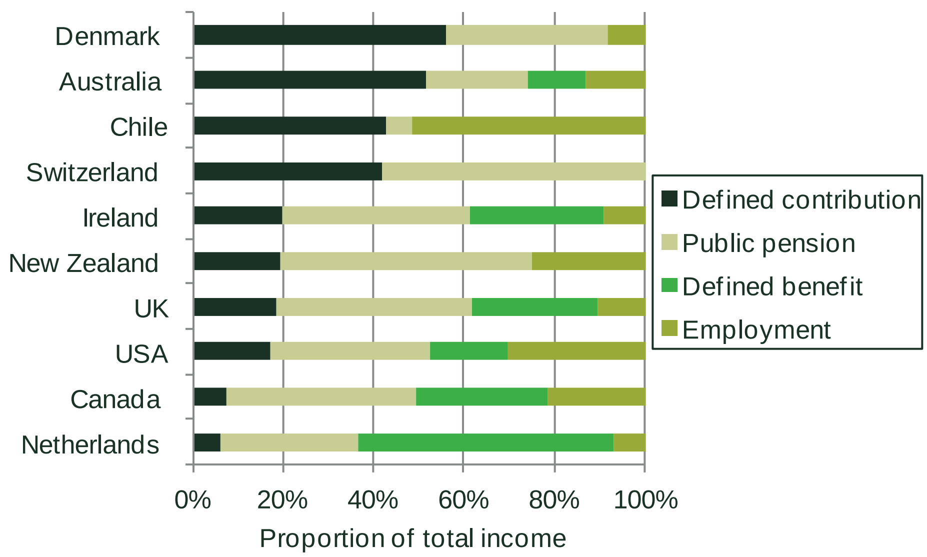
3.1.1 The relative importance of DC pension schemes

The role of DC versus DB schemes for those at retirement age varies greatly by country, but the following groupings can be seen.[10]

- Countries where DC schemes are near-universal (Chile, Denmark, Singapore, Switzerland[11] and New Zealand[12]).[13]
- Countries where DC schemes are most important for retirees, although some people still receive significant DB pension incomes, primarily from public sector employment (Australia).
- Countries where DB schemes used to be dominant (and still are the norm in the public sector), but DC schemes are now dominant for workers in the private sector (USA, Ireland and also the UK).
- Countries where DB schemes still account for at least half of private sector workers, and therefore effectively dominate the sources of income for current pensioners (the Netherlands, Canada).

Using OECD data on income sources, Figure 3.1 below presents estimates of the extent to which retirees currently rely on income derived from DC pension schemes, relative to other sources of income. The figure excludes Singapore due to lack of data.

Figure 3.1 Estimates of income sources for pensioners1 (for the median of the income distribution)



Notes: Data is based on estimates of the value of income sources for those in the middle of the income distribution, relative to the median average earnings. Countries are ordered by relative importance of DC pension plans to pensioner incomes.

[10] Consistent data on the proportion of pension income that comes from DC and DB pension schemes was not available.
[11] While in principle occupational pension schemes in Switzerland are DC, they have some features of DB schemes due to government regulation of investment returns and annuity rates.
[12] The private pension system has only recently developed in New Zealand, with the introduction of the KiwiSaver account.
[13] It should be noted that this is a growing group of countries, and now includes a number of eastern European countries that have introduced mandatory DC pension schemes (they are not included in this study, as they are new schemes that have involved few retirees in the decumulation phase).

[1] Retirement ages are: 60 in Chile (women) and the UK (rising to 65); 64 in Switzerland (women); 65 in Denmark, Australia, Chile (men), Switzerland (men), New Zealand, UK (men), Canada and the Netherlands; and 66 in Ireland and the USA.

Source: Oxera analysis of OECD Pensions Outlook data. No data on earnings from employment is available for Switzerland.

Figure 3.1 shows that DC pension scheme income is already particularly important for pensioners in Denmark, Australia, Chile and Switzerland. In countries where DC pensions are rapidly growing in importance (the USA, Ireland, New Zealand and the UK), the share of income is less pronounced but is still in excess of 10% of average earnings. In Canada and the Netherlands, DC pension schemes currently represent only a small income stream for pensioners, on average.

An important issue for policymakers arising from this analysis is whether the accumulated DC pension funds are required to create a sufficient lifetime pension income, or whether consumers can be allowed more flexibility in how they use the funds. Two of the countries at the top of Figure 3.1 (Denmark and Chile) have relatively strict regulation regarding the use of the funds, which may be expected given the relative importance of DC pension funds for current retirement income.[14]

The need for DC pension funds to provide lifetime pension income will vary across the income distribution within all of the countries. For an assessment of the decisions that consumers make at retirement, it is helpful to categorise individuals into three broad groups:

- Group 1: those with low levels of wealth and small retirement funds (defined here to be less than approximately two times their average income level), who will primarily rely on state pensions in their retirement;
- Group 2: those with more significant retirement funds, which can significantly boost their retirement income, but who have few other sources of income in retirement;
- Group 3: those with significant other sources of retirement income. These include high-net-worth individuals and those with significant DB pension entitlements. Group 3 individuals do not need to rely on their DC retirement funds to secure a reasonable (for them) retirement income.

The relative size of each group varies by country, primarily depending on the availability of other sources of income (as presented in Figure 3.1) and general wealth levels. For example, the vast majority of people in Chile would fall into Group 2, as DC retirement funds are the primary source of retirement income. However, only a small portion of the population in the Netherlands will fall into Group 2, due to the prevalence of DB pension schemes. Estimates of the relative proportions falling into each group are summarised in Table 3.1.

[14] The Netherlands provides a contrasting example of where there is strict regulation of DC pension schemes without those schemes being that important across the population, as the Netherlands aims to ensure that DC schemes are able to replace many of the features of DB schemes.

Table 3.1 Estimates of the relative proportions of individuals falling into the classified groups

Country	Group 1	Group 2	Group 3
Australia	Large minority (c. 40%) retire with smaller pension pots	Accounts for the majority of retirees	Mainly high-net-worth individuals, as DB schemes are rare
New Zealand	Clear majority as pension funds are still small	Small proportion as pension funds are still small	Mainly high-net-worth individuals, as DB schemes are rare
USA	Large minority (c. 40%) rely primarily on state pension	Large minority (c. 40%) rely on DC pensions or 401(k) type savings	Significant minority due to legacy DB schemes and high-net-worth individuals
Canada	Minority that rely primarily on state pension	Growing minority that rely on DC schemes	Majority of retirees due to prevalence of DB pension schemes
Ireland	Majority of retirees due to limited take-up of occupational pensions	Significant minority due to growth of DC schemes	Significant minority due to legacy DB schemes and high-net-worth individuals
Switzerland	Very few, as system mandatory	Vast majority, as mandatory coverage	Small proportion of high-net-worth individuals
Denmark	Small minority that rely primarily on state pension	c. 90% of retirees will receive DC pension income	Small proportion of high-net-worth individuals
Netherlands	Small proportion of retirees due to widespread DB schemes	Around 5% of retirees, mainly self-employed	Vast majority of workers due to prevalence of DB pension schemes
Singapore	Very few, as system mandatory	Mandatory system covers everyone	Small proportion of high-net-worth individuals
Chile	Significant minority (c. 40%) rely on small state pension	Accounts for the majority of retirees	High-net-worth individuals
UK[15]	30–40% of recent retirees depend primarily on state pension and income-related benefits	Accounts for less than 20% of recent retirees	Perhaps half of recent retirees due to legacy DB schemes and high-net-worth individuals

Source: Summary of the data and sources presented in the accompanying country analysis report.

3.1.2 The role of retirement income products

Given this focus on the relative importance of funds in securing lifetime income, options for a person retiring with a DC pension fund can be grouped into three broad categories, which are used throughout this report.

1. Buying a **lifetime annuity**, which provides an income for life and therefore insures the individual against running out of funds, irrespective of how long they live.

   There is also an important distinction between deferred lifetime annuities and immediate lifetime annuities. The consumer has to decide on deferred annuities well ahead of their retirement date, which changes the nature of the consumer decision-making process (see section 4). This may be a decision made during working life, regarding the allocation of pension contributions (such as in Denmark), or at retirement, for an annuity income to start later in life (such as with the 'longevity pension' concept in Australia, which may begin paying as late as 85 years of age).

[15] UK estimates are based on data taken from Department for Work and Pensions (2012–13), 'Pensioners' income series', 1 July 2014 (https://www.gov.uk/government/collections/pensioners-incomes-series-statistics--3).

2. Shifting pension funds into an **income drawdown** product, which will typically provide an income in retirement (many products require the person to take a minimum amount each year, and some also have a maximum limit) but there is flexibility in how much income to receive. Importantly, these do not insure against funds running out.

3. Taking a **lump sum** (subject to the relevant taxation), with which the individual can largely do as they wish. This may involve leaving the funds in a savings vehicle to be withdrawn as and when required (with no maximum withdrawals). However, some savings vehicles do have minimum withdrawals (e.g. MySuper in Australia).

In the policy debate, the choice between products depends on the context of the scheme, and in particular the extent to which a scheme is viewed as a pension scheme, explicitly aiming to provide a pension income, or more as a long-term savings vehicle. This distinction is not entirely clear-cut—for example, the taxation structure of the Australian MySuper scheme is not that different from any typical form of saving (since both are taxed at contribution and accumulation, but not decumulation), except the former is specifically designed for saving for old age (and has lower marginal tax rates, providing some incentive). A number of the pension schemes examined for this study do allow for early withdrawal of funds, sometimes with specific allowances for funding house purchases or education.

In the first and second categories, a range of products and product features (e.g. a widow's pension) are available. The remainder of this section considers how these products are supplied in the markets of the ten countries, considering regulation and taxation, product types, product providers, and the intermediaries involved.

3.2 Regulation of the decumulation phase

The regulatory regimes differ considerably between the ten countries (see the accompanying country analysis report for full descriptions). This section provides some observations that can be made across schemes.

Regulation differs between countries in terms of the extent of freedom it gives to consumers to choose what they do with retirement funds:

- countries that provide very limited choice (Chile, Denmark, Singapore and the Netherlands), usually with a small selection of tightly regulated products that ensure a relatively steady stream of income for life, or at least for most of life;
- countries that allow more flexibility in terms of income drawdown products and lump sums, but consumers are still constrained in terms of their choices (Switzerland, Ireland, and, to some extent, for occupational DC schemes in Canada);
- countries that place a high degree of responsibility on individuals to make their own choices regarding their retirement pots (USA, Australia, New Zealand, and, to some extent, for individual savings products in Canada).

These variations are reflected in regulation of product types. Countries that have strict regulation typically do not allow lump sums to be taken (or only restricted to certain amounts) and also have restrictions on income drawdown products. The regulations regarding each of the main product types are summarised in Table 3.2.

Table 3.2 Summary of regulation by product type

Country	Lifetime annuities	Income drawdown products	Lump sums
Australia	Allowed	Allowed	Allowed
New Zealand	Allowed	Allowed	Allowed
USA	Allowed	Allowed	Allowed
Canada	Allowed	Allowed	Limited for DC pension schemes
Ireland	Allowed	Allowed given sufficient income	Restricted to 25% or 1.5 times income
Switzerland	Default option	Not allowed	Allowed, but discouraged
Denmark	Unlimited	Restricted options for term annuities	Allowed
Netherlands	Mandatory	Not allowed	Not allowed*
Singapore	Mandatory	Not allowed	Not allowed
Chile	Default option	Restricted to 'programmed withdrawals'	Not allowed
UK	Formerly primary option. Allowed	Restricted to 'capped drawdown' and 'flexible drawdown' products	25% tax-free. Expected policy is for whole pot to be available, taxed at marginal income tax rates after 25% tax-free allowance

Note: * Except for very small pots which would provide an annuity income of less than €417 (£330)[16] per year (a fund of around €12,000 (£9,600).[17]

Source: Summary of the data and sources presented in the accompanying country analysis report.

As well as regulations specifically allowing or not allowing certain options, taxation forms a core part of how consumer choices are controlled, as discussed in the next section.

3.3 Structure of taxation

The taxation structures that apply to DC pension schemes are typically described with reference to whether taxation is applied to the:

- contributions made by members and their employers;
- investment returns during the accumulation phase;
- withdrawals from the pension fund after retirement (the decumulation phase).

Consequently, the occupational DC pension schemes in the UK can be described as 'EET', as contributions and investment returns are exempt ('E') from taxation, while withdrawals are taxed ('T'). Of course, this summary is a simplification, and there are important variations that need to be considered. For example, in the UK, the pensioner is allowed to take 25% of the fund as a tax-free lump sum, so the 'T' element is only partial.

The focus of this report is primarily on the decumulation phase,[18] and the choices people make at retirement. The lump-sum feature of the UK system

[16] See Dutch Association of Industry-wide Pension Funds, 'The Dutch Pension System: an overview of the key aspects', section 6.2 (http://www.pensioenfederatie.nl/Document/Publicaties/English%20publications/Nederlandse_pensioensysteem_Engelstalige_versie.pdf).
[17] On the basis of an index-linked annuity rate of 3.5%.

clearly creates a strong incentive for people to take 25% of their pension fund as a lump sum, to avoid taxation, and is therefore an important driver of choices that are made at retirement. Similarly, features of the taxation systems of other countries influence consumer choices.

Other forms of taxation can also be relevant. This report highlights for consideration two particular additional features of the tax and benefit systems of countries:

- **inheritance tax—**many retirees consider making a future bequest and the tax consequences of doing so. Taxation of bequests can alter decisions at retirement;
- **means-tested benefits—**pensioner benefits that depend on income and/or wealth levels (which, in practice, act as a form of taxation of non-state pension income) can also alter decisions at retirement, if, for example, choosing a lump sum could allow the individual to avoid losing means-tested benefits.

Importantly, the way in which the taxation system affects incentives depends on the relative wealth of the individual. Many relevant tax rates are income-related and the relevance of means-tested benefits will also depend on income.

The taxation systems of the ten countries included in this study are compared in Table 3.3 below, which summarises how the taxation system affects the choices made at retirement. The analysis makes reference to smaller pension pots (defined here to produce an annuity income of less than twice average earnings) and larger pension pots (over twice average earnings).

[18] Taxation of contributions and investment returns during the accumulation period are still relevant for the choices people make at retirement, as they influence people's decisions on how much and where to invest for retirement. These features of the taxation system are explained further in the accompanying country analysis report.

Table 3.3 Impact of taxation on incentives

Country	Lifetime annuities	Income drawdown products	Lump sums
Australia TTE	Neutral	Neutral	Encouraged for smaller pension pots by means-tested benefits
New Zealand TTE	Taxation discourages annuities (which are not available)	Neutral	Neutral
USA (mixed)	Largely neutral across all options overall, but depends on individual and some options may be preferable for a given individual		
Canada EET	Neutral	Neutral, except larger withdrawals are taxed more heavily	Larger withdrawals are taxed more heavily
Ireland EET	Neutral	Tax incentivises withdrawals of 5% per year	Tax-free lump sums are highly attractive
Switzerland EET	See lump sums	Not available	Taxation system can favour lump sums over annuities for those with higher tax rates. Lump sums may also be encouraged by means-tested benefits
Denmark ETT	Neutral (no limits)	Term annuities are limited by tax-deductibility threshold	Limited by taxation (TTE system for lump sums). Some incentives due to means-tested benefits
Netherlands EET	Neutral	Not available	Not available
Singapore EEE	Neutral	Neutral	Not available
Chile	Neutral	Neutral	Not available
UK	Neutral	Neutral	Currently taxed at 55%. Expected to be reduced to marginal taxation rates

Source: Summary of the data and sources presented in the accompanying country analysis report.

