

The Vanguard Retirement Outlook: Assessing the retirement readiness of UK baby boomers

Introduction

The global retirement landscape is evolving and the UK is no exception. Our research reveals a concerning trend: over half of those expected to retire in the next five years are not retirement ready. This means many people in this generation will struggle to sustain their current lifestyle in retirement, and most may not even achieve a moderate standard of living. Middle-income earners are particularly exposed.

As populations age, government retirement benefits are under increasing pressure. While the UK state pension has become more generous in recent years, it alone is insufficient to support the standard of living many are accustomed to during their working years. At the same time, the shift from defined benefit (DB) to defined contribution (DC) workplace pension schemes means that individuals will increasingly bear the risk for their retirements.

The Vanguard Retirement Outlook explores this changing landscape and its implications for UK workers. Using the Vanguard Retirement Readiness Model, we estimate retirement readiness for UK baby boomers in different income groups.

Preparing for retirement is complex and many individuals lack confidence in financial planning. In the face of this uncertainty, our analysis highlights actionable steps people can take to improve their preparedness for retirement. For future generations, saving from an early age can make a significant difference to achieving retirement readiness.

However, the responsibility for a secure retirement should not fall solely on individuals. Employers and policymakers can do more to promote the importance of saving into a pension, cultivate sound investment practices from a young age and foster a culture that values investing. This report provides a baseline assessment of retirement readiness, providing a benchmark for future progress.

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Key takeaways

1. Many UK baby boomers are not retirement ready

Only 40% to 50% of UK baby boomers are retirement ready. The remainder are expected to fall short of the savings they need to sustain their current lifestyle in retirement or achieve a moderate standard of living.

2. Retirement readiness varies by spending goal

There are two main types of spending goals in the pension industry: relative and absolute. A relative spending goal is tied to an individual's pre-retirement income. An absolute spending goal is based on achieving a specific living standard in retirement, measured in pounds.

3. Middle-income baby boomers are at greatest risk

Most high-income baby boomers have sufficient savings for a comfortable retirement, regardless of the spending measure. Middle-income baby boomers are at the greatest risk, with most not projected to meet their spending goal under either measure. Most low-income workers can meet their relative spending goal due to reliance on the state pension, but many fall short of even the minimum absolute retirement living standard.

4. Workplace pension schemes are essential

UK baby boomers with access to DB pension schemes are twice as likely to reach their retirement savings goals as those without. For younger generations with little or no access to DB schemes, the need for DC schemes to step in and fill the gap left is clear.

5. Several strategies can improve retirement readiness

Baby boomers have several levers at their disposal that can improve their likelihood of retirement readiness. These include releasing home equity, delaying retirement by a couple of years and spending a bit less in retirement. For younger generations, the importance of saving more throughout their working lives cannot be overstated.

The retirement landscape: Longer lives, greater uncertainty

Population structures are changing in the UK and around the globe, with a rising proportion of older people. Currently, around 19% of the UK's population is aged over 65. By the end of the century, this is expected to increase to nearly a third¹. Broadly speaking, British people are living longer, healthier lives. For many, this means more time spent in retirement.

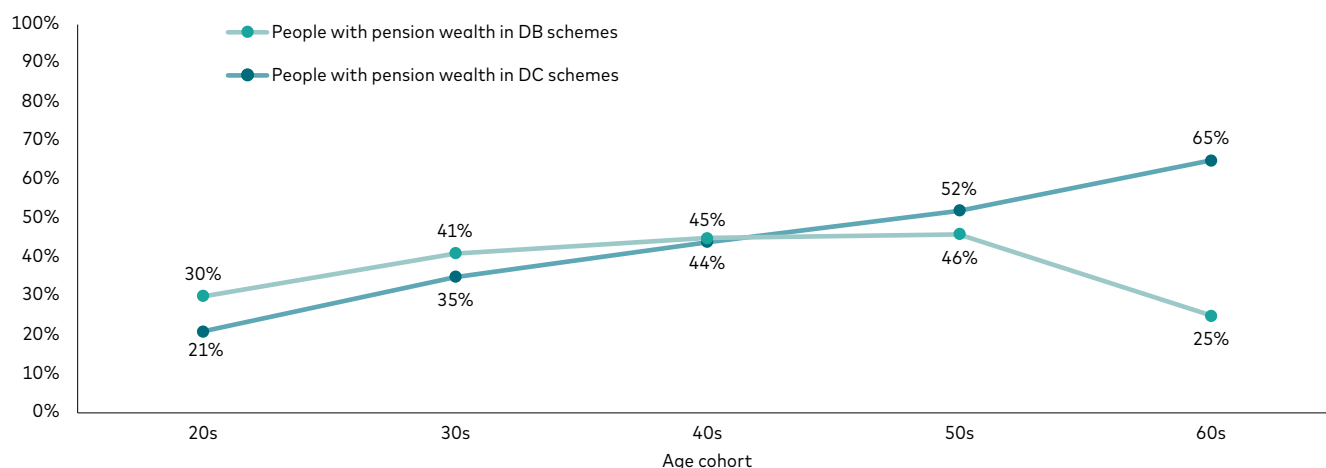
These longer retirements will require greater funding. The quality of retirement is in part influenced by factors and systemic risks beyond an individual's control. While the state pension has become more generous in recent years thanks to the triple lock², it alone will not be enough to provide the standard of living many are accustomed to during their working life. A combination of the state pension, workplace pension schemes and, for those who are able, private savings will be crucial to build sufficient

retirement savings. At the same time, changes to the UK pension system are placing increased responsibility on the individual to plan for their retirement.

While older workers are more likely to have DB pension schemes, DC schemes are now most common for workers in their 20s and 30s, as data from the Office for National Statistics' (ONS) Wealth and Assets Survey (WAS) shows (**Figure 1**). The success of automatic enrolment (AE) in driving participation in private sector DC pensions has been a key factor behind this shift. Introduced in 2012 through a phased approach, AE requires employers to automatically enrol eligible workers³ into a workplace pension scheme. As at April 2019, the phased introduction was completed, with minimum contributions increased to 8% of qualifying earnings⁴, of which a minimum of 3% must come from the employer.

FIGURE 1

Older individuals are more likely to have pension wealth in DB schemes, while for younger generations DC schemes are increasingly prevalent



Notes: This chart shows the percentage of individuals with wealth held in DB pension schemes versus the percentage of individuals with wealth held in DC pension schemes by age cohort for a sample of 30,828 individuals. This includes individuals with just DB pension schemes, those with just DC pension schemes and those who hold both. Pensions in payment are assumed to come from a DB source. For further detail on definitions of DB and DC wealth, please see the Appendix.

Source: ONS WAS Round 7, Vanguard calculations.

¹ Data from the United Nations Population Prospects (2024).

² The triple lock is a policy that ensures the UK state pension increases each year by the highest of three measures: inflation, average earnings growth or 2.5%.

³ Eligible employees are those aged 22 to 66 (the current state pension age) who live in the UK and earn above the AE earnings trigger, a threshold that is reviewed annually and currently sits at £10,000.

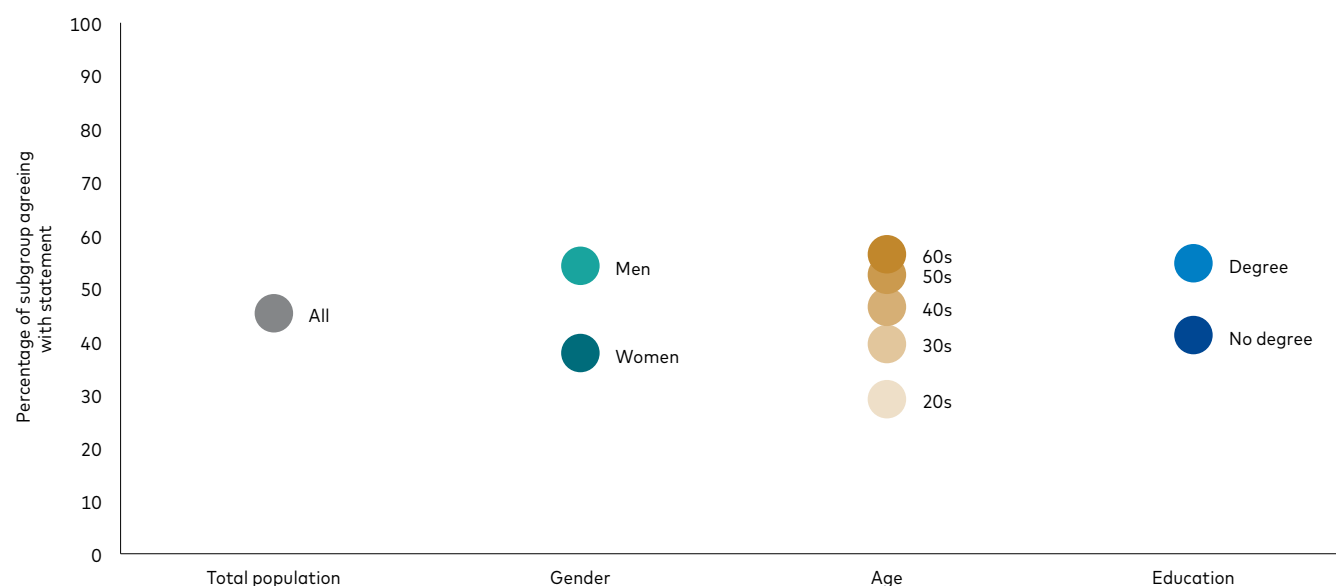
⁴ Qualifying earnings are defined by the lower earnings limit (LEL) and upper earnings limit (UEL). As of 2024-25 these limits were £6,240 and £50,270, respectively. The Department for Work and Pensions provides detailed information and guides on AE. For example, see [Automatic enrolment into a workplace pension – key facts](#).