3.4 Retirement income products

There is a wide range of retirement income products that are available in the ten countries, although in some countries (e.g. the USA) there are more products available than in others (e.g. Denmark). These products can be categorised within the framework of the three product groups described above (lifetime annuities, income drawdown products and lump sums), on the basis of whether:

- they insure against longevity (i.e. a lifetime annuity). Such an annuity does not necessarily have to be fixed or risk-free,[19] but does have to provide an income for the whole of an individual's life, irrespective of how long they live. These products therefore require providers to take on longevity risk;
- they provide a basis for drawing on funds to provide a relatively stable income flow, but without insurance against longevity (i.e. income drawdown products). These are typically invested in risky assets to some extent, but this category would also include fixed-term annuities, which provide a fixed income for a fixed period of time without adjustment based on life expectancy;

[19] For example, an investment-linked lifetime annuity would provide an income that varies according to stock market performance, and is therefore risky, but would provide such an income for the whole of life.

- they simply hold a pot of funds for use as the pensioner wishes, without any restrictions on withdrawals or guidance to assist the provision of a retirement income stream. This includes holding funds in a long-term savings account, such as the KiwiSaver in New Zealand.

Table 3.4 below provides a summary of the types of retirement income products that fall into these three categories, which are discussed in further detail in the sub-sections below. New products are constantly being developed, but the three broad groups remain relevant.

Table 3.4 Retirement income products

Category	Volatility	Impact on decumulation choices
Lifetime annuities	Low	Fixed nominal lifetime annuity
		Index-linked lifetime annuity
		Deferred lifetime annuity
		Enhanced lifetime annuity
		Guaranteed annuity (only partial insurance)
		Capital-protected annuity (only partial insurance)
	High	Investment-linked lifetime annuity
		Variable lifetime annuity
Income drawdown products	Low	Fixed-term annuity
		Programmed withdrawal (tightly regulated, e.g. in Chile)
		Guaranteed lifetime annuity (partial drawdown product)
		Capital-protected annuity (partial drawdown product)
	High	Typical investment-based income drawdown product
Lump sum	Low	Bank account-held funds
	High	Investment-based savings vehicle

Source: Oxera.

The relative use of the three different product groups varies considerably across the countries, as presented in Table 3.5. In many cases, individuals will use their DC funds to buy more than one product—for example, by taking out a lump sum but also buying an annuity. This means that there is overlap between the estimates for the different products in some cases.

Table 3.5 Relative frequency of uses of DC funds

Country	Lifetime annuities	Income drawdown products	Lump sums
Australia	Small proportion, may be less than 1%	Approximately 50% buy retirement income products, including annuities	Approximately 50% take lump sums
New Zealand	Zero, no annuities	Still undeveloped	Vast majority, although little information exists on how lump sums are used
USA	9% of all retirees have significant income from annuities	23% of all retirees have significant income from DC savings, including income drawdown products	
Canada	A significant minority of DC pension funds	The majority of DC pension funds	Lack of data
Ireland	Approximately 30% of DC funds*	Approximately 50% of DC funds*	Most people take out tax-free lump sum entitlement
Switzerland	80% of people buy annuities	Not available	20% of people choose lump sums
Denmark	With new regulation, 52% of payments are into lifetime annuities	46% of funds purchase fixed-term annuities	2% of funds purchase lump sums
Netherlands	All cases (except for very small pension pots)	Not available	Not available (except for very small pension pots)
Singapore	All retirees must set aside the minimum sum for a CPF Life annuity	Undeveloped market	Retirees typically take lump sums from CPF savings above the minimum sum
Chile	Approximately 60% of retirees	Approximately 40% of retirees	Not available
UK	Historically the vast majority of retirees with DC pension pots above the minimum, but expected to decline	Historically a relatively small market and largely limited to those with bigger pots	Most people take out tax-free lump-sum entitlement

Note: * Estimate of 30% for Ireland supported by the Pensions Authority and Irish Association of Pension Funds as being a reasonable estimate, given lack of data. Given the prevalence of lump sums, this would suggest that approximately 50% goes to income drawdown products.

Source: Summary of the data and sources presented in the accompanying country analysis report.

3.4.1 Lifetime annuities

All of the lifetime annuities guarantee income for life, without being dependent on how long the recipient lives, but there are many possible features of these products and the income stream can be variable. Particularly popular features include:

- index-linking payments, so that the real value of income is protected;
- guaranteeing that the annuity will continue to pay for a set time period (e.g. five or ten years), even if the individual dies within that period;
- providing some capital payment to the individual's estate.

There is innovation in lifetime annuity products in nearly all of the ten countries, within the restrictions posed by regulation. Table 3.6 sets out some examples of innovative products. There are typically more examples of innovation in countries with less regulation (e.g. the USA), although market size may also be a driver of innovation (e.g. as indicated by fewer examples of innovation in Ireland).

Investment-linked or variable lifetime annuities are available in some markets, particularly in the USA. The payments are linked to the performance of risky assets or that of a wider fund (such as 'with profits' schemes), so the income stream is volatile but not related to age. These annuities are often combined with guaranteed minimum income levels to provide some security.

Innovation in annuities can be stymied by available information—for example, enhanced annuities are widely available in the UK, but not elsewhere. These annuities require reliable information about the life expectancy of people with specific medical conditions. These mortality tables tend to be well developed for people aged 30 to 60, for the purposes of term life insurance, but less well developed for people aged over 60. This may limit the availability of this product.

Table 3.6 Examples of innovations in lifetime annuities

Country	Examples of innovative lifetime annuity products
Australia	• 'Longevity pensions', which are deferred annuities that are bought at retirement, with payments typically starting at age 85[20] • 'Market-linked' income streams, which are lifetime annuities but the payments can vary by up to 10% (set by regulation) due to variations in the value of the assets[21]
New Zealand	No annuities available
USA	• Variable annuities with a 'guaranteed lifetime withdrawal benefit', that guarantees a certain income whatever market conditions prevail[22] • 'Guaranteed Minimum Accumulation Benefit' (GMAB), which protects the value of the assets of a deferred annuity[23] • 'Continual payout plans',[24] which involve buying a five-year term annuity using part of the account balance, leaving the remainder in the account where it continues to grow tax-deferred (but is accessible). After five years another five-year term annuity is purchased
Canada	• Variable annuities with minimum income guarantees, and 'life benefits', which provide minimum income guarantees and/or asset protection, as with the USA innovations described in this table[25]
Ireland	No examples noted
Switzerland	Regulation restricts annuity innovation
Denmark	Regulation restricts annuity innovation
Netherlands	Regulation restricts annuity innovation
Singapore	Little private provision of annuities outside CPF Life
Chile	Regulation restricts annuity innovation
UK	• Enhanced annuities, paying higher amounts to those with shortened life expectancies, have grown strongly in the UK, and accounted for 28% of annuities at the end of 2013[26]

Source: Summary of the data and sources presented in the accompanying country analysis report.

[20] As explained by pensions adviser, Selecting Super (https://www.selectingsuper.com.au/learning_centre/choosing_the_right_retirement_income_scheme_product)
[21] As explained by Australian Taxation Office. For summary, see Cumpston Sarjeant (2012), 'Market linked pensions' (http://www.cumsar.com.au/docs/factsheet_market_linked_pensions.pdf).
[22] MarketWatch (2012), 'Variable annuity guarantees disappoint over time', 10 January (http://www.marketwatch.com/story/variable-annuity-guarantees-disappoint-over-time-2012-01-10).
[23] For an explanation of this, see Investopedia, 'Variable annuities with living benefits: worth the fees?' (http://www.investopedia.com/articles/retirement/08/variable-annuity.asp).
[24] For example, as provided by ING.
[25] See, for example, the Sun Life Canada offering on its website (https://www.sunlifedistributors.com/prodline/public/annuity/va/en/va_home.cfm.)
[26] Association of British Insurers (2013), 'The UK annuity market: facts and figures'.

3.4.2 Income drawdown products

A key feature of income drawdown products is how they are designed to help people spread their funds over retirement. This is how they essentially differ from a standard savings or investment account.

Where regulation is relatively strict, the drawdown rate is controlled by the regulator (e.g. programmed withdrawals in Chile). This typically means that a maximum withdrawal amount is set for each age (regulation of income drawdown products also often sets minimum withdrawal amounts, but this is more for the purposes of taxation than income planning). In less regulated regimes, the market has led to some innovation in methods to help people plan their income streams. In the USA, for example, products like the BlackRock CoRI funds are designed to provide retirement income guidance through a retail investment product.[27]

Some degree of flexibility is a typical feature of income drawdown products, but not always. Fixed-term annuities, which provide a fixed income for a number of years and then return the capital, are essentially income drawdown products with no flexibility.

Table 3.7 Examples of innovations in income drawdown products

Country	Examples of innovative income drawdown products
Australia	• Account-based income stream offer various options, such as capital guarantees and minimum returns[28]
New Zealand	Undeveloped market
USA	• 'Modified guaranteed' annuities, which are a fixed-term annuity that allows early withdrawal of funds, although at a cost if there are adverse market conditions (e.g. bond prices have fallen)[29] • The BlackRock CoRI retirement index, which provides guidance on how much inflation-adjusted income pension assets can provide[30]
Canada	• The registered retirement income fund and LIF options are defined by regulation
Ireland	• Approved retirement funds appear to be relatively standard, depending primarily on the investment funds chosen
Switzerland	Undeveloped market
Denmark	• Term annuities typically take the form of life expectancy phased withdrawals. The withdrawal amount takes into account the account holder's and spouse's life expectancy (in the case of joint policies), updated annually
Netherlands	Annuities are mandatory
Singapore	Annuities are mandatory
Chile	• A popular programmed withdrawal option allows for income to be drawn up to 200% of the annuitised amount, allowing early access to funds
UK	• There are currently two main types: flexible (subject to minimum income requirements) and capped income drawdown products, defined by regulation

Source: Summary of the data and sources presented in the accompanying country analysis report.

[27] As explained by BlackRock on its website (http://www.blackrock.com/investing/financial-professionals/defined-contribution/target-date-funds-and-investment-strategies/cori-funds).
[28] Financial adviser, Dixons Advisory, provides an overview on its website (http://www.dixon.com.au/knowledge-centre/self-managed-super-funds/paying-benefits-from-a-self-managed-super-fund/types-of-income-streams).
[29] For example, as provided by Prudential on its website (http://www.prudential.com/view/page/public/11631).
[30] See 'The BlackRock CoRI™ Retirement Indexes Site' (http://www.blackrock.com/cori/index-overview).

3.4.3 Lump sums

Lump sums are not a product per se, although in practice they often involve leaving funds within the retirement savings vehicle where the funds were accumulated. The main relevant options are:

- funding immediate consumption (e.g. a holiday);
- repaying debt (e.g. paying off the mortgage);
- leaving the funds in the retirement savings vehicle, typically in assets with some degree of risk (e.g. in New Zealand, keeping the money in the KiwiSaver account), and drawing on the funds as and when required;
- transferring the funds to another savings vehicle, such as a bank account or an investment fund;
- buying an annuity or some other income-producing financial product.

The use of lump sums is a topic of interest to regulators, but there is little consumer research about how people actually use their lumps sums, except for Australia. Retirees in Australia reported using the funds for a wide range of reasons, including a significant proportion (30%) using funds for paying off mortgages or home improvements, as well as funding immediate consumption (see the accompanying country analysis report for full descriptions).

3.5 Structure of the retirement income market

The types of provider of retirement income products depend on the type of products being supplied, in particular due to the attached longevity risk. The role of organisations in the accumulation phase can also be relevant in some countries. The types of provider in each of the three product groups are discussed below.

3.5.1 Lifetime annuities

Providers of lifetime annuities that take on longevity risk are regulated according to the considerable long-term risks associated with uncertain longevity. In practice, this means that there are three main types of provider:

- pension funds—DB pension funds typically provide annuity style incomes to their members. In Switzerland, larger DC pension funds provide annuities to their members;
- life insurance companies—the main suppliers of annuities in most countries;[31]
- governmental organisation—governments are in a position to take on significant long-term risk, and therefore could provide annuities (the only example included here is CPF Life in Singapore).

Table 3.8 below summarises the relative importance of these different providers in the ten countries.

[31] There are also some specialist annuity providers, which are life insurers only providing annuities, such as in the UK (presumably as it is possible to hedge longevity risk).

Table 3.8 Role of organisations in providing lifetime annuities

Country	Pension funds	Life insurers	Government
Australia	None	Only two major providers	–
New Zealand	No provision of lifetime annuities		
USA	–	Numerous life insurers	–
Canada	–	Seven major providers	–
Ireland	–	Seven major providers	–
Switzerland	Main provider (around 85%)	Small pension funds use life insurers (c.15%)	–
Denmark	–	Five large providers with 57% of market share, with many smaller providers	–
Netherlands	–	Numerous life insurers	–
Singapore	–	Very small private sector market	CPF Life is primary provider
Chile	–	15 providers	–
UK	–	14 providers[32]	–

Source: Summary of the data and sources presented in the accompanying country analysis report.

The level of concentration of providers of annuities has not been a primary focus of regulators, although where the annuity market is very weak (in particular, Australia and New Zealand), there is some concern about having so few providers.

Some regulators have taken action to improve price comparisons for annuities (e.g. Chile—see section 4 for further discussion). Regulators (including those in Chile, Canada and Australia) have noted consumers' tendency to select decumulation products from their accumulation provider, which suggests that there is a risk of customers receiving less competitive products from their accumulation providers. This suggests that measures are required to ensure that consumers shop around, even if the market is characterised by a significant number of potential providers.

It should be noted that even where there are numerous providers, there may not be much consumer choice, due to either a limited product range or consumers being tied in with a certain provider (as is typically the case with deferred annuities).

Risk

The risk faced by annuity providers is considerable, mainly due to the uncertainty surrounding longevity, but also due to difficulties in acquiring matching assets (assets with a similar term structure as the liability, which depends on life expectancy).