Greater participation in DC pension schemes is a positive step. However, the shift from DB to DC schemes is transferring the risk of a secure retirement from employers to employees. Under DB schemes, the employer bears the risk of guaranteeing an income throughout retirement. In contrast, DC schemes place much more of the decision-making on individuals. Although most individuals save in default funds⁵, there are still many decisions to make including how much to contribute beyond the minimum and, since the introduction of pensions freedoms in 2015, how to spend their retirement savings once they retire. This shift is compounded by the uncertainties that come with living longer lives. British workers now face a range of challenges – from estimating how long they will live and work for to determining how much they need for retirement – all of which make financial planning more complex.

This uncertainty is reflected in low levels of confidence when it comes to preparing for retirement. In our sample of respondents to the WAS, less than 50% of individuals agreed with the statement *"I feel I understand enough about pensions to make decisions about saving for retirement"* (**Figure 2**). Women, young people and those without a degree were even less likely to agree with the statement. Worryingly, only 56% of individuals in their 60s, the generation we focus on in this analysis and for whom retirement is a less distant prospect, agreed with the statement. Individuals are facing greater challenges when it comes to saving for retirement, and many are not prepared to do so. This highlights the need for more guidance and advice when it comes to planning for retirement.

FIGURE 2
Pension understanding is low across the population

Proportion of subgroup in agreement with the statement *"I feel I understand enough about pensions to make decisions about saving for retirement"*



Notes: The chart represents the percentage of people who responded, "strongly agree" or "agree" to the statement "I feel I understand enough about pensions to make decisions about saving for retirement". To focus on those of working age, the sample is comprised of 15,145 individuals aged 20 and above.

Source: ONS WAS Round 7, Vanguard calculations.

Relative versus absolute retirement spending needs

To keep things simple, we assess retirement readiness by comparing two values – the resources individuals need in retirement, and the resources they are projected to have by the time they retire. We test two spending needs benchmarks: target replacement rates (TRRs), which are expressed in relative terms as a percentage of pre-retirement income (**Figure 3**); and the Pensions and Lifetime Savings Association's (PLSA's) Retirement Living Standards (RLS), which are a set of absolute spending targets regardless of pre-retirement income (**Figure 4**).

FIGURE 3
Relative spending measure: Target replacement rates and associated gross earnings bands

Gross earnings band	Target replacement rate
Less than £17,700	86%
£17,700 to £32,599	76%
£32,600 to £46,599	72%
£46,600 to £74,599	62%
Over £74,600	50%

Notes: This table shows the gross earnings bands and associated target replacement rates originally defined by the Pension Commission in 2004-05 and later updated by the Resolution Foundation for 2024-25 to reflect earnings growth and changes to the personal tax system.

Source: *Pensions: Challenges and Choices. The First Report of the Pensions Commission*, The Pensions Commission, 2004. Broome and Mulheirn. *Perfectly adequate?* Resolution Foundation, 2024.

Established by the Pensions Commission's first report in 2004, the TRRs estimate the share of pre-retirement earnings an individual needs to replace to maintain a similar standard of living as they move into retirement. As shown in **Figure 3**, these relative measures are defined for five earnings bands based on gross employment income before retirement⁶.

Replacement rates are widely used in the financial services industry to estimate spending needs in retirement. What constitutes an adequate retirement can vary significantly from one individual to another and can also change as individuals age⁷. That said, sustaining a similar lifestyle in retirement to that of working life is a common goal for many, and the relative nature of the replacement rate approach reflects this. TRRs make it easier to understand changes in income needs around retirement. However, replacement rates can be complex to explain and rely on the definition of final income, which may not capture changes in work patterns later in life. Additionally, our results suggest TRRs may not accurately reflect retirement income needs for everyone. Most low-income workers are projected to meet their replacement rate, but in many cases the resulting retirement income equates to a low standard of living.

To address these limitations, we also test a set of absolute spending measures: the PLSA's Retirement Living Standards. The standards outline three levels of expenditure needs in retirement: minimum – 'covers all your needs, with some left over for fun', moderate – 'more financial security and flexibility' and comfortable – 'more financial freedom and some luxuries'⁸. The standards give an absolute income measure for retirement for both single individuals and couples, regardless of pre-retirement income. While these pound figures are easier to understand and can help individuals think practically about retirement, they may not fully reflect people's unique needs and circumstances.

⁶ The replacement rates defined by the Pensions Commission ranged from 80% for the lowest earners, to 50% for the highest. To reflect earnings growth and changes to the personal tax system since the inception of the TRRs in 2004-05, the Resolution Foundation updated the earnings bands and replacement rates to 2024-25 values. We use these updated figures in our analysis.

⁷ Crawford et. al. *How does spending change through retirement?* Institute of Fiscal Studies (IFS), 2022.

⁸ For consistency with the TRR approach, which is based on gross employment income, we use the pre-tax annual expenditure measures for a single individual in 2024-25 prices, as estimated by the PLSA, in our analysis. For more information on the Retirement Living Standards, see: Matt Padley, *Retirement Living Standards in the UK in 2023*. Centre for Research in Social Policy, 2024; and [How to estimate likely Retirement Living Standards](#). PLSA, 2023.

FIGURE 4

Absolute spending measure: Estimated annual expenditure figures of the PLSA Retirement Living Standards

Retirement Living Standard	Estimated annual expenditure for single individuals		Estimated annual expenditure for couples	
	Pre-tax	After-tax	Pre-tax	After-tax
Minimum	£14,857	£14,400	£23,000	£22,400
Moderate	£35,982	£31,300	£47,590	£43,100
Comfortable	£50,887	£43,100	£67,464	£59,000

Notes: This table shows the pre- and after-tax annual expenditure estimated by the PLSA for each of the Retirement Living Standards for both single individuals and couples. For consistency with the TRR approach, which is based on gross employment income, we use the PLSA's pre-tax annual expenditure measures in our analysis.

Source: *How to estimate likely Retirement Living Standards*. PLSA, 2023.

Projecting retirement readiness for baby boomers

In this paper, we focus our sample on late-stage UK baby boomers in full-time employment⁹, as they are the most accurate group to assess for retirement readiness due to their proximity to retirement. This allows us to have more certainty about their income, savings and wealth dynamics. We focus on baby boomers who are still employed to assess their financial resources as they near retirement, rather than after they have already started spending them. Consistent with the target replacement rate approach, we categorise individuals into five earnings bands based on their pre-retirement gross income.

The Vanguard Retirement Readiness Model (VRRM) estimates future retirement income, based on a pre-retirement snapshot of the individual's balance sheet, and compares it to expected spending needs.

In addition, the model accounts for uncertainty in market and mortality scenarios. The interaction between these variables is complex and, therefore, the model uses a stochastic approach¹⁰ to simulate 10,000 different lifetime trajectories for each individual. We estimate a person to have adequate retirement savings if they meet their spending goal in 80% of these scenarios. Below are the key inputs, uncertainties and scenarios the model accounts for¹¹:

- **Initial net wealth:** we estimate initial net wealth from the ONS WAS as the sum of net financial wealth, DC wealth and personal pensions wealth for each individual¹². In our baseline scenario we exclude home equity. We also model a hypothetical scenario where individuals access

20% of their net property wealth¹³, for example by downsizing their home, and show the impact this has on retirement readiness.

- **State pension:** we assume all individuals receive the full state pension from the age of 66.
- **Defined benefits:** we use DB annual income as defined in the WAS¹⁴.
- **Pre-retirement income:** we use gross employment income prior to retirement from the WAS as our measure of income for all scenarios tested¹⁵.
- **Asset allocation:** we estimate lifetime asset allocation profiles by analysing financial assets in three components: shares, bonds and cash. As the WAS does not provide data at the asset class level, we estimate asset allocation profiles for all individuals based on the default asset allocations of the largest providers of DC pension plans¹⁶.
- **Market returns:** we leverage a wealth and market return simulation engine that incorporates return forecasts for each asset class from the Vanguard Capital Markets Model (VCMM), based on 10,000 simulations (Davis et al., 2014).
- **Retirement age:** we assume a retirement age of 66 for all workers in the sample, consistent with the current age for receiving the state pension.

⁹ Our sample of baby boomers is comprised of individuals aged 61-64 participating in the ONS WAS (Round 7). We focus on those who report themselves to be in full-time employment, resulting in a sample of 717 individuals.

¹⁰ Instead of assuming fixed input variables, stochastic modelling relies on random variables. This method provides a range of potential outcomes and associated probabilities under different conditions, allowing the model to account for uncertainty.

¹¹ More detail can be found in the Appendix.

¹² Net financial wealth is the sum of the values of formal and informal financial assets (including current and savings accounts, individual savings accounts, investments in stocks and bonds), plus the value of certain assets held in the names of children, plus the value of endowments purchased to repay mortgages, less the value of non-mortgage debt. DC pension wealth is the total value of current defined contribution pension wealth plus the total value of retained rights in DC schemes. Personal pension wealth is the total value of personal pension schemes.

¹³ Net property wealth is defined as the sum of all property values minus the value of all mortgages and amounts owed as a result of equity release.

¹⁴ The source of pensions in payment (whether DB or DC) is not currently collected as a part of the survey. Following the Government Actuary's Department recommendation, we assume that the source of the entire income from pensions in payment is DB.

¹⁵ This measure of income means we do not include additional benefits paid to low-income workers.

¹⁶ See the Appendix for more detail on how asset allocation profiles are calculated.