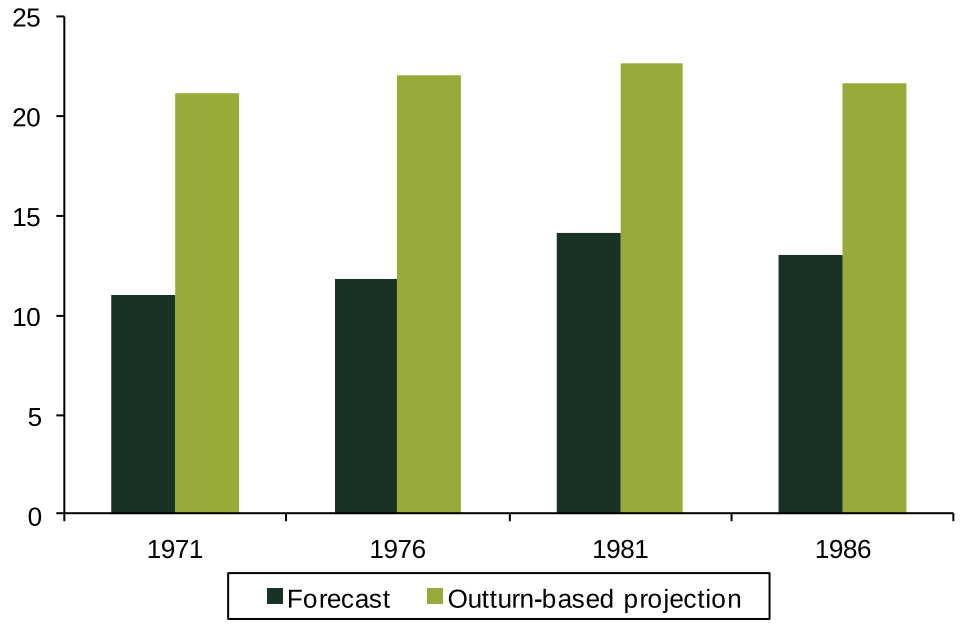
The large increase in longevity across the developed world in recent years was, to a large extent, not anticipated. This is illustrated in Figure 3.2 below, which shows how original life expectancy forecasts for the UK for the 1970s and 1980s proved to be significant underestimates, by as much as ten years, compared with the latest projections for the same groups of people.

[32] Association of British Insurers (2013), 'The UK annuity market: facts and figures'.

Structures have to be in place to assist providers in managing this type of risk. For example:

- pension funds and life insurers are often covered by some form of pension protection fund, in which the government provides either an explicit or implicit guarantee to maintain the promised payments to pensioners, to some extent, if the provider goes bankrupt;
- life insurance companies tend to be large multinational organisations, which aids risk-sharing, although changes in longevity (primarily driven by improved healthcare and lifestyle) are often common across countries. Strong annuity markets (such as in the UK) often involve secondary reinsurance markets, so the risk can be passed on to other investors (e.g. selling longevity-related structured bonds).

Figure 3.2 Expected residual life expectancy of a 35-year-old male when aged 65—UK forecasts versus outturn-based projections (years)



Notes: The chart compares life expectancies for the same groups of individuals based on original forecasts compared with the latest projections. For example, people who were 35 in 1971 (the left-hand-side pair of bars in the chart) were expected to live for a further 11 years from the age of 65 (i.e. to age 76) in 1971; the latest projections suggest that these people (who are now 78) will have an average life expectancy of 21 years from the age of 65 (i.e. on average they will live to be 86). This suggests that their actual life expectancy in terms of pension benefits is ten years greater than was forecast in 1971. Owing to the limited horizon of the Office for National Statistics (ONS) forecast, the forecasts in the table are estimated by extrapolating the exponential trend observed in the ONS forecast for mortality rates. The outturn-based projections are based on observed mortality rates for years before 2010 and on the 2010 ONS forecasts for mortality rates for subsequent years.

Source: Office for National Statistics and Oxera analysis.

The significance of risks involved in delivering longevity insurance could be seen to imply that larger and more mature annuity markets, where there are more options for sharing this risk, would have lower costs. Such variations in costs should be apparent in value-for-money estimates, which are typically presented using a ‘money’s-worth ratio’.

Money's-worth ratios

There have been various academic studies into money's-worth ratios for annuities. These calculate the ratio of the net present value of the expected payments from the annuity (weighted by the probability of the recipient being alive, which depends on life expectancy) relative to the cost of the annuity. Table 3.9 summarises the findings of several studies,[33] as presented by academics (see sources), who noted that:

> The surprising aspect of this table is that although annuity payments differ widely across countries, and by gender, the money's worth numbers are very similar and very high. This suggests that any dispersion in annuity payments can be explained in differences in the appropriate discount rates, and differences in mortality assumptions.[34]

Table 3.9 Estimates of money's-worth ratio for 65-year-old males

Country	Money's-worth ratio estimate
Australia	98.6–101.0
New Zealand	No estimates
USA	92.7–97.4
Canada	98.1
Ireland	87.4*
Switzerland	108.2
Denmark	No estimates
Netherlands	90–99
Singapore	99.7
Chile	96.7

Notes: A money's-worth ratio of 100 suggests that the insurer is not making any additional revenue on the annuity, as the present value of the expected future payments equals the price of the annuity. Estimates reproduced here are for 65-year-old males, based on annuitised life tables. Cannon and Tonks (2011) also provides estimates for 65-year-old females and estimates based on population-wide life tables. * Estimate for Ireland is from a different source (Indecon (2007)) from the other estimates, but based on the same assumptions regarding annuitant and life tables. Value for money in the UK is being assessed as part of the FCA's current market study and not included here.

Sources: Cannon, E. and Tonks, I. (2011), 'Annuity markets: Welfare, Money's worth and Policy implication', Netspar Panel Paper 24 (http://www.bath.ac.uk/management/research/pdf/tonks-cannon-annuity-markets.pdf); and Indecon and Life Strategies (2007), 'Review of the Irish Annuities Market', July, report for the Partnership Pensions Review Group (http://www.welfare.ie/en/downloads/reviewoftheirishannuitiesmarket.pdf).

The money's-worth ratio is notably higher for Switzerland, which would be expected given the statutory minimum annuity conversion rate, which is above the market rate. It is also notable that the estimate for Australia is high, at around 100), which is perhaps surprising given the weak state of the annuities market in Australia and the common perception there that annuities offer poor value for money (see the individual countries sections for further details).

[33] These results were collated in Cannon, E. and Tonks, I. (2011) 'Annuity Markets: Welfare, Money's Worth and Policy Implications', Netspar Panel Paper 24 (http://www.bath.ac.uk/management/research/pdf/tonks-cannon-annuity-markets.pdf).
[34] These results were collated in Cannon, E. and Tonks, I. (2011) 'Annuity Markets: Welfare, Money's Worth and Policy Implications', Netspar Panel Paper 24, p. 41.

The estimate for Ireland is below the others, although this estimate is from a different source. The authors of the report concluded that the estimate for Ireland was in line with estimates from the UK.

Importantly, there is no clear correlation between these estimates and the size and maturity of the market. These estimates would suggest that the annuities markets are working relatively well in these countries, although it should be noted that these analyses look at relatively competitively priced annuities (e.g. the main providers on the open market), and there may still be some products on offer that are much less competitively priced.

3.5.2 Income drawdown products

The provision of income drawdown products and savings vehicles associated with lump sums does not involve taking on significant risk, and therefore a broader range of providers often operate in these markets. Main providers include:

- life insurers;
- banks;
- asset managers.

The relative strength of these different types of organisations in the provision of drawdown products appears to depend on their roles in pension plan administration and their relative strength in the wider retirement income market or financial services more widely. This suggests that their existing relationships with customers are critical. For example:

- asset managers, such as BlackRock, provide a significant role in providing drawdown products in the USA, but their role in other countries is more limited. In the USA, employers typically have a fiduciary responsibility and therefore invite these major asset managers to offer services;
- life insurers play an important role in countries with strong annuities markets, such as Chile, Denmark, the Netherlands and the UK;
- banks play an important role in countries where the annuities market is not particularly strong, including Australia, New Zealand, Canada and Ireland. This may reflect the fact that banks are some of the main providers of accumulation products in those markets, and are therefore well placed to provide decumulation products to their existing customers.

Product innovation is an important feature of the income drawdown product market in most countries, except where innovation is limited by either regulation or market immaturity. For example, product innovation is:

- perhaps at its greatest in the USA, although also evident to a lesser extent in Canada and Australia;
- less notable in New Zealand, which probably reflects the immaturity of the scheme (there are few consumers with significant pension pots looking for products);
- restricted by regulation in several countries, including Denmark (only fixed-term annuities are allowed), Chile (only programmed withdrawals are allowed), and Ireland (regulated approved retirement funds, ARFs).

3.5.3 Lump sums

Lump sums are not a product per se, although in practice they often involve leaving funds within the retirement savings vehicle where they were accumulated or investing them in other financial products. Therefore, in terms of providers, the main organisations are those that administer the retirement savings vehicles, including banks, life insurers and asset managers.

3.6 Role of intermediaries

Various organisations can be involved in the distribution of retirement income products, and information about those products, to consumers. Distribution can be directly from provider to consumer, or an intermediary can be involved. Consumers may turn to financial advice. The role of intermediaries varies between the ten countries, but important organisations involved in distribution include the following.

- Pension fund administrators—the organisations administering the pension fund often provide retirement income products as well, and will therefore be active in selling those products. Even if they are not involved, pension fund administrators often provide some form of guidance to members about the options.
- Direct sales by providers of decumulation products—which may include life insurers, banks and asset managers directly marketing their product to consumers.
- Brokers and tied agents—which do not have fiduciary responsibility to serve clients and may be tied to particular providers. These may include some price comparison websites.
- Independent financial advisers—which come in various forms, with different regulations regarding their independence from providers; although, they typically have fiduciary responsibility to serve their clients' interests. Their focus is generally on high-net-worth individuals.
- Distribution systems run by regulators/government—for example, the electronic platform that provides comparison of annuity products in Chile.
- Consumer associations—and other bodies that represent only the interests of consumers reaching retirement.

The role of intermediaries in the consumer journey is discussed in section 4.3.

3.7 Fees and charges

The debate on fees and charges in pension systems has tended to focus on the accumulation phase—primarily the fees and charges of the investment funds, including contribution fees and annual management charges (AMCs). These fees affect the size of the final pension pot, and thus affect retirement decisions, although they do not directly affect retirement income products and markets.

There are also fees and charges for retirement income products, which vary across countries and between different products and services. The main fees that consumers need to consider in relation to retirement income products are:

- the implicit charges of providers of lifetime annuities, which can be indicated by the money's-worth ratio (see section 3.5) in terms of the net present value of fees;

- the usually more explicit annual charges of investment funds, which are the main form (but not the only form) of charges for most income drawdown products. There are typically additional undisclosed trading costs as well, which are paid directly from the fund;

- additional distributor fees (e.g. fees for financial advice or guidance), which may be priced as one-off charges or annual charges.

Available estimates of typical fees and charges across countries and products are variable in nature, and not directly comparable. To provide an approximate basis for comparison, charges can be considered in terms of the likely impact of fees and charges for a hypothetical pension pot of £100,000, withdrawn over a 25-year retirement period, in terms of a reduction to the initial value. On this basis, the impact of a 0.5% AMC has approximately the same impact as a 5% reduction in the initial value of the £100,000 pot, based on these assumptions, and therefore can be interpreted as being equivalent to an up-front cost of £5,000. Based on this, the following observations can be made.

Estimates for the charges of annuities are typically not available. The money's-worth ratio provides a basis for estimating the effective fees, relative to the underlying assets; although, these estimates are based on many important assumptions, including assumptions on longevity and providers' ability to match assets to liabilities. Money's-worth ratio estimates vary, but the evidence above suggests that charges for annuities may account for about 5–15% of the up-front value of the annuity.

Income drawdown product fees mainly derive from the AMCs of the investment funds; although, other fees may be charged for administration of the product, making changes to withdrawal amounts, or opening/closing the scheme. AMCs for income drawdown products are typically about 0.6% in Chile and about 1% in Australia (for MySuper accounts), New Zealand (for KiwiSaver accounts) and Ireland (for ARFs). Much lower AMCs (down to 0.2%) are available in the USA.[35] Using the rule of thumb described above, these estimates suggest a range of 2–10% of the up-front value.

Information on fees for advice and distribution is limited. In some countries, this information may be difficult to provide due to commissions being paid to advisers by providers (although of course ultimately paid for by consumers). In Chile, fees for advice can be no more than 2% of assets and no more than 60UF (c. £1,800). Estimates for the UK suggest a figure of about £1,800 for advice on an annuity, and about £2,600 up front for investment advice or 1% per year for ongoing investment advice.[36]

Finally, it should be noted that annual fees for pension-related investment funds have been observed to decline over time as pension schemes mature and the average size of pension assets per person increases.[37] It may be appropriate, therefore, to assume that the annual fees for income drawdown products, which are linked to investment funds, also have a downward trend as schemes mature.

[35] Based on ICI Research (2013), 'Trends in the Expenses and Fees of Mutual Funds, 2012' (http://www.ici.org/pdf/per19-03.pdf).
[36] Average charges as surveyed by *Which?*, January 2014, as reported in Jefferies, T. (2014), 'Undercover Which? probe finds financial advisers charging £1,579 for investing help', *This is Money*, 23 January (http://www.thisismoney.co.uk/money/investing/article-2543997/Which-probe-finds-financial-advisers-charge-average-1-579.html).
[37] For an extensive review of charges of pension funds in Europe and how they relate to the maturity of the scheme, see Oxera (2013), 'Study on the position of savers in private pension products', report prepared for the European Commission, January.

4 The consumer journey

This section examines the demand side of retirement products and describes the 'consumer journey' at the point of retirement. In particular, the section highlights the main factors that determine the choice of retirement income products, specifically the choice between annuities and other products. This provides the basis for section 5, which assesses the relative importance of different factors driving consumer choices.

First, the section outlines the process by which consumers purchase retirement income products, and describes how the process varies significantly across countries. While most decisions are made just before retirement, they are heavily influenced by the form of the pension system during the accumulation period.

Options for retirement are also heavily influenced by the relative importance of different sources of retirement income. Small DC pension pots may provide only limited annuitised income, which affects decisions. The need for a secure lifetime income during retirement also depends on the other sources of income that are available, including state pensions and DC pension schemes.

Furthermore, different systems differ in the prominence and form of financial intermediation at the point of retirement. Advice and guidance is provided by a wide range of different organisations, which influence the consumer in different ways.

This section also describes aspects of consumer preferences, perceptions and behaviour which may affect the demand for retirement products. These may be 'rational', such as preferences for bequests, or a result of behavioural biases, such as hyperbolic discounting and loss aversion.

The section ends with a description of initiatives in various countries to improve disclosure and financial literacy.

The section is structured as follows:

- section 4.1—the consumer decision-making process;
- section 4.2—the need for lifetime income;
- section 4.3—advice and guidance;
- section 4.4—consumer preferences;
- section 4.5—consumer perceptions;
- section 4.6—consumer behaviour;
- section 4.7—financial literacy and disclosure.

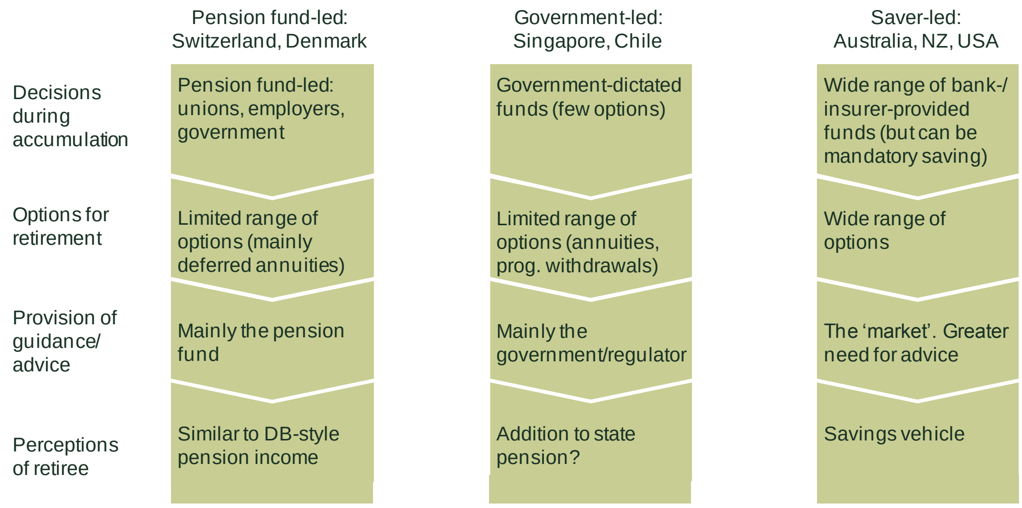
4.1 The consumer decision-making process

The consumer decision-making process in the approach to retirement depends on the nature of the private pension system and will involve a number of organisations. In some systems, this consumer journey is tightly controlled and consumers have relatively few choices to make, with regulation steering them towards certain outcomes. In other systems, consumers have much broader scope to make choices. In this context, as illustrated in Figure 4.1, pension systems can be classified as being:

- **pension fund-led**: where the system is tightly controlled by the pension fund (which will often be tightly controlled by 'social partners' including government, unions and employer representatives) and consumers have few choices to make. For the consumer, the experience is likely to be similar to the DB-style pension schemes, with pension payments being similar to an extension of past employment earning;

- **government-led**: where saving is dictated by government and consumers have few choices, since the resultant pension income acts as an addition to or replacement for the state pension in some respects. For the consumer, the result will be like an enhancement to the state pension;
- **saver-led**: where saving may be required by government, but consumers have a wide range of choices (both during accumulation and decumulation). For the consumer, the experience is akin to other forms of long-term saving.

Figure 4.1 Simplified illustration of different 'consumer journeys'



Source: Oxera.

The consumer experience at retirement is significantly affected by the accumulation process. The accumulation period provides the framework for the decisions to be made for retirement, and also affects the timing of those decisions. The main findings with regard to the ten countries included in this report are as follows.

- In continental European countries such as Denmark, Switzerland and the Netherlands, where pension plans are negotiated at the firm or union level, consumers tend to have limited options at retirement. Such systems are similar to DB schemes, in that the pension contribution is a standard part of the employment contract and the majority of workers retire with an annuity product. Not much deliberation goes into the choice of retirement products; rather, workers delegate that process to the social partners and receive their retirement income in the same way that they would receive their income during their working lives.
- Furthermore, in these countries (particularly in Denmark) annuities are partially or fully deferred in nature, such that the choice of retirement income product is made during working life, rather than at retirement.
- Some systems are tightly controlled by government during the accumulation phase (e.g. Singapore, Chile), as the mandatory Pillar II pension system acts as a replacement for state pension provision. This means tight control of choices for the decumulation period as well.

- In systems where the consumer has a larger degree of control over their retirement savings during accumulation (the USA, Australia, New Zealand), members tend to prefer more flexible products, which allow more choice on how the retirement funds are invested and how much to draw out each month.
- Some countries have a mixture of systems, notably Canada and Ireland, both of which have pension fund-led occupational schemes as well as personal pension schemes, which give consumers a greater degree of flexibility.

4.2 The need for lifetime retirement income

The structure of a pension system typically dictates the range of options available for retirement (see section 3 for further explanation). An individual's decision on whether to annuitise depends on both the size of the annuity payments they would receive and the other sources of guaranteed income they have available to them (such as a state pension). It is therefore important to examine both the size of the pension fund at retirement and the alternative forms of income in all three pillars.

4.2.1 Size of the pension pot

The size of a pension pot tends to affect the choice between annuity and lump sum. For smaller pots, consumers are expected to prefer a lump sum over an annuity or income drawdown, as the fund size would be too small to provide meaningful lifetime income. As in the UK, the ten countries examined offer allowances to receive the pension fund as a lump sum if it falls below a certain threshold.

Research from Switzerland shows that a consumer's propensity to take a lump sum is strongly linked to the size of their pension pot.[38] Individuals with less than CHF1,000 (£650) of monthly Pillar II benefits (corresponding to a pension pot of approximately CHF170,000 or £110,000) are reported to face incentives to withdraw their pension savings in a lump sum, spend this and then apply for means-tested benefits, where they are able to do so.[39] There is, however, a lack of firm evidence on the extent to which this is an issue.

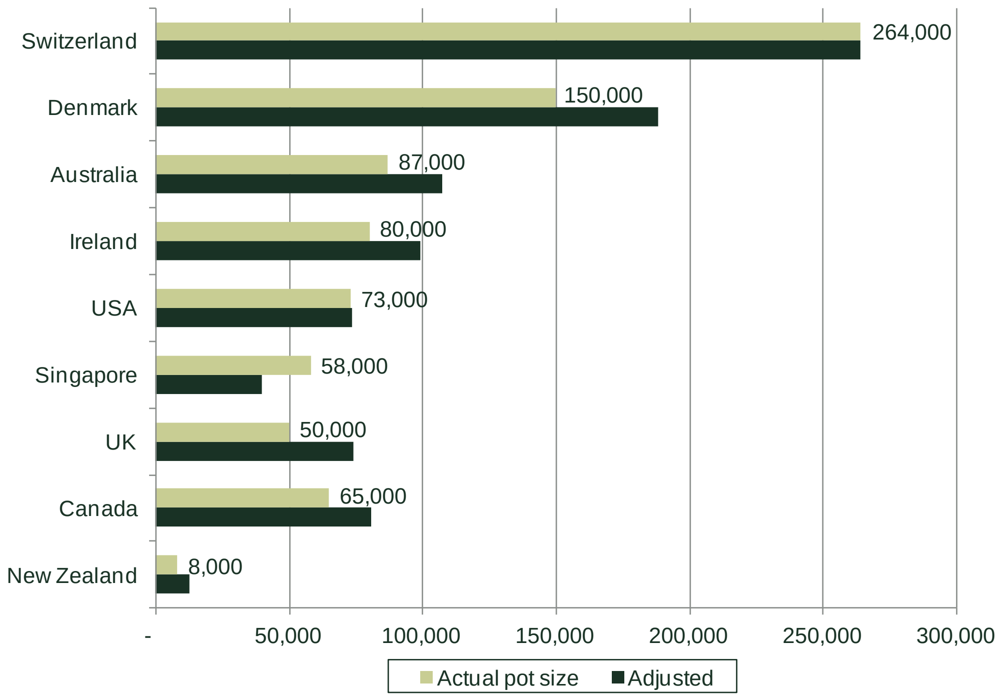
It is therefore important to consider the average size of pension savings from occupational pension schemes when comparing people's choices across different countries. Figure 4.2 indicates that there is significant variation in pension pot sizes across countries, even when accounting for the GDP per capita in each country. Furthermore, it is highly indicative that the two countries with the highest annuitisation rates, Denmark and Switzerland, also have relatively large pot sizes.

There are several factors that can affect the size of retirement savings from occupational schemes. The first is the maturity of the occupational DC scheme. In New Zealand, the KiwiSaver pension scheme has only been in place since 2007, which explains the smaller size of the average pension pot. More mature occupational schemes such as Denmark and Switzerland exhibit a significantly higher average pension pot size.

[38] Bütler, M. and Teppa, F. (2007), 'The choice between an annuity and a lump sum: results from Swiss pension funds', *Journal of Public Economics*, **91**:10, pp. 1944–66.
[39] Bütler, M., Peijnenburg, K. and Staubli, S. (2011), 'How much do means-tested benefits reduce the demand for annuities?', CESifo Working Paper No. 3493.

Another factor is whether people are allowed to use pension savings for other purposes. For example, in Singapore, although the pension contribution is 36% of earnings, many Singaporeans do not have very large pension pots. This is because the pension pot can be used to purchase a house or invest in education. In Denmark, on the other hand, there is a 60% penalty for withdrawing early.

Figure 4.2 Actual average pot size (£) and adjusted for GDP per capita

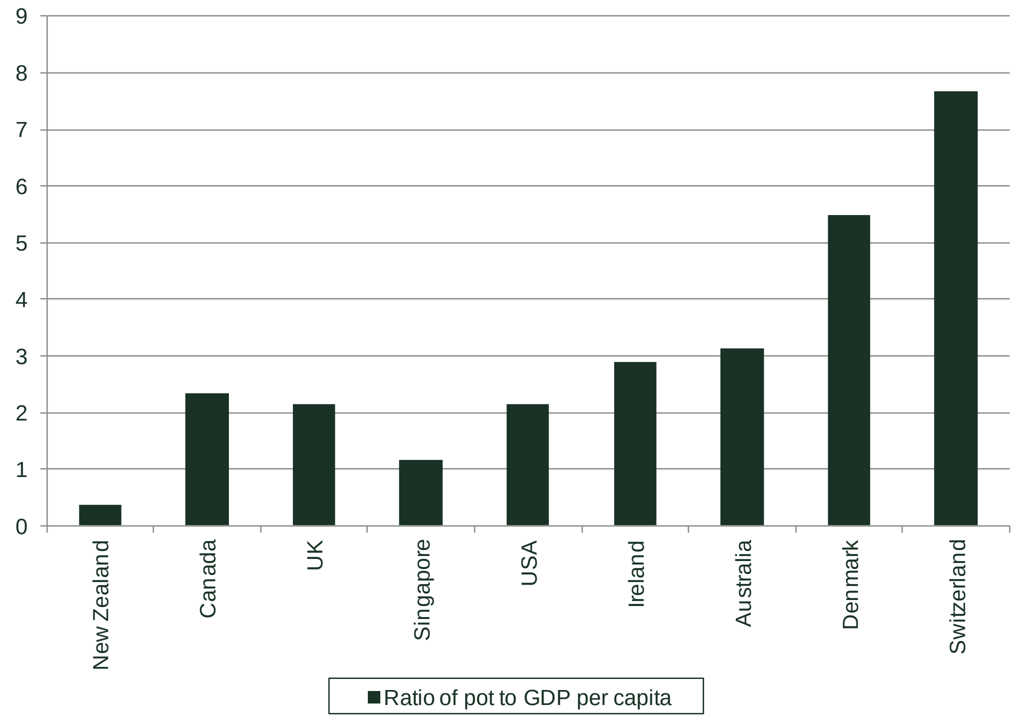


Notes: The top bar of each country shows the actual pot size in £; the bottom bar adjusts for GDP per capita based on purchasing power parity, by dividing by the ratio of the country's GDP per capita to the GDP per capita of Switzerland. UK: figure is an estimate of the average pension fund size for those with a non-trivial amount, based on the ABI estimate for the average size of an annuity purchase (£35,600 in 2013), uplifted to reflect typical 25% lump sums. Singapore: figure is the minimum required pot size; Australia: average pension of age group 60–64; Ireland: upper bound according to Irish Pensions Authority; New Zealand: median value, the scheme has only existed since 2007, so the figure is not representative of the pot size at the point of retirement; Switzerland: mid-point between range of £203,000 and £339,000; USA and Canada: median values. GDP per capita data based on Purchasing Power Parity from the World Bank. (http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD).

Source: Oxera analysis.

In addition, Figure 4.3 below illustrates the ratio of average pot sizes to GDP per capita for each country. Switzerland displays the highest ratio, with average pot sizes being on average 7.7 times GDP per capita; the corresponding ratio for the UK is 2.2. Presenting the data in this way attempts to make pot sizes more directly comparable by partially removing the influence of a country's GDP on pot size (a level effect).

Figure 4.3 Average pot size (£) scaled by GDP per capita



Source: Oxera analysis.

4.2.2 Legacy DB schemes

As described above, most countries have made the transition from DB to DC schemes, but even if certain countries have moved to DC schemes, there are still remnants of older DB schemes which could provide for an income at retirement. For example, an individual may be able to derive retirement income from both their current DC scheme and from older DB schemes from previous employers. As highlighted, the presence of such legacy DB schemes can be significant in providing income at retirement. In the USA, for instance, 9% of all workers aged 50 to 59 in 2010 were covered by both a DB and a DC scheme.[40] Moreover, DB plans still account for a significant part of household wealth holdings. In the USA, in a typical household where the household head was aged 55 to 64, defined benefits made up 23% of total wealth in 2010.[41]

4.2.3 State pension (Pillar I)

An important source of retirement income in most countries is the public pension scheme. However, the existence of the state pension may result in under-insurance from longevity risk due to moral hazard. By providing a source of steady income and partly insuring pensioners against longevity risk, the state pension may reduce incentives to purchase an annuity.

This effect will be even stronger where retirement benefits are means-tested. This has been an issue in Australia, where regulators are concerned about the existence of a 'lump-sum culture'.[42] As seen in Table 4.1, the provision of state

[40] Center for Retirement Research at Boston College, 'Pension coverage of all workers, by type of plan, 1989-2010' (http://crr.bc.edu/wp-content/uploads/1980/04/Pension-coverage.pdf).
[41] Center for Retirement Research at Boston College (2013), 'Frequently requested data – wealth holdings of a typical household with head age 55-64', February (http://crr.bc.edu/wp-content/uploads/1012/01/Table-11.pdf).
[42] Information provided by the Australian Securities and Investments Commission.

pensions is highly progressive in Australia, and the consumer faces an effective marginal 'tax' rate of 50% due to the tapering off of means-tested benefits. This could create an incentive for pensioners with small pension pots to take out their money as a lump sum, spend on current consumption, and then rely on the state pension.

In addition to the state pension, retirement benefits include other social assistance programmes for pensioners. Such benefits may be substantial. In Australia, pensioners receive financial health concessions, free medical card, and transport subsidies. In Ireland, the generosity of the system is partly due to the additional benefits provided. For example, the Household Benefits Package—a set of allowances to help with the costs of running a household—cost €335m in 2012.[43]

In Denmark, on the other hand, regulators provide clear regulatory and tax incentives for annuitisation, in an effort to avoid the exploitation of their generous welfare system. Following a report on introducing more freedom of choice into the Danish system about 15 years ago, the national debate has largely arrived at the consensus that, for low- and middle-income groups, compulsory annuitisation should be prioritised over freedom. In part, this is motivated by the aim to prevent moral hazard: there is a concern that a generous state pension may incentivise consumers to spend down other wealth, as they could be assured that the state system would offer some insurance against longevity risk. A regard to redistributive considerations also motivates this consensus, where there is a desire to ensure that the welfare system targets those who need it most.[44]

In Chile, the state pension is used to ensure a minimum level of income for all pensioners and to complement Pillar II. The state pension is means-tested, and equal to CLP82,058 (£85.95) per month (indexed). Individuals are entitled to this basic solidarity pension if they have not paid into the system (e.g. because they worked in the 'informal sector' outside the taxation system). Otherwise, in the event that the retiree has not contributed enough for the pension to equal a set minimum (CLP255,000 in June 2011, wage indexed thereafter), the state provides a pension solidarity complement.