- **Spending needs in retirement:** as outlined above, we test the model under two different consumption schemes: the TRRs and the PLSA's Retirement Living Standards¹⁷. Both spending measures assume a consistent spending pattern through retirement. Thus, our model estimates workers' ability to meet their spending needs in aggregate over the course of retirement and does not account for extra liquidity needs that an individual may experience in a particular year. The PLSA defines spending goals for single individuals and those in a couple. For individuals in a couple, we assume the spending goal is shared equally for simplicity.

- **Mortality:** we consider a distribution of mortality outcomes, which differ by generational cohorts, based on mortality tables provided by the ONS.

The model delivers two outputs: first, the share of people who are projected to meet their spending needs in retirement; and second, the annual gap or surplus between income and spending needs in retirement¹⁸.

¹⁷ See [How to estimate likely Retirement Living Standards](#). PLSA, 2023.

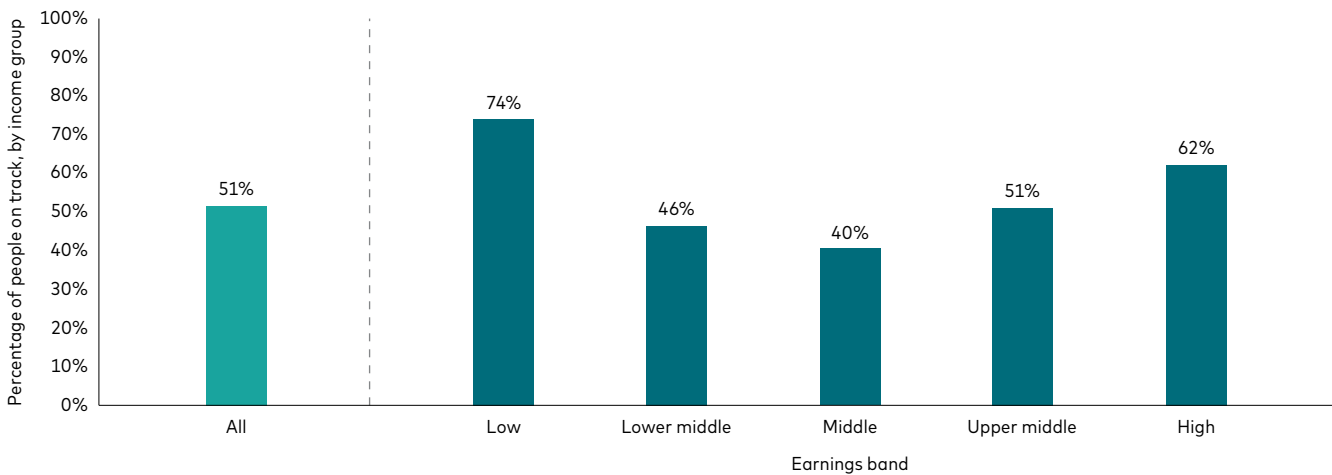
¹⁸ We calculate the sustainable retirement income as the highest annual income that is generated from the state pension, occupational pensions and private savings that can be sustained in 80% of capital market and mortality scenarios. See the Appendix for further detail on the Vanguard Retirement Readiness Model (VRRM).

The retirement outlook varies by income and spending goal

Among UK baby boomers, between 39% and 51% are retirement ready. The remainder are expected to fall short of the savings they need, either to maintain their current lifestyle in retirement or to achieve a moderate standard of living. An important insight from our analysis is that retirement readiness varies with income and the spending measure applied¹⁹.

First, we assess the proportion of individuals on track to meet their target replacement rate (**Figure 5**). As a reminder, this is a relative measure and anchored to a person’s income level prior to retirement. A U-shaped pattern emerges, with both low- and high-income individuals exhibiting higher levels of retirement readiness compared to those in the middle, who are more likely to fall short of their spending goal.

FIGURE 5
With spending goals relative to income, a U-shaped pattern of readiness emerges
Percentage of baby boomers on track to meet their target replacement rate, by income group



Notes: Low-income individuals are full-time workers earning an annual gross salary of less than £17,700, with a target replacement rate of 86%. Lower-middle-income individuals are full-time workers with an annual gross salary between £17,700 and £32,599, aiming for a replacement rate of 76%. Middle-income individuals earn between £32,600 and £46,599 annually and have a target replacement rate of 72%. Upper-middle-income workers earn between £46,600 and £74,599 annually and aim for a replacement rate of 62%. High-income workers, earning more than £74,600 annually, have a target replacement rate of 50%. All earnings band figures are given in 2024-25 prices, as calculated by the Resolution Foundation.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission’s target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation.

¹⁹ Recent research from the Institute of Fiscal Studies (IFS) looking at private sector employees in DC pension schemes finds 57% are projected to have an adequate income as defined by their target replacement rate. The same modelling finds 68% would be able to meet the minimum RLS. In a report revisiting pensions adequacy 20 years after the Pensions Commission, the Resolution Foundation highlights different outcomes for median earners when comparing the two approaches.

The composition of retirement savings matters (**Figure 6**). Low-income retirees primarily rely on state support, with the UK state pension providing an income level that meets or exceeds their estimated spending needs. Lower-middle-income and middle-income workers face the greatest risk, as the income they are projected to receive from the state pension and their retirement savings will not be sufficient to maintain their spending goal, resulting in a spending gap.

Ultimately, the projected flow of income in retirement will be determined by an individual's overall retirement savings, which includes workplace pensions, net property wealth and other forms of private savings and investments. Individuals at the upper end of the income distribution have generally accumulated sufficient savings to sustain their lifestyle in retirement. This is especially true for high-income

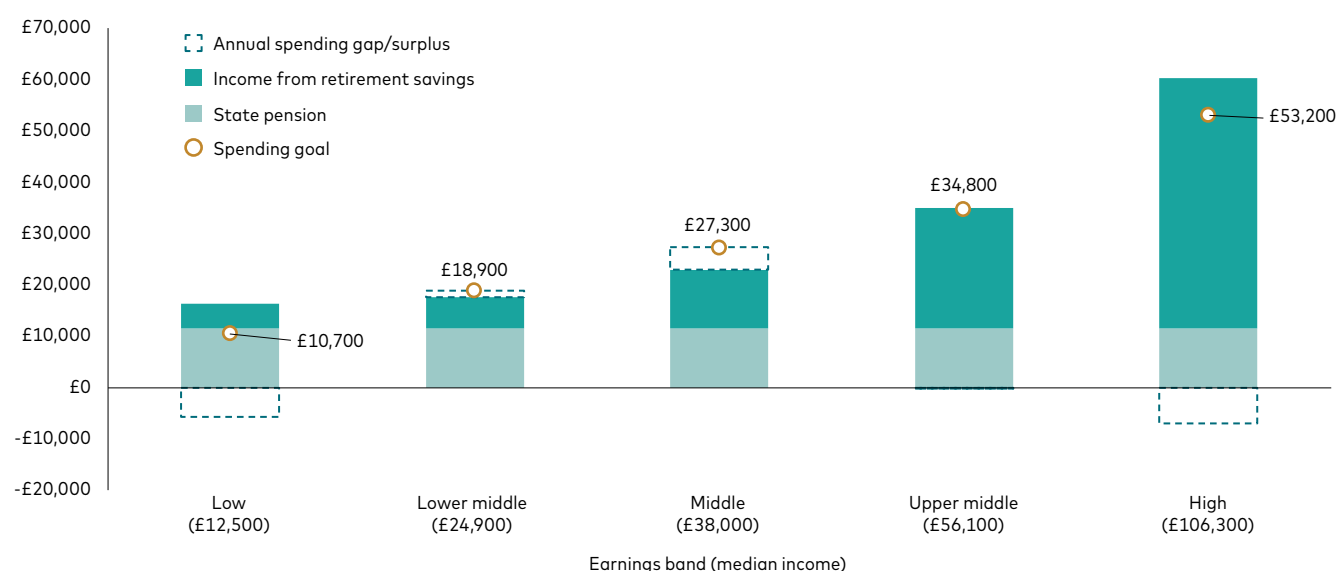
individuals, where the typical high earner has enough wealth to cover their spending goal and have extra savings leftover.

For the median low-income individual, the target replacement rate equates to an annual spending goal of approximately £10,700. Given that the flat state pension provides around £11,500 per year, retirees in this category may also appear to be adequately covered. However, the fundamental question remains: is £10,700 a realistic budget for a dignified retirement? Falling below even the minimum RLS²⁰, this raises concerns about whether the relative spending goal truly reflects retirees' needs for lower-income earners²¹. The replacement rate approach is widely used in the financial services industry, and while suitable for higher earners, this result suggests there is merit in testing other measures of adequacy.

FIGURE 6

Middle earners tend to be falling short, with spending gaps seen for the squeezed middle

Annual spending needs versus spending capacity under target replacement rates approach, by income group



Notes: State pension is assumed to be £11,502 annually and grown in line with inflation, as forecasted by the Vanguard Capital Markets Model (VCM). Income from the retirement pot includes both pension wealth and financial wealth. The median spending goal is calculated using the target replacement rates for each income group. We also show the median income for each income group. Earnings bands are as defined above. A negative spending gap implies the median individual has sufficient retirement income to cover their spending needs, while a spending surplus implies the median individual will not have sufficient income to cover their spending needs in retirement. All figures are in 2024-25 prices and rounded to the nearest hundred.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds updated by the Resolution Foundation.

²⁰ Before tax, the minimum RLS is estimated to be £14,857. For more detail see [How to estimate likely Retirement Living Standards](#), PLSA, 2023.