One factor that may affect consumer choices at retirement is the protection against unexpected income shocks, particularly health-related shocks. Significant healthcare costs have been cited as one of the reasons why pensioners in the USA opt to retain more control over their retirement income. Medicare, the government-provided medical insurance, does not cover all healthcare costs. However, this approach does not apply to all countries. In Switzerland, the state does not provide medical insurance to pensioners and yet most pensioners opt for an annuity and use part of their income to purchase health insurance.

[43] OECD (2014), 'OECD reviews of pension systems: Ireland', OECD publishing, p. 46 (http://dx.doi.org/10.1787/9789264208834-en).
[44] Information provided by the Danish Financial Supervisory Authority.

Table 4.1 Replacement rates from public pension schemes

Country	Half of average salary	Average salary	1.5 times average salary
Australia	52.4	13.6	0.6
New Zealand	81.1	40.6	27
USA	49.5	38.3	33.4
Canada	63.1	39.2	26.1
Ireland	73.4	36.7	24.5
Switzerland	49.3	32	21.4
Denmark	68	30.6	18.1
Netherlands	59.1	29.5	19.7
Singapore	0	0	0
Chile	20.4	4.8	0
UK	55.2	32.6	33.4

Notes: The replacement rate is the ratio of retirement income after retirement to final salary pre-retirement. These figures estimate, in percentage terms, the replacement rate for individuals provided by public pension schemes for an individual earning the average salary as well as for those earning half and 1.5 times the average salary.

Source: OECD (2013), 'Pensions at a Glance 2013: OECD and G20 Indicators', OECD publishing (http://dx.doi.org/10.1787/pension_glance-2013-en).

4.3 Advice and guidance

Financial advice and guidance at the point of retirement can come from a variety of sources. The organisations involved in the distribution of retirement income products are discussed in section 3.6. The role of these organisations in providing advice and guidance in the different markets is discussed in this section, as summarised in Table 4.2.

Table 4.2 Role of organisations in providing advice and guidance

Country	Pension administrators	Providers of decumulation products and their agents	Independent financial advisers	Government/ consumer associations
Australia	Major role—often provide account-based pensions	Major role—direct consumer sales common	Not common—distrusted	Major role—the Australian Securities and Investments Commission offers comparison tools online
New Zealand	Major role—often provide account-based pensions	Major role—direct consumer sales common	Low usage (about 15%)	Major role through KiwiSaver Fund finder and other initiatives
USA	Important role for employers as plan sponsor	Major role—direct consumer sales common	Tend to be for high-net-worth individuals	Limited role
Canada	Important role for pension fund in providing advice	Major role—direct consumer sales common	Tend to be for high-net-worth individuals	Limited role

Country	Pension administrators	Providers of decumulation products and their agents	Independent financial advisers	Government/ consumer associations
Ireland	Major role—options leaflet from plan administrator often main source of guidance	Important role—offer product comparison tools	Typically only for high-net-worth individuals	Important role—e.g. Pensions Authority offers pension calculator
Switzerland	Major role (although little choice)	Limited role	Tends to be taken up in Pillar III	Limited role
Denmark	Major role, as provider of options for deferred pensions	Limited role	Major role—independent financial advisers made available by employers at no extra cost	Major role—industry insurance associations take lead with provision of, for example, PensionsInfo online tool
Netherlands	Major role as provider of options for deferred pensions	Limited role	Typically only for high-net-worth individuals	Major role—established Pensions Dashboard
Singapore	Limited due to role of government	Limited—few providers	Adviser market exists but little take-up for pensions	Main role due to mandatory CPF Life
Chile	Role limited by regulation	Major role, but controlled by government	Role diminished due to the SCOMP system*	Major role, including running PCW
UK	Major role, as often provider of products	Major role—direct consumer sales common	Typically only for high-net-worth individuals	Limited role at present; although this may change with the introduction of the Guidance Guarantee Initiative

Note: * *Sistema de Consultas y Ofertas de Monto de Pension*, government electronic quotations system.

Source: Summary of the data and sources presented in the accompanying country analysis report.

4.3.1 Pension administrators

Pension administrators (and in some cases the sponsoring employer) play an important role in providing information to retirees in most pension systems. They are the first point of contact as retirement approaches, typically providing information about choices. However, the role varies considerably between countries.

- European countries (Switzerland, Denmark, the Netherlands, and, to some extent, Ireland) have pension systems led by industries, typically involving ‘social partners’ comprising of trade unions, employers and government. These industry-based systems lead the design of the pension systems, the options available to consumers and the provision of guidance.
- In the USA, companies offering DC plans have a fiduciary duty to act in the interests of the members. Being the plan sponsor, they need to ensure that their employees’ money is secure and well managed; it is common for employers to invite advisers to their organisations to give presentations on retirement products to ensure that their employees have sufficient information before they retire.

- In Canada, the pension fund has a fiduciary duty to act in the interests of the members, but the employers often distance themselves from this duty (for instance with pooled pension funds for a number of employers).
- Providers of MySuper and KiwiSaver accounts in Australia and New Zealand (respectively) will also be providers of decumulation options, as one of the primary options is to keep funds in the account (referred to as account-based income streams). They will therefore have an incentive to sell their own decumulation products.
- In Chile and Singapore, the selection of decumulation products is tightly controlled by government, and therefore the role of the pension fund is limited.

4.3.2 Providers

The role played by pension providers shows considerable variation across the ten countries. 'The market' can be the most important source of information for the majority of people in some markets, such as the USA. The extent to which providers offer advice and guidance depends on the following factors.

- The structure of the pension system and whether providers have scope within which to operate.
  - For some of the ten countries, there is little scope for providers to operate. In Singapore, the Central Provident Fund—a social security scheme that covers all workers—largely accounts for pension provision, and while other providers exist, their role is very limited.
  - On the other hand, in countries where there is scope for providers to operate, such providers have a clear incentive to offer guidance. In Australia, where retirees have a good deal of autonomy and it is in providers' interest to elicit business, there are providers offering substantial online guidance.[45] There is also evidence of considerable provision of provider advice in Canada.[46] Similarly, in Ireland, some providers offer annuity price comparison tools, such as Aviva and Irish Life, which provide a comparison across their own products.
- The nature of consumer interaction with providers, and in particular, whether interaction occurs on a direct or indirect basis.
  - In Denmark, for instance, while providers are an important feature of the retirement landscape, employer-based pension schemes provide access to independent financial advisers at no additional cost, and companies run seminars to aid employees' understanding of the pension system—mitigating the incentive for providers to provide direct advice and guidance.

4.3.3 Independent financial advice and commission-based advice

In all of the markets, the role of independent financial advisers providing bespoke financial advice appears to be limited mainly to higher-net-worth individuals, perhaps with retirement savings of around £200,000 or more. This is

[45] See, for example, Challenger website (http://www.challenger.com.au/default.asp).
[46] Standard Life provides an overview of the legislative requirement for every province for group plan administrators. See Standard Life (2014), 'Summary of Pension Legislation', January (https://www.standardlife.ca/pdf/ge10129.pdf).

due to the perceived cost of obtaining such a service.[47] Providers tend to service the 'mass market' by offering off-the-shelf products.

Concern has been expressed in a number of countries about the possibility of distributors being incentivised to sell particular products to consumers, due to the way in which they are remunerated, which may not be in consumers' interests. There are important differences between lifetime annuities and income drawdown products in this respect, since:

- lifetime annuities are a one-off purchase, so the distributor will only receive a single payment (either directly from the consumer or indirectly via a commission payment from the provider); whereas income drawdown products are more likely to involve a stream of future payments, as investment decisions can be changed over time;
- disclosure of information on payments may have a larger negative impact on demand for lifetime annuities than income drawdown products, if the annuity fee is a single lifetime amount (and therefore large), while income drawdown fees are presented annually. Such disclosure may have a similarly negative impact on take-up of financial advice, as expressing commission payments up front as a single, large sum, as opposed to in percentage terms, can serve to deter consumers.

These issues may arise both where advisers receive commission from providers and where payment for advice is received directly from consumers, since the latter does not stop 'sales bias' which arises when there is a prospect of providing advice over a long period of time (rather than one-off advice). Table 4.3 summarises regulatory issues raised regarding the role of advisers in relation to retirement income products in the ten countries.

Table 4.3 Regulation of adviser remuneration in relation to retirement income products

Country	Commission-based advice	Direct payment by consumer
Australia	New regulation stops advisers from being paid by commissions	–
New Zealand	Disclosure of commissions required	–
USA	Some states are acting to limit commissions. Some advisers have a fiduciary duty to act in their clients' interests, which limits commissions	Regulator concern about 'sales bias' deterring advisers from recommending annuities
Canada	Commission based advice is allowed	–
Ireland	Qualified financial advisers can charge commissions	–
Switzerland	Commission based advice is allowed	–
Denmark	Advisers on occupational pensions may not receive commissions, although tied agents for Pillar III may do so	–
Netherlands	Regulation stops financial advisers from being paid by commissions	Up-front fees are typical for advice
Singapore	Commission-based advice is allowed and is widespread	–
Chile	Regulated	Regulation sets payments for advisers, to attempt to address 'sales bias' issue

[47] This perception may not always be well founded—sometimes consumers can pay more commission on a non-advised sale than they would have been charged for a full advice service.

Country	Commission-based advice	Direct payment by consumer for annuities versus drawdown
UK	Typically covered by Retail Distribution Review, therefore commission payments are banned	Wide variety of payments allowed, including provider facilitation of payment

Source: Summary of the data and sources presented in the accompanying country analysis report.

4.3.4 Government and consumer associations

In some systems (detailed below), financial guidance and intermediation are facilitated or provided centrally by the regulator, as part of a government initiative, or by consumer associations. Regulators are aware of people's inability or unwillingness to purchase bespoke advice and try to provide some general guidance. There are several ways in which governments participate in the intermediation process.

- First, by offering general advice or guidance and information on pension products. (Such financial literacy initiatives are described in more detail in section 4.7.) Successful examples include those of Denmark and New Zealand.

- Second, several regulators offer price comparison tools to help consumers find the lowest price. Examples include the following.

  - The New Zealand regulator, which provides a price comparison tool during the accumulation phase only. A 'Fund finder' service facilitates the comparison of funds across fees, services and returns;

  - In Chile, pensioners must purchase a retirement product through a centralised price comparison system run by the regulator; this is an electronic quotation system that aims to provide individuals with complete and comparable information about planned withdrawal offers and annuities. Evidence shows that the system has reduced inappropriate behaviour by financial intermediaries (such as very high commission charges by brokers)[48] and led to stronger price competition, with average commissions falling to 2.2%.

    However, it should be noted that the Chilean regulator only allows for the existence of four retirement products. This kind of simplicity allows for the effective comparison of different products, as opposed to markets with more complex products, such as the USA. For example, in Singapore, CPF Life originally proposed to offer 12 plans to consumers. On its introduction, this was condensed to four and after receiving feedback that it took 'significant effort to understand and choose among the four plans,'[49] the scheme was reformed again, offering only the two plans.[50]

[48] Rusconi, R. (2008), 'National Annuity Markets Features and Implications', OECD Working Papers on Insurance and Private Pensions, p. 27. See also Rocha, R. and Thorburn, C. (2006), 'Developing annuities markets: the experience of Chile', Directions in Development, Finance, The World Bank.
[49] Ministry of Manpower (2012), 'A simpler CPF LIFE', press release, 5 March (http://www.mom.gov.sg/newsroom/Pages/PressReleasesDetail.aspx?listid=410).
[50] Information on the reform can be found on the CPF website: Central Provident Fund Board (2012), 'A Simpler CPF LIFE', news release, 5 March (http://mycpf.cpf.gov.sg/CPF/Templates/SubPage_PrinterFriendly_Template.aspx?NRMODE=Published&NRORIGINALURL=%2FCPF%2FNews%2FNews-Release%2FCOS_Speech-A-Simpler-CPFLIFE.ht&NRNODEGUID=%7B07D5676C-5ED3-4336-9E4F-AC1AB64FBFA6%7D&NRCACHEHINT=Guest).

- Third, regulators have tried to provide better information to consumers on their pension entitlements and future pension benefits, to give consumers a holistic view of their retirement prospects. For example:
  - the Australian Securities and Investments Commission offers a tool called the 'Retirement Planner', which allows individuals to gauge their incomes from Pillars I and II and understand the impact of different investment options on superannuation fund size. A 'Superannuation calculator' calculates the likely size of an individual's pension pot and has a focus on administrative costs—reflecting an awareness of high fund charges;
  - the Irish Pensions Authority also provides a 'Pensions Calculator', which enables individuals to calculate the contributions they need to make to reach a target retirement pension fund;
  - Denmark has a number of tools:
    - the PensionsInfo, which is an online portal that summarises all pension and life insurance entitlements from all providers);
    - the Pensions Overview, which requires providers to inform individuals regularly about aspects of their pension such as their contributions and their return on investment;
    - a cost calculation tool called Omkostningsmåler, with which individuals can gauge their future expected pension costs;
    - a pensions calculator (Pensionsmåler), which allows consumers to calculate their projected pension and replacement rate.
  - in the Netherlands a 'dashboard' tool informs individuals about their pension entitlements, which may have been accrued by different pension funds over their working lifetime. The tool has proven to be a major source of advice and guidance, and has been used by more than 3m users at least once. Although it is difficult to judge the success of such initiatives, self-reported measures of financial awareness provide some indication that the service is perceived to be successful.

4.4 Consumer preferences

Consumer preferences towards retirement products can be shaped by various factors, which are discussed in detail below. While it is difficult to assess fully the magnitude of their impact on consumer choice, the determining factors do vary significantly across countries and can therefore help explain some of the differences in choices. Moreover, while it is not possible to define the preferences of an entire country with regard to retirement products, this section attempts to highlight some of the more dominant trends in each country. Much of the evidence presented is based on commentary.

4.4.1 Choice between flexibility versus security

The defining characteristic of annuity products is that they provide protection against longevity risk. They therefore appeal more to consumers who are either risk-averse and/or optimistic about living longer than average. On the other hand, annuities provide less flexibility in comparison to other retirement products. The relative importance of these two factors—flexibility and security—will be one of the key determinants of the choice between an annuity and other products.

Pensioners in countries with high annuitisation rates (Switzerland, Denmark and the Netherlands) tend to exhibit a higher degree of risk aversion. This is based on commentary from regulators and trade associations, as well as consumer surveys. A recent study by Allianz Suisse showed strong risk aversion among Swiss investors. Despite persistently low interest rates, many savers deliberately choose annuities for the insurance against longevity risk.[51]

On the other hand, in countries such as the USA, Canada and Australia, where there is a strong culture of DIY investing, annuitisation rates are very low. During interviews conducted for this study, there was an explicit reference to people's desire to have control over their funds. According to a consumer survey from the Netherlands, that desire may grow if one's pension fund is underperforming. In particular, the survey found a negative correlation between desire for flexibility and satisfaction with the pension scheme.[52]

An additional issue is the need to fund housing costs—for example, paying off a mortgage or conducting home improvements. Evidence from Australia shows that a significant proportion of those taking lump-sum payments use the money for this purpose. Evidence from the FCA's own consumer research would suggest that this is less common in the UK, and that paying off a mortgage is often a trigger for retirement planning, rather than the other way around.

4.4.2 Bequest motives

One of the disadvantages of a lifetime annuity is the fact that the owner cannot transfer any funds to their survivors. While cultural factors may play a role in one's preferences over bequests, arguably the most important factor is the inheritance tax (see Table 4.4). The importance of bequests has motivated the design of products, including lifetime annuities in Singapore that provide a portion of the assets as a bequest (depending on the lifespan of the member). CPF Life, the main annuity provider in Singapore, originally provided four products, which differed in the trade-off made between bequests and monthly payments. Following feedback from its clients, CPF Life dropped the plan that consisted of the highest monthly payouts coupled with zero bequests. This had been unpopular, chosen by only 3% of members, reflecting the strong bequest culture.

[51] Allianz (2014), 'Pensions: low risk despite low interest rates / Altersvorsorge: Wenig Risikobereitschaft trotz tiefer Zinsen (original)', 9 April (https://www.allianz.ch/public/de/ueber_uns/media_newsroom/medienmitteilungen/medienmitteilungen/2014/09.04.14_vorsorgestudie.html).

[52] Visser, J. and Maarten, de P. (2013), 'Research results in the context of consumer pension needs / Onderzoeksresultaten in het kader van consumentenbehoeften pensioenen (original)', June (https://www.verzekeraars.nl/verzekeringsbranche/dossiers/pensioenen/Documents/PensioenenConsumentenonderzoek.pdf).

Table 4.4 Inheritance tax across countries

Country	Inheritance tax
Australia	No inheritance tax for retirement funds
New Zealand	No inheritance tax
USA	In the USA, there are estate taxes at the federal level and, in many cases, also at the state level (which vary considerably). At the federal level, the tax-exempt amount is currently US$5,340,000. After this deduction, a tax rate of 40% applies. Assets passed to spouses are not taxable
Canada	There is no inheritance tax in Canada. However, the estate of the deceased is viewed as a sale and taxed as income
Ireland	An approved retirement fund/approved minimum retirement fund is not subject to inheritance tax if the fund is passed onto a spouse. In other circumstances, the fund will be subject to inheritance tax
Switzerland	The inheritance tax system is very fragmented, with regulations varying by canton. Spouses and registered partners do not have to pay any tax, all other groups face a progressive tax in most cantons, varying by degree of relation
Denmark	Up to DKK268,900 tax-free but then 15% for family members and up to 36.25% for heirs who are not immediate relations
Netherlands	The inheritance tax rate varies by degree of relation and value of the estate. Up to €117,214 it is 10% for partners and children, 18% for grandchildren and other relatives, and 30% for all other named beneficiaries. Above that amount the rates rise to 20%, 36% and 40%, respectively
Singapore	No inheritance tax
Chile	Pension funds are considered assets and, as such, are taxed up to 25%
UK	Inheritance tax varies according to the method of disbursement. Lump-sum payments of the balance are currently taxed at 55%; if the balance is paid as a pension to a dependant it counts as taxable income.

Source: Oxera.

4.4.3 Risk–return trade-off

Academic research[53] has found that the low-risk nature of lifetime annuities may not be optimal for younger retirees, as they have a higher risk tolerance (e.g. they may be able to return to work if the risk plays out on the downside) and therefore prefer a different risk–return trade-off (e.g. invest in riskier assets in the hope of higher returns). Given higher risk thresholds, younger retirees (e.g. under 70) may be rational in avoiding lifetime annuities and choosing income drawdown products that allow investment in riskier assets in the earlier years of retirement.

Preferences for riskier assets by younger retirees may suggest that less mature pension systems may see lower demand for lifetime annuities than more mature systems, as the average age of retirees with significant pension pots is younger in the former, less mature systems.

4.5 Consumer perceptions

Another important driver of demand for annuities is the perceived value-for-money assessment. In part, consumers' perceptions are shaped by personal experiences, particularly where these experiences interact with certain behavioural biases. Consumers are often subject to 'availability' bias, causing them to extrapolate incorrectly from a few observations in their personal experience when assessing risk, leading them to assign less weight to statistical information. As shown in Table 3.9, in most countries, the money's-worth ratios

[53] See, for example, Brown, J. (1999), 'Private pensions, mortality risk, and the decision to annuitize', NBER Working Paper No. 7191.

are high. Yet many consumers may not understand or correctly interpret such estimates, or even have access to them, and therefore what really matters is their perception of whether an annuity is a worthwhile product.

However, it is important to note that the assessments of money's-worth ratios, which effectively compare relatively competitively priced annuities with the returns of the underlying assets, represent only one way in which value for money can be considered—there are also other ways. First of all, the perception of value for money will depend on whether consumers access the more competitive rates. If consumers do not shop around (e.g. by purchasing an annuity from their current pension provider) they risk purchasing annuities with lower value for money than the more competitive products offered by alternative providers. Perceptions of value for money are also affected by the low rates of return provided by annuities, due to the low rates of return of the underlying investments (typically government debt). This suggests perceptions being affected either by different preferences regarding risk and return (see section 4.4.3), or perceptions arising from comparisons of products in terms of investment returns, which may not be appropriate (see section 4.5.1 on 'framing').

In some countries, such as New Zealand, Australia and the USA, annuities are seen to be poor value-for-money products, partly due to the taxation and benefit system—notably in New Zealand, where annuities have been taxed more heavily than investments. In Switzerland, however, annuities provided are perceived as a good deal due to the minimum conversion factor for lower retirement incomes, which is currently set at 6.8% of accumulated balances, fixed in nominal terms. However, the average in the market is approximately 6.0% to 6.1%, and many pension funds are moving towards rates of 5.5%. At present in the UK, a broadly equivalent joint life pension annuity for a person aged 65 on the open market has a conversion rate of about 5.7%.[54] Despite this, perceptions on value for money are distinctly different in Switzerland and the UK. Consumer research in the UK suggests that consumers see annuities as 'poor value for money' and, at worst, a 'rip off'; although these consumers were often unable to explain precisely why.[55]

In Chile, the regulator has sought to address perceptions by instituting a system of electronic quotations designed to facilitate comparison of pension products. The system provides each pensioner with complete and comparable information about annuity and planned withdrawal offers, via a platform that connects pension funds and life insurance companies.[56] This way, consumers are able to judge for themselves the value of annuities relative to other products. It appears to have been beneficial for consumers, leading to a contraction in the spread of money's-worth ratios over time, with associated stronger price competition. Final consumer selections have been highly correlated with the ranking of the quotes provided by the SCOMP system.[57]

4.5.1 Framing

Researchers have identified a framing problem for annuities if they are framed as an investment product, rather than an insurance product that ensures

[54] Based on the Annuity Rates Table provided by the *Financial Times* on 28 July 2014 (http://www.ft.com/personal-finance/annuity-table).
[55] Ignition House (2014), 'Post-budget at retirement market – qualitative consumer research' (http://www.nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Post-Budget-At-Retirement-Market-Qualitative-Consumer-Research,PDF.pdf).
[56] Information from SCOMP website (http://www.scomp.cl/que-es).
[57] *Sistema de Consultas y Ofertas de Monto de Pension*, government electronic quotations system.

consumption throughout life. A field experiment in the USA tested the hypothesis that reduced levels of annuity demand were due to the fact that people saw them as an investment product (with low returns) rather than as an insurance product that ensured consumption.[58] The study found that 72% of respondents preferred a life annuity over a savings account when the choice was framed in terms of consumption; only 21% of respondents preferred it when the choice was framed in terms of investment features.

This could be an issue if retirees consider annuities alongside investment products, in terms of expected returns. The bias would be expected to produce different outcomes if consumers were examining their various sources of income for consumption throughout their future life, which would place greater emphasis on security of consumption. This may motivate the need for systems that provide retirees with a perspective on how much income they are likely to have over their life expectancy given various options.

On the other hand, in Switzerland, framing may be responsible for the high degree of annuitisation.[59] Occupational pension benefits were traditionally framed as annuities and many contributors to the system were not even aware of the sum of money they had accumulated, simply the approximate amount of the monthly payments.

These observations have important implications for the design of policy with reference to the UK. In particular, regulators can potentially affect the demand for a particular product by influencing the way in which information is disclosed. If, for example, the regulator demands that disclosure documents for retirement products emphasise the insurance aspect of the product, this may encourage more sales of annuity products.

4.6 Consumer behaviour

As with many financial services products, consumers are subject to certain behaviours when purchasing a retirement product. Academic researchers have identified a number of possible consumer 'biases' that could explain the 'annuity puzzle', regarding why the demand for lifetime annuities is below what might be expected from rational consumers in many, but not all, countries.[60] These biases may be linked to specific observations from the ten countries.

However, these biases are not the sole driver of the outcomes observed—there may be other 'rational' incentives behind a certain choice. For example, a pensioner may want a large payment up front, not because of impatience but because they want to pay back an outstanding debt, thus saving money on interest payments. A simple observation of outcomes cannot reveal the relative magnitude of these factors.

[58] Brown, J., Kling J., Mullainathan, S. and Wrobel, M. (2008), 'Why don't people insure late-life consumption? A framing explanation of the under-annuitization puzzle', *American Economic Review*, **98**:2, pp. 304–9. Participants were presented with annuity products and an accompanying text which described different potential scenarios. One set of participants were presented with these products in an investment frame, which emphasised the depersonalised return on an account by using words such as 'invest' and 'earnings', describing periods in terms of years, mentioning the value of the initial investment (US$100,000 in every case), and alluding to the account value. The group was presented these products in a consumption frame, meaning that they were told how much each product would ultimately allow its purchaser to consume and for how long, using words such as 'spend' and 'payment', describing periods in terms of the purchaser's age, and never alluding to an account or its value.

[59] Bütler, M. and Staubli, S. (2010) 'Payouts in Switzerland: explaining developments in annuitisation', Pension Research Council Working Paper No. 2010-23.

[60] See, for example, Brown, J. (2007), 'Rational and behavioural perspectives on the role of annuities in retirement planning', NBER Working Paper No. 13537; and Hu, W. and Scott, J. (2007), 'Behavioral obstacles in the annuity market', *Financial Analysts Journal*, **63**:6, pp. 71–82.

A selection of the most relevant observations is provided below (with framing also being relevant, as discussed in section 4.5.1 above).

4.6.1 Inertia and default options

Complex products and information-heavy products often overwhelm consumers, who resort to taking no action rather than committing themselves to any course of action. This kind of inertia reinforces the choice of default options. Certain systems have a predetermined default choice that consumers have to actively opt out of at the accumulation and decumulation stages. Research from behavioural economics has shown that the presence of such defaults significantly biases the choice for the default product.[61] Research on the choice of DC plans in the USA has shown that this effect is especially strong for people with low levels of financial literacy.[62]

The choice of default options may also be driven by other factors such as cultural norms or the cost of opting out of the default. In Switzerland, most pension schemes provide an annuity as the default option, and allow for a partial or full lump-sum payment as an alternative. Furthermore, lump sums must be requested three years before, and where joint life annuities are the default option, each worker would also need their spouse’s signature in order to convert their money into a lump sum. Such administrative frictions make opting for lump sums more cumbersome and may serve to disincentivise them as an option.

By contrast, in Denmark, there is no in-built default option in occupational pension schemes. However, Oxera’s interview partners confirmed the presence of a ‘social default’ to annuitise a large fraction of retirement savings. This has its roots in the history of the schemes and is also strongly encouraged by the design of the tax system. Similarly, in the UK, even after removal of the requirement to annuitise by age 75 in 2011, annuitisation has remained the de facto default for the majority of retirees.

While in Australia retirees are required to make choices regarding their funds, there is a clear tendency for people to choose account-based drawdown options, which essentially involves leaving the funds in the MySuper account. This would appear to be a de facto default option in this case.

Table 4.5 below provides a summary of actual default options, and de facto default options for each country, and comments on the potential impact on consumer choices.

[61] Thaler, R. and Benartzi, S. (2004), ‘Save more tomorrow: using behavioural economics to increase employee saving’, *Journal of Political Economy*, 112:S1, pp. S164–87.
[62] Agnew, J. and Szykman, L. (2005), ‘Asset allocation and information overload: the influence of information display, asset choice, and investor experience’, *The Journal of Behavioral Finance*, **6**:2, pp. 57–70.

Table 4.5 Default options

Country	Default options	Estimated impact/other commentary
Australia	De facto default likely to be account-based income stream	Not clear, although account-based income streams are the most common option except for lump sums
New Zealand	De facto default to leave funds in account	KiwiSaver scheme has only just begun paying out, so results should be treated with caution.
USA	Typical default is to transfer funds from 401(k) to an individual retirement account	Transfer to an individual retirement account is common, although role of default is not clear
Canada	Depends on scheme. Registered retirement income funds are default option for registered retirement savings plans. Annuities may be default for occupational DC schemes	Transferring from registered retirement income funds to registered retirement savings plans is standard option, although it is not clear what role is played by default option
Ireland	No clear default; although if individuals take a salary and service-dependent lump sum they are obligated to buy an annuity	–
Switzerland	Lifetime annuity	Apparently has a large impact on outcomes, due to high rate of annuitisation
Denmark	No default option, although lifetime annuity seen as standard	Demand for term annuities is significant, despite lifetime annuity being the standard option
Netherlands	Mandatory annuitisation	–
Singapore	Mandatory annuitisation	Past experience, where drawdown was the default and was very common, may provide evidence of the importance of the default option. Changing the default to mandatory annuitisation was largely driven by a concern about solving the growing problem of longevity insurance
Chile	No clear default	–
UK	Annuity	Annuities are currently the default, but this may change with the recent reforms

Source: Oxera.

Given the clear importance of default options in the accumulation phase (e.g. auto-enrolment), it would seem appropriate to assume that default options are important in the decumulation phase, and the evidence from the ten countries considered does not conflict with this assumption.

4.6.2 Myopia (short-sightedness) and hyperbolic discounting

Researchers report that consumers may have a strong preference for consumption today rather than in the future, despite also conducting other activities (such as saving) that suggest otherwise.[63] This inconsistent discounting could be linked to consumers preferring to receive payments earlier. It may also lead to consumers spending down their pension pot too quickly and not being able to support themselves through retirement.

There are numerous examples of consumers preferring to receive up-front payments, although the link with myopic behaviour is not clear-cut. For example:

[63] Consumers may also be underestimating their life expectancy.

- demand for fixed-term annuities is strong in Denmark, which allows retirees to receive more of the funds earlier on. This could reflect myopic behaviour, although there are also more rational reasons for demanding access to funds earlier in retirement (as described above, for example for home improvements) and Danish retirees cannot access lump-sum payments from their funds;
- a popular product in Chile is a combination of an income drawdown and a deferred annuity, whereby the monthly income from the planned withdrawal cannot exceed 200%, or be less than 100%, of the amount of the deferred annuity.[64] As with Denmark, this may reflect myopic behaviour, although it may also reflect lack of access to lump sums;
- lump-sum payments are very popular in several countries (notably Ireland, Canada and the UK), which may reflect myopic behaviour. But it should be noted that there are strong tax incentives in the UK and Ireland to take tax-free lump sums;
- research has reported that underestimating life expectancy is a significant factor in New Zealand, and is something which was seen as a contributing factor for making annuities appear less good value for money.[65] The New Zealand pension system is in an early stage of development, however, and low demand for annuities may be expected in this context.