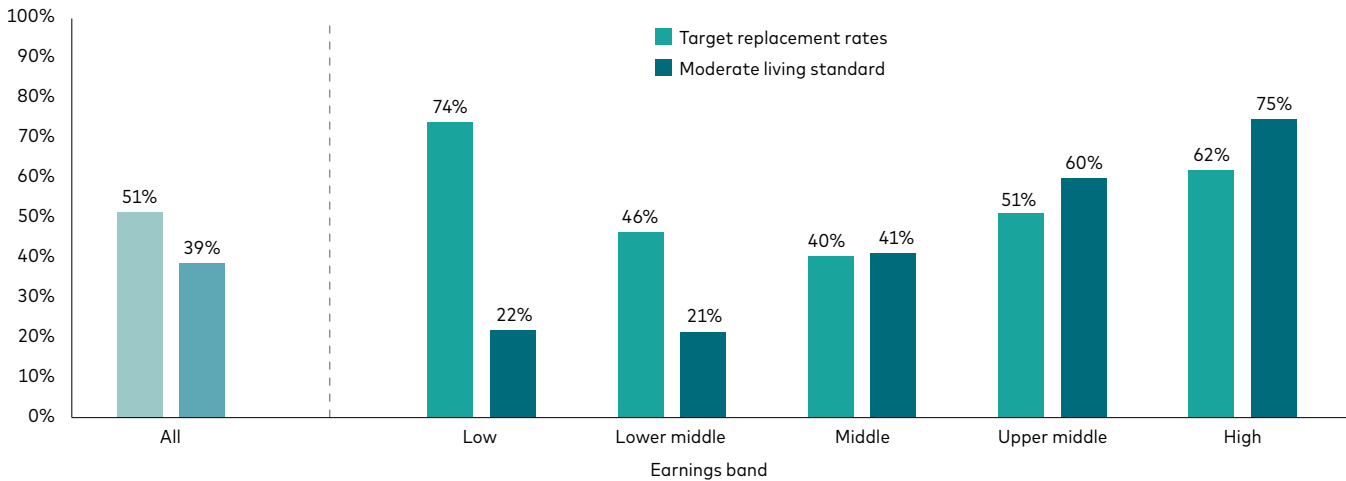
²¹ Research from the Pensions Policy Institute (PPI) also finds those on median and lower earnings will struggle to meet the minimum RLS throughout retirement. See Hurman et al. *What is an adequate retirement income?* The Pensions Policy Institute, 2021.

Assessing retirement readiness using an absolute spending goal paints a very different picture. The outlook for low-income workers is highly dependent on the spending benchmark used. We assess retirement readiness against all three Retirement Living Standards. For simplicity, in **Figure 7** we show the results under the moderate standard²². The percentage of low-income workers on track to meet their spending goal falls dramatically from 74% to 22%. This is unsurprising given the discussion above: fewer individuals end up

classified as retirement ready due to their reliance on the state pension, which is lower than the income level set out by even the minimum RLS.

Middle-income workers face substantial challenges in achieving retirement readiness, no matter which spending goal is considered, with only four in 10 meeting the necessary thresholds. In contrast, high-income workers appear well-prepared for retirement under both spending goals. The proportion on track to meet their spending goal is slightly higher (75%) under this absolute measure than under the relative measure (62%).

FIGURE 7
Estimates of retirement readiness depend greatly on the spending goal
 Percentage of baby boomers on track to meet each spending measure, by income group



Notes: Low-income individuals are full-time workers earning an annual gross salary of less than £17,700, with a target replacement rate of 86%. Lower-middle-income individuals are full-time workers with an annual gross salary between £17,700 and £32,599, aiming for a replacement rate of 76%. Middle-income individuals earn between £32,600 and £46,599 annually and have a target replacement rate of 72%. Upper-middle-income workers earn between £46,600 and £74,599 annually and aim for a replacement rate of 62%. High-income workers, earning more than £74,600 annually, have a target replacement rate of 50%. We also test individuals against a moderate RLS (£35,982 a year of spending for singles, £23,795 for those in a couple).

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation. PLSA calculations of Retirement Living Standards.

²² To be consistent with the target replacement rates approach, which is based on gross employment income, we use pre-tax values for the Retirement Living Standards in our analysis. The pre-tax value of the moderate RLS is estimated to be £35,982 for single individuals and £47,590 for a couple. For individuals who are reported as married or in a civil partnership, we assume their goal to be half of the couple standard. For everybody else, the single standard applies. We also assessed the retirement readiness of UK baby boomers under the minimum and comfortable RLS. The results are shown in the Appendix.

Those with DB wealth are more likely to be retirement ready

Given the structural shift in workplace pensions from DB to DC schemes, this section considers retirement readiness for those with a DB pension, the most common type of workplace pension for the baby boomer generation. While some baby boomers have been affected by the phasing out of DB pension plans, DB wealth remains substantial for this generation. The majority (58%) of our sample have at least some DB wealth, although this varies by income cohort (**Figure 8**).

Individuals with DB pensions are more than twice as likely to meet their target replacement rate than those without (**Figure 9**). Although not shown, we again ran the same analysis under the moderate RLS and find the picture is even more stark, where those with income from DB schemes are four times as likely to meet their spending goal than those without. This result holds across all income cohorts, but the benefit of having a DB pension is most noticeable for lower-middle and middle-income individuals, where the gap in retirement readiness between those with and without a DB pension is largest²³.

FIGURE 8

The likelihood of having a DB scheme varies by income cohort among baby boomers

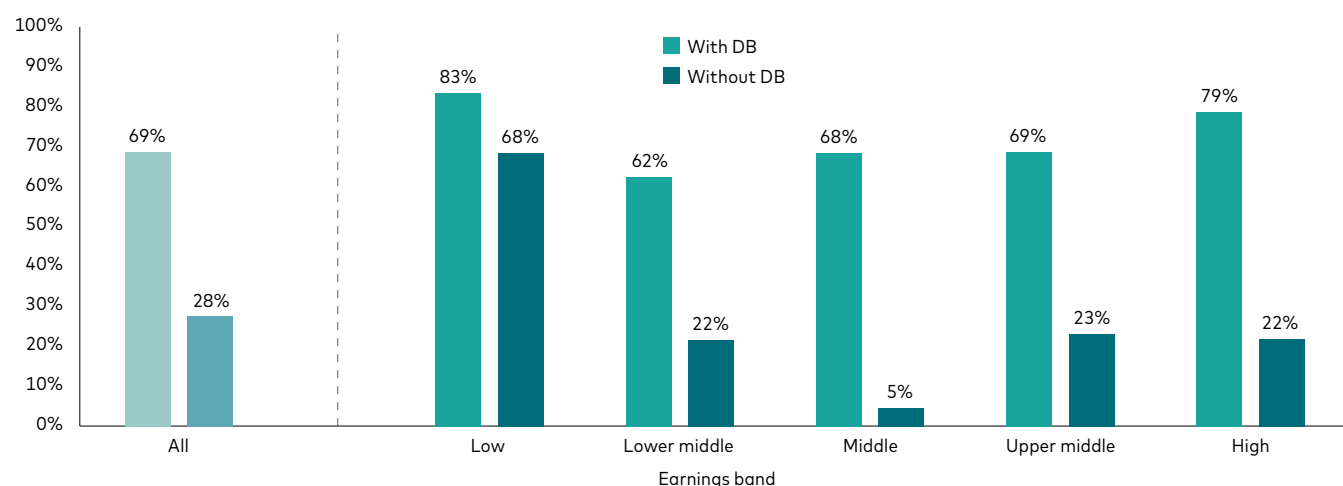
Income band	Low	Lower middle	Middle	Upper middle	High
Proportion with a DB Scheme	38%	61%	56%	61%	71%

Notes: This table shows the proportion of individuals in our sample of baby boomers in full-time employment by income cohort with and without DB pension wealth.
Source: Vanguard calculations, based on data from the ONS WAS (Round 7).

FIGURE 9

The majority of baby boomers with a DB pension are on track to meet their TRR, while most of those without a DB pension are not

The percentage of individuals on track to meet their target replacement rate by DB status



Notes: Low-income individuals are full-time workers earning an annual gross salary of less than £17,700, with a target replacement rate of 86%. Lower-middle-income individuals are full-time workers with an annual gross salary between £17,700 and £32,599, aiming for a replacement rate of 76%. Middle-income individuals earn between £32,600 and £46,599 annually and have a target replacement rate of 72%. Upper-middle-income workers earn between £46,600 and £74,599 annually and aim for a replacement rate of 62%. High-income workers, earning more than £74,600 annually, have a target replacement rate of 50%. We separate individuals into those expected to receive DB income greater than 0, and those not expected to receive any DB income.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rate, with gross earnings band thresholds uprated by the Resolution Foundation.

²³ The PPI similarly find that a significant proportion of people do not achieve adequacy if DB assets are excluded from analysis. See Hurman et al. *What is an adequate retirement income?* The Pensions Policy Institute, 2021.

Further underscoring the support provided to individuals from DB schemes, for those expected to receive DB income, it will comprise approximately half of their projected retirement income across all income cohorts (**Figure 10**). These figures are indicative of the important role that DB pensions play in aiding retirement readiness.