4.6.3 Loss aversion

The term loss aversion refers to people's tendency to avoid losses rather than pursue the equivalent gains. In the context of retirement products, consumers tend to dislike lifetime annuities because they do not want to 'leave the money to the insurance company' in the event of their dying early. This may be particularly salient for those savers who are actively involved in their pension funds during the accumulation period and do not want to relinquish control of their savings pot at retirement.[66]

In many countries there is strong demand for annuities with a guaranteed payment period: even if the primary recipient and their spouse die, an income is paid to the estate for the guaranteed period. For example, in Canada, a life annuity with a minimum guaranteed payment period of ten years is a popular product, which points to consumer concern about dying earlier than expected and losing the assets to the insurance company.

More generally, some commentators (notably in the USA) have suggested that lifetime annuities may run counter to the usual consumer understanding of 'insurance', which pays out in bad circumstances (rather than resulting in the loss of assets).

Loss aversion is an issue that may be effectively addressed through product design, such as including guaranteed payment periods with lifetime annuities (which is essentially a combination of a term annuity with a lifetime annuity). There is no clear evidence that loss aversion is a stronger factor in some markets than others.

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[64] Information sourced from AFP Cuprum website (http://www.cuprum.cl/webpublico/Retiro_Programado/RentaTemporal.aspx).

[65] O'Connell, A. (2012), 'Underestimating lifespans? Why longevity risk exists in retirement planning and superannuation policy', Ph. D thesis, Victoria University of Wellington.

[66] Gazzale, R. and Walker, L. (2009), 'Behavioral biases in annuity choice – an experiment', Williams College Economics Department Working Paper Series.

Framing of choices also affects the decisions consumers make, as discussed above.

4.7 Financial literacy and disclosure

One of the concerns raised by policymakers has been the lack of consumer engagement and financial literacy in relation to retirement products. The FCA's consumer research has shown that consumers find pensions 'daunting and complex.' Qualitative focus-group research commissioned by the FCA found that most respondents had a low level of understanding of the UK's pension system, with many individuals 'completely unaware' of what an annuity was.[67] Individuals reportedly find pensions 'difficult to understand and confusing,' which can lead to disengagement.[68] A report by the Irish financial regulator found that while individuals were reportedly good at managing their money, they tended to have little knowledge about more complex financial products such as pensions.[69] This is of particular concern in systems where consumers have access to a wider set of products, especially products that do not insure against longevity risk.

Furthermore, policymakers have expressed concerns about the disclosure information provided to pensioners. In Australia, the Financial System Inquiry concluded that disclosure tended to be complex and lengthy, and often did not facilitate greater consumer understanding.[70]

There have been several attempts to improve financial literacy and disclosure of pension products. Those campaigns have been led by: the regulators, trade associations (Denmark), or the private sector (USA). However, it must be noted that, while these initiatives have been successful in raising awareness of financial products, it is difficult to draw firm conclusions on their success in improving consumer outcomes due to the absence of ex-post research/analysis.

Denmark is a notable example of successful initiatives to improve financial literacy. Advice and information websites run by the government and by pension companies (see section 4.3 for a description of some of the tools used) provide simple and comprehensive material regarding pensions, and offer advice on how best to manage pension funds. The positive results of the availability of these websites is especially evident in Pillars II and III, where 66% and 74% of consumers, respectively, are satisfied with the level of information available. This level of information provides a foundation for a high level of trust in the pension system: 77% and 72%, respectively, are confident that they will receive their forecast pension. Satisfaction remains high regarding Pillar II and III pensions, with only 29% of people finding it easy to access information about the Pillar I state pension.[71] Leading this attempt to provide information are insurance and pension providers, which operated 70% of initiatives regarding transparency and

[67] Ignition House (2014), 'Post-budget at retirement market – qualitative consumer research' (http://www.nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Post-Budget-At-Retirement-Market-Qualitative-Consumer-Research,PDF.pdf).
[68] Ignition House (2014), 'Post-budget at retirement market – qualitative consumer research' (http://www.nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Post-Budget-At-Retirement-Market-Qualitative-Consumer-Research,PDF.pdf).
[69] Information provided by the Irish Association of Pension Funds.
[70] Commonwealth of Australia (2014), 'Financial System Inquiry: Interim Report', 15 July, pp. 3–56.
[71] Danmarks Statistik (2013), 'Knowledge of and attitudes to private and public pension schemes / Viden om og holdning til private og offentlige pensionsordninger (original)', July (http://www.forsikringogpension.dk/temaer/evaluering-af-aabenhed-og-gennemsigtighed/Documents/Viden%20om%20og%20holdning%20til%20private%20og%20offentlige%20pensionsordninger%20-%20Danmarks%20Statistik.pdf).

openness. Government and regulatory sources provided only 10% of initiatives over the same time period.[72]

In New Zealand, a successful campaign to improve financial literacy has been led by the regulator. In 1995, the government established the Retirement Commission, now known as the Commission for Financial Literacy and Retirement Income. One of its main activities is running the ‘sorted.org.nz’ website, which provides support and information on all aspects of financial planning.[73] The website is widely perceived as being successful in aiding consumers in their financial choices. It is widely used, which is attributed to it being user-friendly and easy to read, having been advertised heavily, and offering personalisation capabilities.[74] New Zealanders rank very highly on financial awareness internationally. The 2013 Financial Knowledge and Behaviour survey shows that banks provide the most financial advice, with only 15% using financial advisers.[75] Positive responses to questions such as ‘I believe that I am personally responsible for my financial future’ and ‘It is important to shop around to get the best deal for financial products and services such as insurance, loans and credit cards’ have all increased in recent years.

In Singapore, the government and CPF run websites to assist individuals planning for retirement that aim to explain retirement options in plain English. The government has also recently sought to improve financial literacy via its national programme, MoneySENSE.

Other initiatives have been less successful. The Chilean regulator supplies consumers with quarterly reports throughout the accumulation and decumulation phases, comparing fund cost and performance, in an attempt to improve consumer financial literacy and facilitate access to information.[76] However, it is reported that only about half of the recipient individuals read them.[77] The introduction of the price comparison platform in Chile has been arguably more successful in helping consumers find the best product and facilitating effective competition.

In Ireland, The Central Bank implemented the 2012 Consumer Protection Code, setting out a number of rules relating to disclosure and seeking to make all material information and charges clear to consumers. However, it is unclear that the Code has had a significant tangible impact on consumer awareness.

Overall, there are several important lessons that can be drawn from successful initiatives in Denmark and New Zealand:

[72] Towers Watson (2013), ‘Evaluation of Openness and Transparency Initiatives of the Danish Insurance Association’, October, p. 8 (http://www.forsikringogpension.dk/Documents/Webpjecer/Evaluation%20of%20openness%20and%20transparency%20initiatives%20pb%20Web.pdf).

[73] See ‘Sorted’ website (https://www.sorted.org.nz/).

[74] A 2006 Pensions Policy Institute report describes several lessons for the UK from ‘Sorted’. See Pensions Policy Institute (2006), ‘Lessons from New Zealand’s Retirement Commission for UK policy on financial awareness and advice’ (http://www.pensionspolicyinstitute.org.uk/publications/reports/lessons-from-new-zealands-retirement-commission-for-uk-policy-on-financial-awareness-and-advice).

[75] Colmar Brunton (2013), ‘Financial Knowledge And Behaviour Survey’, 11 June (http://www.cflri.org.nz/sites/default/files/docs/FL-2013-Fin-Knowledge-Behaviour-Survey-11-06-2013.pdf).

[76] Superintendencia de Pensiones, ‘Cartola cuatrimestral (original) / Cartola quarterly’, (http://www.safp.cl/portal/orientacion/580/w3-article-3007.html).

[77] Krasnokutskaya, E. and Todd, P. (2009), ‘Investor behavior and fund performance under a privatized retirement accounts system: evidence from Chile’, University of Michigan Retirement Research Center Working Paper WP2009-209.

- information on product features and costs needs to be accessible to consumers. The presentation has to be user-friendly and the language straightforward so that people are able to understand;
- disclosure and financial literacy on retirement products should start from the accumulation phase. In particular, it is helpful if members are informed of their pension entitlements during the accumulation period;
- transparency of costs from pension providers is important to enhance trust in the system;
- consumers are more likely to engage with their retirement planning if the information comes in a personalised format (e.g. telling consumers how much more they can earn at retirement if they increase their contribution level by 1%).

5 Drivers of consumer decision-making

The cross-country analysis described above identifies a range of supply-side (see section 3) and demand-side (see section 4) factors that drive consumer decision-making. These range from regulations that simply dictate which products consumers can choose from, taxation that can provide strong incentives for certain products, to aspects of consumer preferences where the impact on decision-making is less clear-cut.

This section presents a framework for assessing the relative importance of different factors in determining outcomes. Ideally, there would be comparable consumer research across the ten countries, investigating the importance that consumers attach to different factors—for example, through stated-preference research. However, this cross-country consumer research is not available, so instead a more qualitative assessment has been required, based on the trends that have been observed across the different countries.

Oxera's approach has been to assess: the extent to which consumer decisions in the different countries can be explained by the more tangible factors (including regulation, taxation and the importance of DC funds); and the extent to which these trends can be explained by less tangible factors (such as differences in consumer preferences, perceptions and behaviour). This approach provides a basis for identifying the countries (and therefore also the relevant regulatory regimes) where the impact of less tangible factors is more evident, after taking into account other important drivers of consumer choices.

5.1 Impact of more tangible factors on consumer decision-making

The more tangible factors that drive consumer decision-making with regard to retirement income products include:

- the relative importance of DC pension pots in securing retirement income—in particular, the relative importance of DC pension income for total retirement income (as discussed in sections 3.1 and section 4.1);
- the impact of regulation—which can control the range of choices that consumers have at retirement (as summarised in section 3.2);
- the impact of taxation—which is a common tool for influencing the decisions that consumers make between products (as summarised in section 3.3).

As an initial assessment, the expected impact of these factors on consumer demand for lifetime annuities is considered (see Table 5.1). In each case, a judgement has been made about whether the different factors incentivise consumers to choose a lifetime annuity product. For example, the relative importance of DC pension schemes has a 'low' impact on incentives in New Zealand, as DC pension pots are currently small and will rarely provide the main source of retirement income. Regulation has a 'high' impact in Switzerland, as annuities are the default option and regulated annuity rates are attractive. The overall impact of the more tangible factors is summarised in the penultimate column, 'Tangible factors'. This can then be compared with the estimated take-up of the product.

This analysis is inherently comparative in nature, to provide the basis for assessing whether demand for annuities is higher in a specific country relative to other countries, after taking account of the more tangible factors.

Table 5.1 Tangible factors driving demand for lifetime annuities

Country	Relative importance of DC pension	Regulation	Taxation	Tangible factors	Take-up
Australia	Medium	Low	Low/neutral	Medium/low	<1%
New Zealand	Low	Low	Low	Very low	Zero
USA	Medium	Low	Neutral	Medium/low	9%
Canada	Low	Medium	Neutral	Medium/low	30%*
Ireland	Medium	Medium/high	Neutral	Medium	30%**
Switzerland	High	High	Low/neutral	Medium/high	80%
Denmark	Very high	High	Neutral	High	52%***
Netherlands	Low	Very high	Neutral	High, but low DC use	100%
Singapore	Very high	Very high	Neutral	Very high	100%
Chile	Very high	High	Neutral	High	60%
UK (current)	Medium	High	Neutral	High	c.75%****

Notes: * Lack of data for Canada—30% used here based on the volume of the annuities market. ** 30% estimate for Ireland supported by the Pensions Authority as a reasonable estimate, given lack of data. *** Data for Denmark is for lifetime annuities only, not fixed-term annuities. **** UK estimate based on ABI data for Q2 2014.[78] UK sales for annuities have fallen sharply in recent months, according to the ABI data.

Source: Summary of analysis in section 3, for illustrative purposes.

The rate of take-up of lifetime annuities can often be explained by a holistic assessment of the tangible factors—although there are some notable deviations. These are summarised by country below.

- **Australia**: demand for lifetime annuities is lower than might be expected. While regulation provides no incentive to annuitise, and means-tested benefits (classified as 'taxation') can provide some discouragement, DC pension pots do appear to have a reasonable (and growing) degree of significance in terms of providing retirement income. It is possible that the need for annuitisation will increase as the age of those with significant pension pots increases (as the scheme matures)—there is a growing regulatory debate about the need for lifetime annuities.

- **New Zealand**: there are no annuities in New Zealand, although very low demand can be expected given the immaturity of the pension system and the negative treatment of annuities by the tax system. However, as the scheme matures, one would expect lifetime annuities to become available.

- **USA**: there is some demand for annuities in the USA, although it may be judged to be lower than expected. DC pension funds can be significant for many retirees. The USA provides an example of a system with few notable incentives or disincentives for choosing annuities, and therefore the low rate of annuity take-up is instructive for assessing underlying demand.

- **Canada**: in most circumstances, DC pension funds are transferred to a programmed withdrawal Life Income Fund or an annuity, meaning that

[78] ABI statistics Q2 2014: 'The UK retirement income market post-Budget', September 2014. Available: https://www.abi.org.uk/~/media/Files/Documents/Publications/Public/2014/Pensions/ABI%20statistics%20Q2%202014%20The%20UK%20retirement%20income%20market%20post%20Budget.pdf

regulation is a significant driver of demand. However, DC funds are not that important (yet) in terms of delivering retirement income, as most retirees will have DB pension entitlements. The level of annuitisation is therefore broadly in line with expectations, and is not a primary issue of regulatory concern.

- **Ireland**: regulation in Ireland requires many people to take annuities, at least in part, due to the minimum income requirement. However, the tax-free lump sum is likely to be a sensible option for many retirees, and most take it. This would suggest that underlying demand for annuities is rather weak in Ireland.
- **Switzerland**: demand for lifetime annuities is higher than might be expected in Switzerland; while regulation provides for a favourable annuity rate for smaller pension pots, the actual average rate is not that much higher than in other countries, as explored in section 3.5.1. The taxation system can actually provide incentives for individuals to take lump sums. The annuitisation rate of around 80% is therefore high relative to other countries.
- **Denmark**: demand for term annuities is strong in Denmark, with regulation being the main limiting factor. This suggests that demand for lifetime annuities is relatively weak, given the importance of DC pension funds.
- **Netherlands**: annuities are mandatory, so underlying consumer demand is not clear.
- **Singapore**: annuities are mandatory, so underlying consumer demand is not clear.
- **Chile**: there are programmed withdrawals, but demand for annuities remains strong. This may be as expected, given the importance of DC pension funds for securing retirement incomes.

Demand for lifetime annuities in countries without incentives to push people to buy lifetime annuities (e.g. Australia, New Zealand, the USA) is notably low, which may have implications for the UK. It is also notable, however, that demand for lifetime annuities is very strong in Switzerland, despite the fact that people have the option of taking a lump sum. The differences between countries also reflect other, less tangible factors relating to consumer preferences, perceptions and behaviour.

5.2 Role of consumer preferences, perceptions and behaviour

In cases where demand for annuities differs from what might be expected as a result of the more tangible factors described above, the next step is to consider the extent to which this difference can be linked to aspects of consumer perception and behaviour identified in the ten countries examined. These less tangible aspects are classified as:

- preferences—such as particular needs for flexibility (e.g. for medical expenses), preferences for leaving bequests or expenditure on housing costs;
- perceptions—attitudes towards value for money and the framing of retirement income products (e.g. as either investments or income for consumption) as explored in section 4.5;
- behaviour—role of default options, myopic preferences and other elements of consumer behaviour.

The sections of the accompanying country analysis report present commentary on drivers of consumer choices, as provided by publicly available material and taken from discussions with national regulators, trade associations and other organisations. From this commentary, key issues for consumer preferences, perceptions and behaviour can be summarised (see Table 5.2).

Table 5.2 Consumers preferences, perceptions and behaviour with regard to lifetime annuities

Country	Annuity demand	Preferences	Perceptions	Behaviour
Australia	Lower than expected?	Lump sums for housing costs	Annuities offer poor value for money Retirement choices tend to be perceived in terms of returns	Funds in account as default option
New Zealand	Lower than expected?	Lump sums for housing costs, holidays	–	Funds in account as default option
USA	Lower than expected?	Flexibility for medical expenses, although some annuities provide flexibility	Annuities offer poor value for money Retirement choices tend to be perceived in terms of returns	Individual retirement accounts are a de facto default option (rather than annuities)
Canada	As expected?	–	–	–
Ireland	Lower than expected?	–	Annuities offer poor value for money	–
Switzerland	Higher than expected	–	Annuities offer good value for money Retirement choices presented in terms of consumption	Annuities are default option
Denmark	Lower than expected?	Demand for up-front capital and bequests?	–	–
Netherlands	Mandatory	–	–	–
Singapore	Mandatory	–	–	–
Chile	As expected?	Preferences for bequests are met by annuities as well as drawdown products	–	–
UK	As expected?	Strong demand for lump sums	Annuities offer poor value for money	–

Source: Summary of analysis in the accompanying country analysis report, for illustrative purposes.

From this qualitative assessment of possible factors affecting demand for lifetime annuities, the following observations can be made.

- The lack of lifetime annuity products providing features desired by consumers (consumer preferences) may explain demand outcomes to some extent. For example, the demand for term annuities in Denmark may reflect lifetime annuities not providing desired up-front capital, while lifetime annuity policy features in Chile may meet consumer preferences there.
- Perceptions about value for money may be important, at least in explaining the difference between countries like Australia and the USA versus Switzerland. This can be affected by the 'framing' of outcomes in terms of future consumption (Switzerland) or investment returns (to some extent, the USA and Australia).

- Default options certainly appear to be influential, including firm default options (such as in Switzerland) and de facto default options (which are the typical choice for most people). For example, regulatory debate in Australia has focused on how a default option of some form of annuitisation can be introduced, as the implicit default option currently appears to be to keep the funds in the account. Keeping funds in a similar type of investment vehicle after retirement (as before retirement) does appear to be a de facto default option in a number of pension systems (e.g. in Australia, New Zealand, the USA and Canada), which may have implications for developments in the UK.

This evidence provides support for the possible effectiveness of regulation that addresses these issues regarding consumer preferences, perceptions and behaviour (see section 6 for further discussion). There are other aspects of consumer preferences, perceptions and behaviour, that may be significant (as identified in section 4), but Oxera's study has provided the clearest support for the three observations above.

This evidence has implications for how the UK market might develop with a system that has fewer incentives to choose lifetime annuities. If other income drawdown products are de facto default options (as in the USA), and annuities are perceived to provide poor value for money (which is understood to be the case in the UK, as well as in many other countries) and there is significant demand for lump sums, then demand for lifetime annuities could be very weak. Alternatively, default options and financial incentives to choose annuities (as in Switzerland), could significantly change patterns of demand.

6 Developments in regulation

Regulatory debate in most of the ten countries continues to focus primarily on the accumulation phase, as relatively immature schemes have few individuals who rely, to a large extent, on income derived from their DC pension funds. The primary drivers of changes in regulation relating to the accumulation phase include concerns about:

- low levels of participation and/or low levels of contributions;
- fees and charges limiting the accumulation of assets, and consequently deterring participation/contributions;
- the long-term sustainability of pension schemes, which is primarily an issue for DB pension schemes.

Only in the more mature systems is the decumulation phase currently at the top of the regulatory agenda (e.g. in Denmark and Switzerland), but this situation is changing as all of the systems continue to mature. As the number of people retiring with DC pension funds worth many multiples of their earnings increases, debate on how people should use these funds increases—for example, in Australia, where debate is growing over how MySuper funds could finance reliable sources of retirement income.

Table 6.1 lists the key policy objectives in the regulatory debate and the corresponding policy initiatives which attempted to achieve those objectives.

Table 6.1 Regulatory initiatives to influence consumer decisions

Objective	Initiative	Assessment
Improve engagement and understanding of financial products	Financial literacy campaigns (Denmark, New Zealand)	Increased levels of financial awareness, consumer satisfaction and trust in the system
Help people to find the best deals	Price comparison website (Chile)	Reduction in dispersion of money's worth ratios for annuity products
Ensure that financial advice is available to people	Provision of financial advice and guidance by the regulator (Denmark)	Increased level of consumer satisfaction and trust in the system
Improve quality of independent financial advice	Banning of commissions and dealing with mis-selling (Australia)	No results due to recent implementation
Improve pensioners' information on their pension entitlement	• pensions dashboard (Netherlands) • PensionsInfo (Denmark)	Consumers report high levels of satisfaction with the level of information available
Reduce reliance on the state	Introduce mandatory DC pension system with a minimum income at retirement (Singapore)	Retirement income is entirely reliant on DC pension pot
Help pensioners to choose appropriate products in terms of risk	• restrict the number of products offered (Chile) • regulate the annuitisation rate (Switzerland)	No evidence of impact on consumer outcomes
Control fees and charges	Impose cap on charges (Chile)	No evidence of impact on consumer outcomes

Source: Oxera.

While there is concern about how people would use pension funds if given full flexibility, there is little research into either stated or revealed preferences. Australia has surveyed how people use their lump sums, and the findings do not show any evidence that pensioners use their lump sum for consumption purposes. However, to understand their decisions in full, it would be necessary to match them with the financial circumstances of the individual, to understand how they would affect their income (and hence consumption) throughout retirement.

There is no overall trend among the ten countries towards or away from liberalisation (with regard to consumer choice at the point of retirement). For example:

- Denmark, which has a tightly controlled and mature DC pension system, further tightened regulations in 2013 by limiting the amount that could be put towards term annuities and deterring lump sums through taxation. Singapore has also tightened regulations;
- Switzerland, on the other hand, introduced legislation requiring all pension funds to offer at least 25% lump sums;
- Australia, which has few restrictions on how pension funds can be used, is considering using regulation to encourage certain outcomes—for example, by introducing default options to encourage some annuitisation, particularly for later life (e.g. a deferred annuity starting at age 85).

None of the ten countries have seen a significant liberalisation of policy that would be comparable to that now expected in the UK. In the UK, greater consumer choice would affect many people with significant existing DC pension pots, which may be many multiples of their earnings. Effective increases in consumer choice in other countries have tended to happen slowly over time as pension pots have grown (e.g. Australia, with the growth of compulsory savings in superannuation schemes), or only affected wealthier individuals (e.g. ARFs in Ireland) or the self-employed (e.g. lighter treatment of personal pensions in Canada and other countries).

It is therefore important to recognise that, while on the one hand, the experience of other countries is informative in terms of the drivers of consumer decisions, on the other hand, other countries do not provide comparable examples in terms of how consumers react to significant liberalisation. For example, the experience of other countries informs how consumers may make choices given the freedom to choose between different options, but it provides little information about how people may adopt certain preferences, perceptions or behaviours where a previously evolved 'de facto default option' does not exist.

6.1 Role of regulation in influencing consumer decisions

While the main role of regulation in most of the ten countries is to set the framework of options available to consumers—either through directly mandating the products that can be purchased using (tax-preferred) DC pension funds or by setting tax rates to favour certain products—regulators have also adopted policies aimed at influencing consumer decisions without restricting choice.

As explained above, regulators have introduced interesting initiatives to improve financial literacy and consumer decision-making in general. Initiatives to improve shopping around perhaps have the clearest indicators of impact, such as the price comparison tool introduced in Chile, which is believed to have helped bring down fees. Countries that introduced initiatives to improve understanding about financial products have managed to raise the level of financial literacy (Denmark and New Zealand); however, it is difficult to draw firm conclusions on their success in improving consumer outcomes due to the absence of ex-post research/analysis.

On the other hand, the countries do not provide clear success stories in terms of delivering bespoke guidance and advice to the majority of pensions. Independent financial advice remains something that typically only higher-net-wealth individuals have access to. In countries where the majority of people have a wide range of choice (e.g. Australia, the USA), there is concern about consumers making 'bad' choices. Some regulators have acted to clarify that 'independent' financial advisers are not influenced by commission payments (e.g. Australia, Denmark), but the affordability of bespoke advice to the majority of retirees remains an issue.

The analysis described in section 5 identified three areas of consumer preferences, perceptions and behaviour that appear to have a significant impact on consumer choices at retirement, based on the cross-country analysis. These provide evidence on how regulation can influence decisions.

- Demand for lifetime annuities benefits from products having features (such as some degree of flexibility or death benefits) that fit with consumer preferences—for example, the regulated products in Chile (e.g. allowing for bequests).
- Default options, which appear to have a significant impact on outcomes, such as in Switzerland where annuities are the default option.
- Framing perceptions of retirement income products in terms of future consumption, rather than investment returns, which may explain differences in attitudes in countries such as Switzerland versus the USA.

There are several theories that may explain certain consumer choices, but further evidence is needed to identify the likely drivers of consumer behaviour in the report's sample countries. Concern about consumers making myopic decisions or avoiding longevity insurance due to 'loss aversion' (for example) appears to be based mainly on anecdotal evidence and does not seem to be well supported by empirical evidence. The evidence that does exist on how people spend their lumps sums, for example from Australia, shows that a significant proportion is spent on repaying debt and home improvements, which consumers may prefer over annuities for entirely rational reasons.

7 Summary of key lessons

The experience of the ten countries examined provides some useful observations on how consumers make choices at retirement, the current understanding of what affects those choices, and how markets have developed under different regulatory regimes.

- Regulation of retirement products in the ten countries examined is typically based on encouraging pensioners to ensure a lifelong income through their DC pension schemes, so that people are not over-reliant on the state for support. For example, in Singapore, the state replaced the state pension with a DC pension system and mandated a minimum sum that workers need to set aside at retirement. Furthermore, policy-making is driven by the belief that it is in people's best interest to have a stable income at retirement that will continue until death.

- Consumer preferences for differing levels of funds at different points in their lives can have a significant impact on demand, and may reflect rational choices based on preferences and actual requirements. Consumers may demand upfront lump sums to pay off debt or for home improvements, for example, and there can be demand for lump sums at the end of life to provide bequests. Regulation that accommodates specific consumer preferences (eg, for bequests) can help to bolster demand for products that insure against longevity risk and provide lifetime incomes (e.g. the provision of annuities with bequest, features of products which combine programmed withdrawals with life annuities in Chile).

- The evidence suggests that the role of regulatory and tax incentives is stronfly linked ot the varied demand for annuities across countries (see, for example, Australia and the United States in particular). While this is the case, there is little empirical evidence to suggest that in countries with low annuitisation rates, pensioners tend to use up the majority of their pension pots early in retirement (and then run out of funds). Evidence from Australia shows that many people who receive their pension fund as a lump sum, use the money to repay their mortgage or fund home improvements. Furthermore, there is little evidence among the countries studied to show that pensioners under-spend their retirement pots.

- While product innovation in the annuities market can help better meet consumer preferences, additional complexity may have an adverse impact on consumers. First, complex products may bring about an increase in charges and fees that consumers are not aware of. Second, product complexity may make it more difficult to compare across products. This potential outcome highlights the importance of guidance or financial advice for pensioners.

- None of the countries have experienced policy changes directly comparable to the UK. In countries with similar levels of retiree freedom, the accumulation phase has been carried out with the future choices already in place. The market dynamics (on both the demand and the supply side) *may* be different, particularly at the transition, as in the UK market there will be no developed cultural norms relating to a liberalised decumulation phase. This means that there are limits to which certain experiences in other countries can be directly applied to assess how the UK market will develop going forward.

- Default options can be expected to have a significant impact on consumer outcomes, which can either be firm default options (e.g. annuities in Switzerland) or de facto default options (e.g. the shift from 401(k) to individual retirement account schemes in the USA). Regulators consider whether default options are likely to be the best option for most people. Even in countries with significant innovation (such as the USA), there appears to be a tendency for most people to continue with the main options available.

- Regulators have introduced interesting initiatives to improve financial literacy and consumer decision-making in general. Initiatives to improve shopping around perhaps provide the clearest indicators of impact, such as the price comparison tool introduced in Chile, which is believed to have helped bring down fees. Countries that introduced initiatives to improve understanding about financial products have managed to raise the level of financial literacy (Denmark and New Zealand). However, a lack of ex-post research/analysis into consumer decision-making means that firm conclusions about the success of financial literacy programmes are difficult to draw
- The countries examined do not provide clear success stories in terms of delivering bespoke guidance and advice for the majority of pensions. Independent financial advice remains something that typically only higher-net-wealth individuals have access to. In countries where the majority of people have a wide range of choice (e.g. Australia, the USA), there is concern about consumers making ‘bad’ choices, either in terms of the products they choose or between different suppliers of the same type of product. Although there is some anecdotal evidence of mis-selling (eg, in Australia), there is little evidence on the incidence of ‘bad’ outcomes in general. Regulators tend to focus on preventing bad outcomes rather than ensuring consumers find the 'right' outcome for their individual circumstances
- More generally, there is no clear consensus on what a ‘good’ outcome is, as this depends on an individual’s circumstances. Therefore, outcomes would need to be compared with the individual’s financial position (e.g. other sources of income, need for capital). Regulators tend to focus on preventing bad outcomes rather than ensuring consumers find the 'right' outcome for their individual circumstances

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Canada

Canadian Association of Pension Supervisory Authorities

Canadian Life and Health Insurance Association

Financial Institutions Commission, British Columbia

Financial Services Commission of Ontario

Office of the Superintendent of Financial Institutions

Chile

Superintendencia de Pensiones (Chilean pensions supervisor)

Denmark

Danish Financial Supervisory Authority

Forsikring og pension (the Danish insurance association)

Ireland

Irish Association of Pension Funds

The Pensions Authority

Netherlands

Verbond van Verzekaars (Dutch insurance association)

New Zealand

Financial Markets Authority

Workplace Savings NZ

Singapore

Monetary Authority of Singapore

Switzerland

Oberaufsichtskommission Berufliche Vorsorge (supervisory commission of occupational pensions)

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