As the retirement system moves away from DB schemes for all but the public sector, the emphasis will shift to DC schemes to ensure younger generations have adequate retirement income. DC pension schemes require more

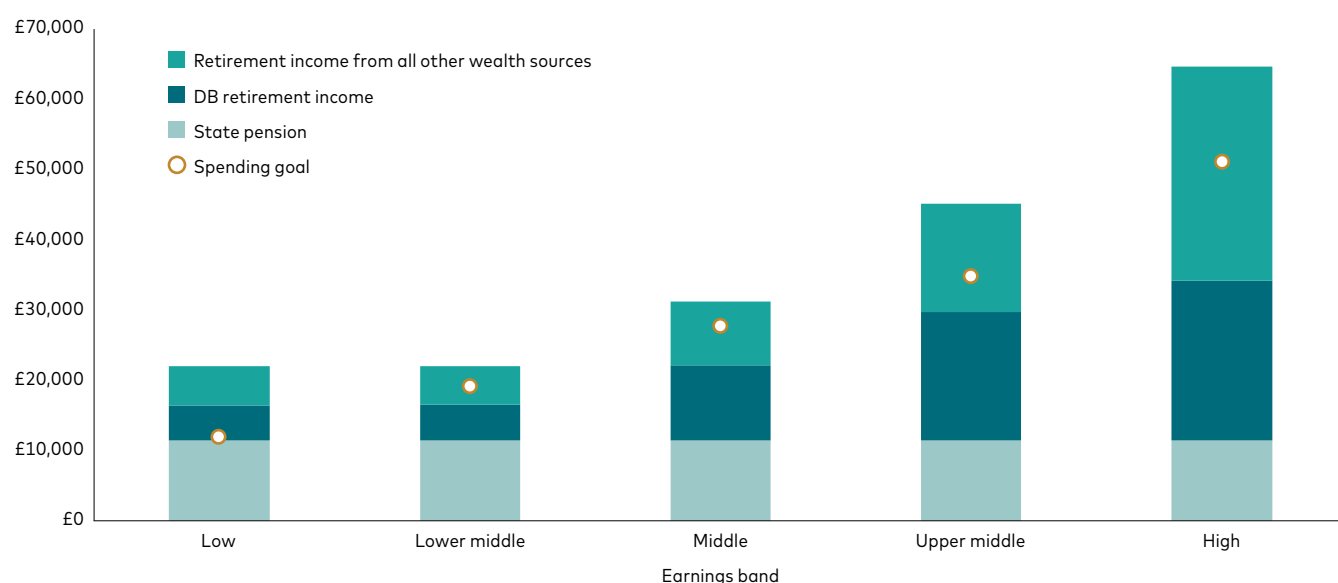
engagement from individuals in making retirement decisions, highlighting the need for advice and guidance in retirement planning.

Equally crucial is a continued focus on improving DC plan design. Our equivalent US research – (Tan et. al, 2023²⁴) – finds that younger generations in the US are expected to fare better than baby boomers as they benefit from greater access to DC plans and stronger plan design. In the UK, policymakers and industry providers have the tools to help individuals better save for their futures and ensure younger generations are set up for retirement success.

FIGURE 10

For those with a DB scheme, DB wealth makes up around half of projected retirement income

Annual spending needs versus spending capacity under target replacement rates approach, by income group for individuals with DB wealth



Notes: State pension is assumed to be £11,502 annually and grown in line with inflation, as forecasted by the VCMM. Income from the retirement pot includes both pension wealth and financial wealth. The median spending goal is calculated using the target replacement rates for each income group. We only include individuals expected to receive DB income.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rate, with gross earnings band thresholds uprated by the Resolution Foundation.

²⁴ Tan et. al. *The Vanguard Retirement Outlook: A national perspective on retirement readiness*. Vanguard, 2023.

Professional financial advice can boost retirement readiness

Highlighting the importance of financial advice in retirement planning, a higher proportion of wealthier baby boomers who sought professional financial advice in the past year are retirement ready. To identify likely candidates for advice, we focus on individuals with net wealth²⁵ of £250,000 or more. We assess these individuals against their target replacement rate and the moderate RLS. Given the higher wealth of this sample, we also compare results against the comfortable RLS.

Our findings show that a greater proportion of those who sought advice have the resources to meet their spending goals under each measure,

compared to those who did not seek advice. However, we acknowledge that those with higher wealth are both more likely to seek advice and more likely to be on track to meet their spending goals. Therefore, we interpret this result with caution, as the direction of causality cannot be determined. That said, Vanguard research²⁶ shows that financial advice can add considerable value, although the exact amount depends on an individual's unique circumstances. Helping individuals to think through their financial goals, recognising opportunities to take advantage of tax-efficient strategies and providing peace of mind²⁷ are examples of how advice may add value when it comes to planning for retirement.

FIGURE 11

Wealthy individuals who sought professional financial advice have a greater likelihood of being retirement ready

Subgroup	Percentage on track to meet their target replacement rate	Percentage on track to meet their moderate RLS	Percentage on track to meet their comfortable RLS
Advised	83%	90%	83%
Not advised	74%	83%	68%

Notes: This analysis focuses on baby boomers with net wealth greater than £250,000, resulting in a sample of 134 individuals. Net wealth is the sum of DC pension, personal pension and net financial wealth as defined by the ONS. 'Advised' denotes individuals who reported seeking professional financial advice in the past 12 months, 'Not advised' represents the results for those who did not report seeking advice. Median net wealth of the sample is £433,000, while median income is £61,000.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation. PLSA calculations of Retirement Living Standards.

²⁵ Net wealth includes DC pension, personal pension and net financial wealth, as defined by the ONS.

²⁶ Bloore, Giorgobiana, Rawlins and Zorn. *The Value of Personalised Advice in the UK*. Vanguard, 2025.

²⁷ Costa and Henshaw. *Quantifying the Investor's View on the Value of Human and Robo-Advice*. Vanguard, 2022.

Levers that improve the likelihood of retirement readiness

Our baseline analysis assumes that retirees depend solely on the state pension and financial assets such as DB pensions and DC savings and that they retire at age 66. If we assume that they can draw on home equity, delay retirement or reset their planned spending goal, readiness improves. We stress-test three VRRM assumptions to understand how changes can brighten the retirement outlook:

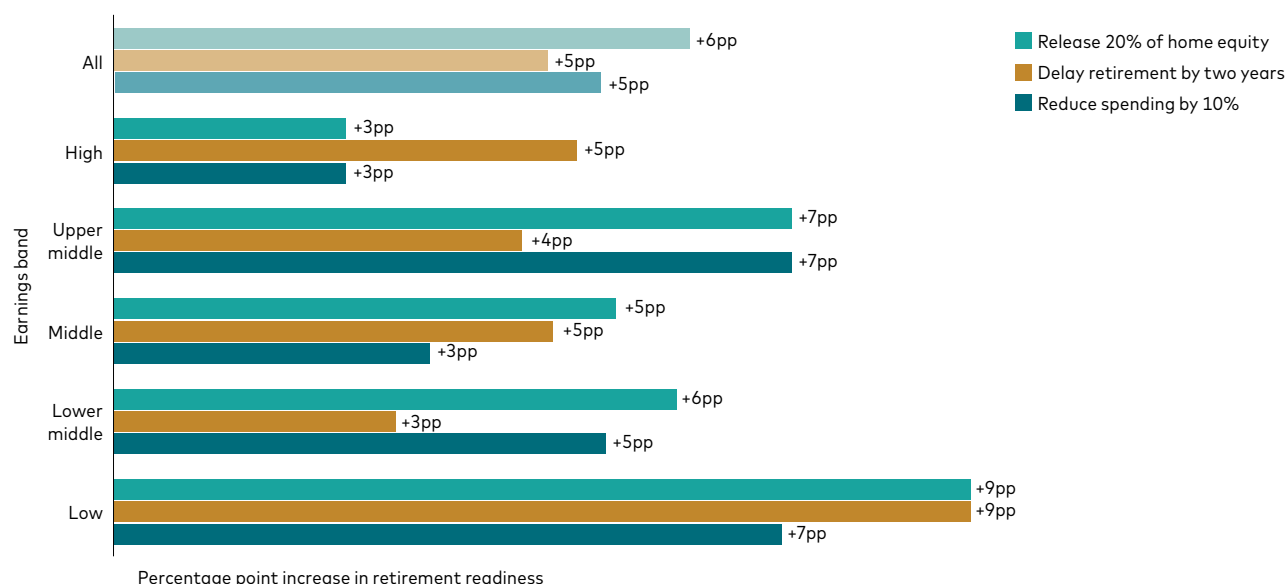
1. Retirees access home equity
2. Retirees delay retirement by two years
3. Retirees spend 10% less than planned

Figure 12 illustrates how these adjustments to our baseline assumptions could enhance retirement readiness across different income groups.

FIGURE 12

Levers to improve readiness: Releasing home equity, delaying retirement and reducing spending

Percentage-point change in retirement readiness by income cohort



Notes: Figures are based on target replacement rates as per Figure 3. Under the 'Release 20% of home equity' scenario, we assume that 20% of everyone's net property wealth is added to the initial net wealth from baby boomers. Under the 'Delay retirement by two years' scenario, we assume that people retire at 68 instead of 66. Under the 'Reduce spending by 10%' scenario we reduce the spending goal for each individual by 10%.

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation.

Lever #1: Leveraging home equity

Aside from pension wealth, property is the largest source of wealth for most individuals²⁸. For retirees facing a spending shortfall, one potential solution is to access home equity. This could be achieved through downsizing, relocating to a lower-cost area or undertaking an equity release strategy²⁹. While there are costs associated with moving house, selling a property and investing the proceeds can unlock additional funds, significantly reducing or even eliminating the spending gap. With property values rising in recent decades, this strategy has become increasingly relevant.

We examine the impact on retirement readiness under a hypothetical scenario where individuals release 20% of their net property wealth (**Figure 12**). Using home equity in this way could boost retirement readiness across the board. Taking middle-income baby boomers as an example, the percentage on track to meet their spending goal increases by 5 percentage points, equating to additional pre-tax retirement income of £3,480³⁰ for the median individual, about 13% of their spending needs.

Housing is just one example of other sources of wealth individuals can tap into to fund their retirement. Other wealth sources not included in our current definition, such as expected inheritance or business assets, could also be used to boost retirement savings.

Lever #2: Delaying retirement

Another effective strategy is delaying retirement. Not everyone will be able to work for longer, but for those who are able to, working just two more years until age 68 instead of the current state pension age of 66, can enhance financial security. Additional working years provide more time for income generation, increased pension contributions and a shorter period during which retirement savings must support living expenses. Furthermore, if individuals delay their retirement by two years, the amount of state pension they receive will increase³¹. This strategy improves retirement readiness by 5 percentage points for those in the middle-income group. For the median middle-income earner, this would equate to a boost in pre-tax retirement income of £3,490³² (13% of their spending needs).

Lever #3: Resetting spending goals

A third lever is to spend less in retirement. As our analysis has shown, retirement readiness depends greatly on the spending goal in mind. Evidence suggests that many people spend less than they anticipate during retirement. Reducing the annual spending goal by 10% increases the percentage of those on track to meet their spending goal for every income group. For middle-income baby boomers, readiness increases by 3 percentage points. The median individual of this cohort would see a £750 increase in annual retirement income, representing 3% of their spending needs.

Careful thought needs to be given to an individual's own unique needs and circumstances when determining what a retirement goal should be. This can be challenging, but many providers have developed retirement calculators that can help. Alternatively, individuals can seek advice from a professional financial adviser.

²⁸ See table A1.2 in the Appendix for more detail on sources of wealth by income cohort.

²⁹ Equity release is a financial strategy where homeowners can access the value in their property without selling it outright. This is typically done through a lifetime mortgage, where the homeowner borrows against the home's value, or a home reversion plan, where a portion of the home is sold in exchange for cash.

³⁰ For more detail of the impact across income cohorts see Appendix 2.

³¹ State pension increases by the equivalent of 1% for every 9 weeks of deferral. This works out as just under 5.8% for every 52 weeks. The extra amount is paid with the regular state pension payment. We model this in our scenario analysis for all individuals. For more information see <https://www.gov.uk/deferring-state-pension>.

³² For more detail of the impact across income cohorts see Appendix 2.

Lever #4: Saving more

For those who can, a fourth lever is to try to save more throughout their working life. A recent Vanguard survey found that people started researching and calculating how much they will need for retirement only three to five years before their planned retirement date, which is likely not enough time to save more³³. Given the proximity of the baby boomer generation to retirement, and therefore limited window for accumulating additional savings, we do not model this in our analysis. That said, we acknowledge that the nature of retirement is changing, and saving can continue during retirement. The transition from work to retirement is not as final as it was a decade ago. People may take on periods of work after reaching state pension age, providing the opportunity to save during retirement³⁴.

Saving more is crucial for future generations. Vanguard research³⁵ shows that increasing savings can be a powerful tool over the long run. By saving consistently and putting their money to work in the capital markets, younger individuals can benefit from the power of compounding over time. Saving more could be as simple as taking full advantage of employer matching in DC pension schemes. Building a larger retirement pot decreases the likelihood of needing to rely on less palatable levers, such as releasing home equity or delaying retirement, to achieve financial security in later life.

Crucially, all these levers are within most people's control. Even for those close to retirement, there are mechanisms that can deliver greater security in retirement.

³³ Vanguard commissioned Boring Money to survey 1,500 savers and investors aged 50 to 70 in January 2024. Survey participants had at least £75,000 in workplace or private pensions, or if they couldn't provide a pension value, a minimum income of £30,000 (retired) or £40,000 (non-retired).

³⁴ Gratton and Scott. *The 100-Year Life: Living and Working in an Age of Longevity*. Bloomsbury Publishing, 2016.

³⁵ *Vanguard's Principles for Investing Success*. Vanguard, 2023.

Policy considerations

Ensuring a secure retirement is not solely the responsibility of individuals; policymakers and industry providers play a crucial role in helping individuals achieve retirement security. This paper highlights the critical need to ensure early engagement with retirement savings to give individuals the best chance of a secure retirement. Automatic enrolment (AE) has been a vital tool in supporting UK workers in their retirement planning. To extend the benefits brought by AE, there are several steps that could be taken:

- Lower the age limit to 18
- Lower the earnings threshold
- Increase the contribution rate

We recognise the challenges of introducing policies focused on increasing contributions during a time of high living costs and higher national insurance contributions for employers. However, over time, these small changes could lead to a significant increase in pension savings. This will, in turn, provide greater security in retirement.

Additional regulatory changes that enhance visibility around pensions could also positively affect behaviours around understanding and engaging with retirement savings. The Pensions Dashboard, once live, will be a significant milestone. It will give workers the ability to identify and fully assess the sufficiency of their retirement savings and provide a clear picture of how their wealth is growing. This could be further enhanced through the introduction of a 'pot for life' pension, which would remove the need for workers to keep track of the various locations where their pensions are managed.

Conclusions

This paper provides a comprehensive view of retirement readiness for late-stage baby boomers in the UK. Our findings show that around 40% to 50% of this cohort are retirement ready, while the rest are projected to fall short of their spending goal.

Retirement readiness varies significantly by income level and spending goal. We test two commonly used measures of retirement spending: relative and absolute. Higher-income baby boomers are well-prepared under both relative and absolute measures. Low-income individuals often meet their relative spending goal but may face a low standard of living in retirement. Middle-income workers face substantial challenges in achieving retirement readiness, regardless of the spending goal. This suggests a need for further research to determine the actual spending needs of individuals across the income spectrum in retirement.

The composition of retirement savings is crucial. Low-income baby boomers rely heavily on state support, while higher-income individuals have accumulated wealth through workplace pensions, property and savings. Those with access to DB pension schemes are more than twice as likely to meet their retirement goals compared to those without.

Preparing for retirement can be complex and it is not surprising that many people feel uncertain and lack confidence in their retirement planning. However, tools and strategies exist to help navigate this journey. Individuals can improve their retirement readiness by tapping into home equity, delaying retirement and resetting their spending goals. Those with complex financial circumstances may also benefit from seeking financial advice. For younger generations, saving early and saving more is crucial for financial security in later life.

Looking ahead, as the retirement system moves away from DB schemes for all but the public sector, DC schemes will become increasingly important for future generations. Policy considerations that extend the benefits of AE and increase visibility on retirement savings can help younger workers save effectively and retire with confidence.

The diverse needs of today's baby boomers and future generations highlight the importance of tailored and comprehensive retirement planning strategies. With the right support, retirement can be a simpler and more secure phase of life.

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Appendix

Appendix A1: The Vanguard Retirement Readiness Model

The Vanguard Retirement Readiness Model (VRRM) is a quantitative framework to assess retirement readiness. The model combines assumptions about individual circumstances such as age, income, investable net wealth, financial balances, employer-sponsored retirement plan access, retirement goals and lifetime asset allocations with simulated wealth projections based on Vanguard's asset-class return forecasts from the Vanguard Capital Market Model (VCMM). We project wealth in 10,000 simulation paths for each individual reflecting stochastic capital market returns, wages and saving rates while applying survival probabilities implied from the life expectancy tables. We estimate a person to have adequate retirement savings if they will not run out of money in 80% of these scenarios.

The Vanguard Retirement Outlook uses this model to investigate retirement readiness of UK workers to evaluate the health of the UK retirement system. We calibrate the VRRM using financial and demographic characteristics from

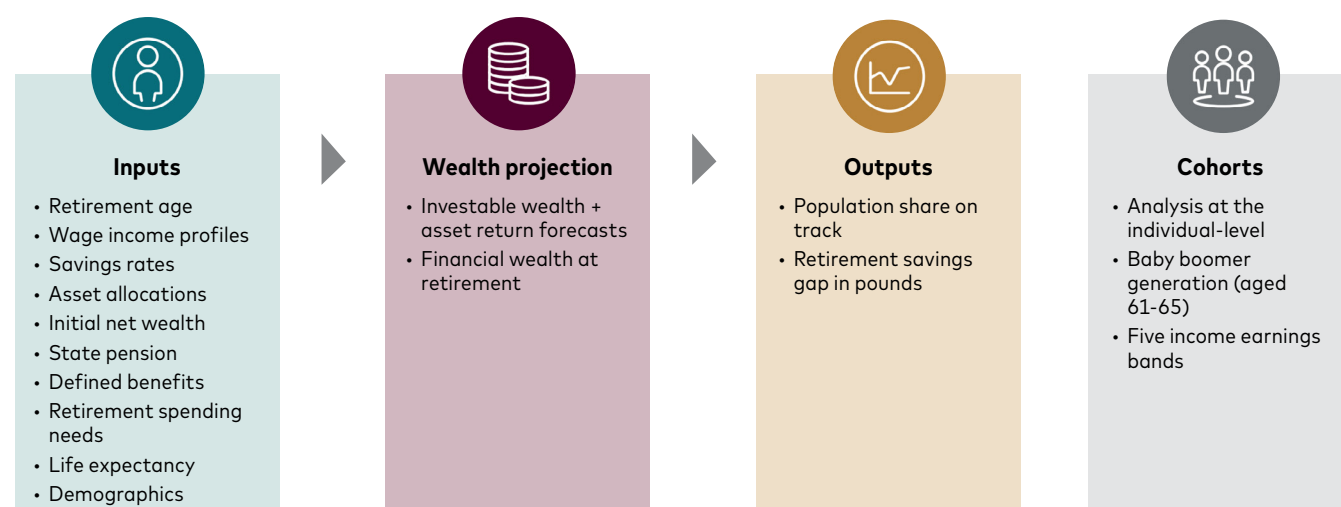
the Office for National Statistics (ONS) Wealth and Assets Survey (WAS), supplemented with the mortality tables from the ONS, asset allocation data from the Corporate Adviser Master Trust and GPP report (2023) and default glidepath data from the respective DC pension providers.

The model produces two retirement readiness metrics:

- **Share of the population on track:** the share of population in our simulation sample whose projected retirement savings upon retirement exceeds their estimated total retirement spending in 80% of mortality and capital markets scenarios.
- **Savings gap:** the pound gap between the projected annual total retirement income and the estimated annual retirement spending.

Figure A1.1 depicts the model's framework, inputs, and outputs, which we describe in more detail below.

FIGURE A1.1
The Vanguard Retirement Readiness Model for the UK



Source: Vanguard (2025)

Key inputs

- **Sample:** our sample includes 717 individuals aged between 61 and 65 in full-time employment in wave 7 (2018-20) of the ONS Wealth and Assets Survey³⁶. Individuals are categorised into five gross earnings bands based on their pre-retirement gross employment income. We use the gross earnings bands as recommended by the Pensions Commission when developing the TRRs. The bands we use have been updated for 2024-25 by the Resolution Foundation to reflect earnings growth and changes to tax since the Pension Commission modelling in 2004. **Figure 3** shows the gross earnings band used in the analysis.
- **Initial net wealth:** we estimate initial net wealth from the WAS as the sum of net financial wealth, DC wealth and personal pensions wealth³⁷. To reduce the influence of extreme outliers, we trim total wealth at the 1st and 99th percentile within each earnings band (**Figure A1.2**). In our baseline scenario we exclude home equity. We model separately the impact of accessing home equity on retirement readiness for the baby boomer generation.
- **Pre-retirement income:** we use gross employment income prior to retirement from the WAS as our measure of income for all scenarios tested³⁸.
- **Retirement age:** across all workers in the sample, we assume a retirement age of 66, consistent with the current age for receiving the state pension.
- **Asset allocation:** we estimate lifetime asset allocation profiles by analysing financial assets in three components: shares, bonds and cash (**Figure A1.4**). As the WAS does not provide data at the asset class level, we estimate asset allocation profiles for individuals based on the default asset allocations of the largest providers of DC pension plans. We identify the largest providers using the Corporate Adviser Master Trust and GPP Report for 2023³⁹. We find the default glidepath for the seven largest DC pension plan providers, covering roughly 88% of active members covered by the report. To determine the asset allocation across shares, bonds and cash, we weight each respective provider's asset allocation by number of members in the scheme as a percentage of the number of active members covered by all seven providers. We exclude assets not forecasted by VCMM.
- **Market returns:** we leverage a wealth and market return simulation engine that incorporates return forecasts for each asset class from the VCMM, based on 10,000 simulations (Davis et al., 2014). In this analysis we incorporate our proprietary asset-class return projections derived from the VCMM as at the end of 2023.
- **Spending needs in retirement:** we test the model under two different consumption schemes. First, we test a relative measure, following a set of gross income TRRs as established by the Pensions Commission. We use the set of TRRs adjusted by the Resolution Foundation to reflect changes to the personal tax system for 2024-25 (**Figure 3**). Second, we test an absolute measure, following the Retirement Living Standards, as defined by the PLSA⁴⁰. For consistency with the TRR approach, which is based on gross employment income, we use the pre-tax annual expenditure measures for a single individual in 2024-25 prices, as estimated by the PLSA (**Figure 4**). The PLSA defines spending goals for single individuals and those in a couple. For

³⁶ The Office for National Statistics Wealth and Assets Survey is a representative bi-annual panel survey of UK individuals and households. The ONS employs an imputation strategy to address missing data. We use the ONS's derived variables to account for this. We use the old methodology used by the ONS in Round 7 of the WAS for pension wealth derivation.

³⁷ Net financial wealth is the sum of the values of formal and informal financial assets (including current and savings accounts, ISAs, investments in shares and bonds), plus the value of certain assets held in the names of children, plus the value of endowments purchased to repay mortgages, less the value of non-mortgage debt. DC pension wealth is the total value of current defined contribution pension wealth plus the total value of retained rights in DC schemes. Personal pension wealth is the total value of personal pension schemes.

³⁸ This measure of income means we do not include additional benefits paid to low-income workers.

³⁹ Greenwood and Simon. *Master Trust and GPP Report*. Corporate Adviser, 2023.

⁴⁰ See [How to estimate likely Retirement Living Standards](#), PLSA, 2023.

individuals in a couple, we assume the spending goal is shared equally for simplicity. We assume individuals are in a couple if they are reported as married or in a civil partnership.

- **State pension:** we assume all individuals receive the full state pension of £221.20 a week (2024-25 tax year) from the age of 66 onwards.
- **Defined benefits:** the WAS collects details about DB pension benefits in several different components: 1) annual pension income of first pension, 2) annual pension income of second pension, 3) total value of retained DB pension income and 4) income from pensions in payment. We take the sum of

these four components to be our flow of DB annual income. The source of pensions in payment (whether DB or DC) is not currently collected as a part of the survey. Following the Government Actuary's Department recommendation, we assume that the source of the entire income from pensions in payment is DB⁴¹.

- **Mortality:** we consider a distribution of mortality outcomes, which differ by generational cohorts, based on mortality tables provided by the ONS. We assume life expectancy to be consistent across earnings cohorts.

FIGURE A1.2
Sample summary statistics by income

Variable	Low income	Lower middle income	Middle income	Upper middle income	High income
Sample size	96	261	146	135	79
Income	£12,000	£25,000	£38,000	£56,000	£106,000
Initial wealth	£31,000	£24,000	£59,000	£138,000	£293,000
Net financial wealth	£11,000	£9,000	£17,000	£42,000	£99,000
DC and personal pension wealth	£0	£0	£5,000	£35,000	£50,000
Property wealth	£205,000	£119,000	£142,000	£213,000	£286,000
DB annual income	£0	£2,000	£2,000	£6,000	£11,000
Initial wealth-to-income ratio	2.4	1.0	1.5	2.5	2.5

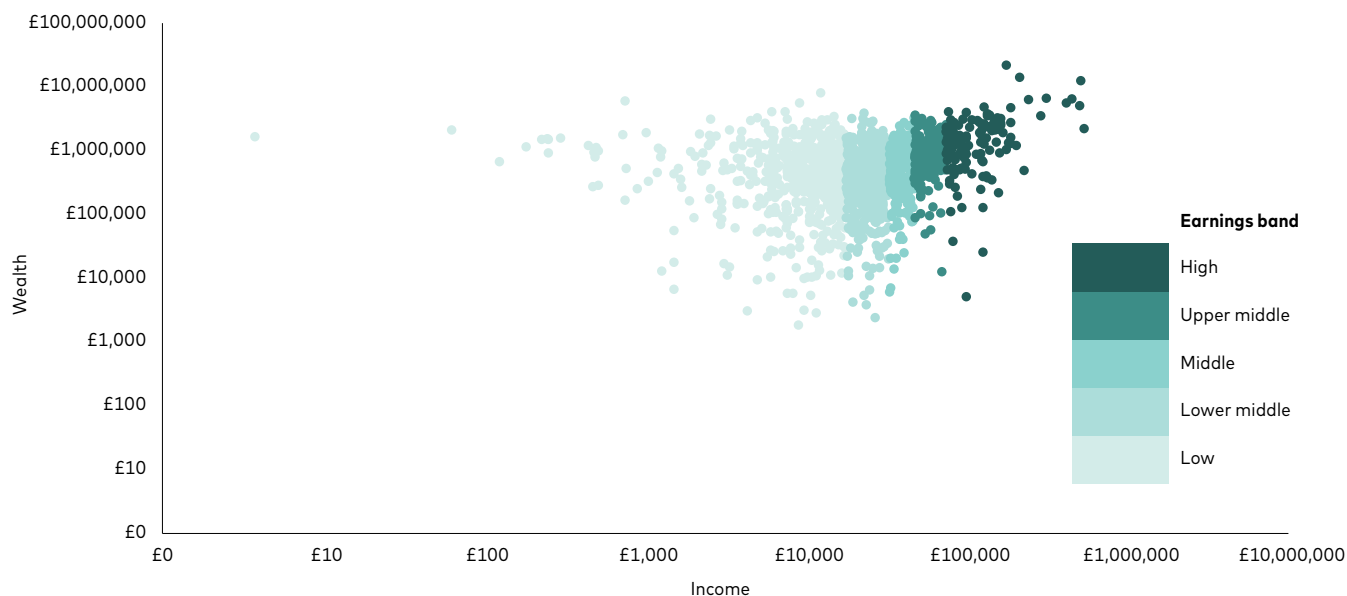
Notes: All statistics are reported as median values. Pound values are in 2024 prices, rounded to the nearest thousand.

Source: Vanguard calculations, based on data from the ONS WAS (Round 7).

⁴¹ Chris Morley and Scott Madden. *Valuing Defined Benefit Pension Wealth*. Government Actuary's Department, December 2023.

FIGURE A1.3

Wealth and income for baby boomers: there is a lot of variation in wealth for any given level of income

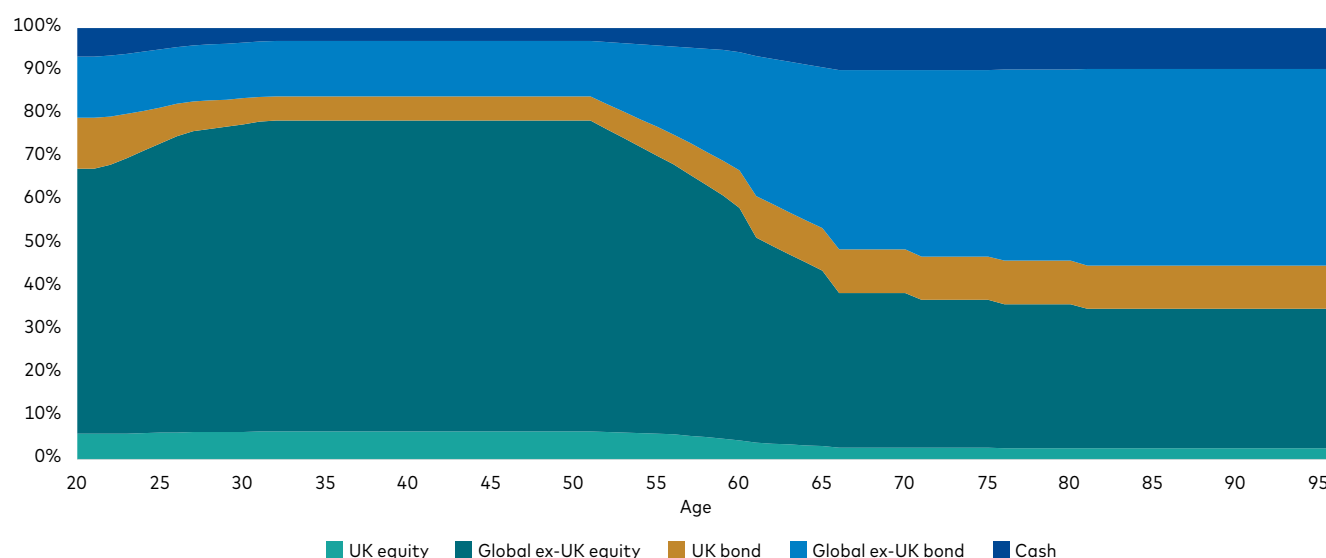


Notes: Income and wealth values for all full-time workers aged 60-64 with positive income and wealth. Wealth and income values are shown on a log-base-10 scale. Pound values in 2024 prices. Missing data points are excluded. Each colour represents a different income band as defined in Figure 3.

Source: Vanguard calculations, based on data from the ONS WAS (Round 7).

FIGURE A1.4

Lifetime asset allocation trajectories based on the default options of the largest DC providers, weighted by number of members



Notes: This chart depicts the asset allocation trajectory among stocks, bonds and cash we apply in our model. The asset allocation is determined based on the default asset allocations of the seven largest DC pension plan providers, as identified in the Corporate Adviser *Master Trust and GPP Report 2023*, weighted by number of active members.

Source: Vanguard calculations based on data in the Corporate Adviser *Master Trust and GPP Report*, Greenwood and Simon, 2023, and the default glidepath for each respective DC provider.

Appendix A2: Additional results

Modelling all three Retirement Living Standards

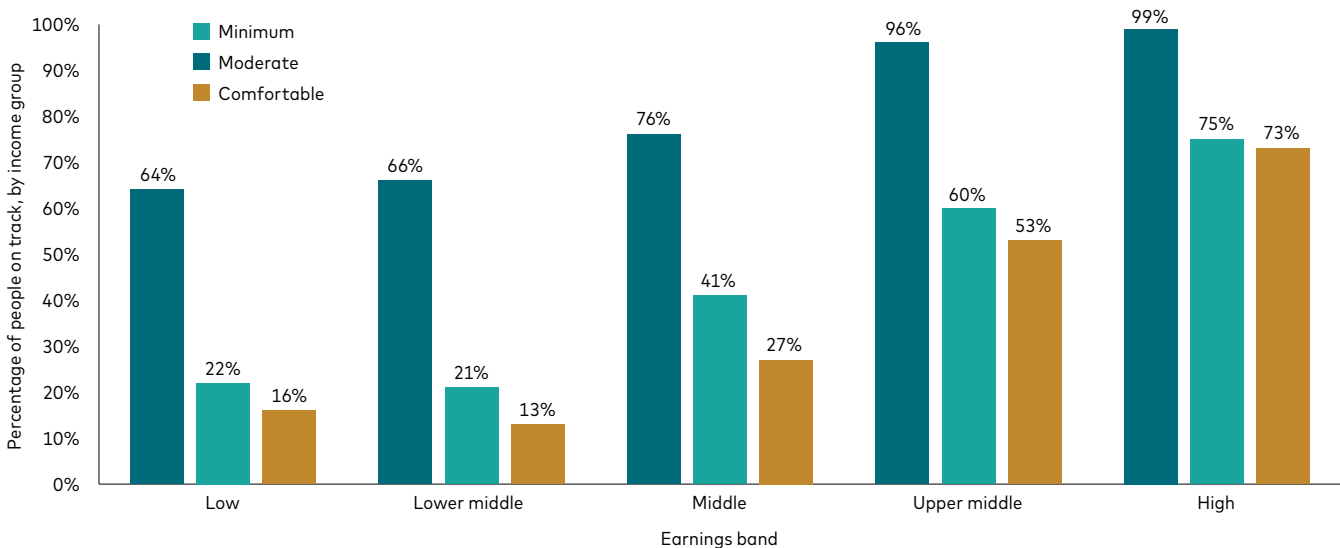
When retirement readiness is assessed using absolute spending goals, a different pattern emerges. Retirement readiness tends to improve as income levels rise across all three PLSA-defined Retirement Living Standards (**Figure A2.1**).

Under the minimum RLS, more than 60% of each income group are on track for retirement. Conversely, for both the moderate and comfortable standards of living, only among the highest earners are a majority of individuals on track to meet their spending goal.

FIGURE A2.1

A different picture of readiness appears with absolute spending goals

Percentage of baby boomers on track to meet their spending goal under the PLSA Retirement Living Standards approach, by income group



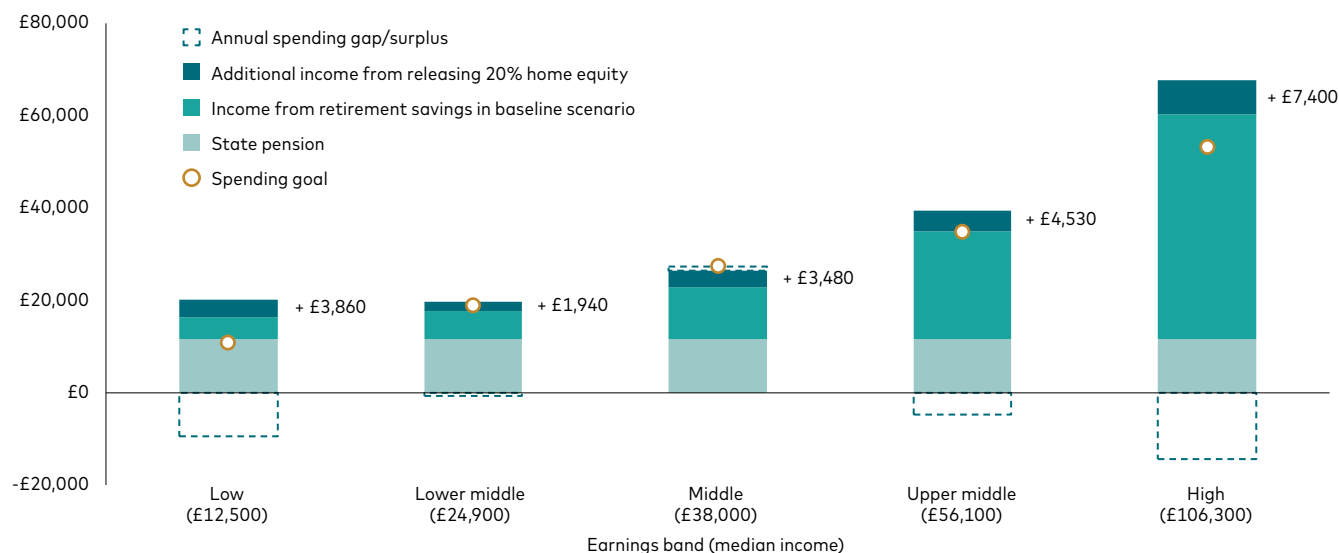
Notes: We compare the different income groups against a minimum RLS (£14,857 a year of spending for singles, £11,500 for those in a couple), a moderate RLS (£35,982 a year of spending for singles, £23,795 for those in a couple) and a comfortable RLS (£50,887 a year of spending for singles, £33,732 for those in a couple).

Sources: Vanguard calculations, based on data from the ONS WAS (Round 7). PLSA calculations of Retirement Living Standards.

FIGURE A2.2

Releasing home equity is another tool at individuals' disposal to improve estimates of retirement readiness

Annual spending needs versus spending capacity under target replacement rates approach, by income group if individuals release home equity



Notes: State pension is assumed to be flat at £11,502 annually and grown in line with inflation, as forecasted by the VCMM. Income from retirement savings includes both pension wealth and financial wealth. The median spending goal is calculated using the target replacement rates for each income group. A negative spending gap implies the median individual has sufficient retirement income to cover their spending needs, while a spending surplus implies the median individual will not have sufficient income to cover their spending needs in retirement. Under this scenario, we assume that 20% of each individual's property wealth is added to initial wealth.

Source: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation.

FIGURE A2.3

Delaying retirement by two years boosts retirement income across all cohorts but particularly for the highest earners

Annual spending needs versus spending capacity under target replacement rates approach, by income group if individuals delay retirement by two years



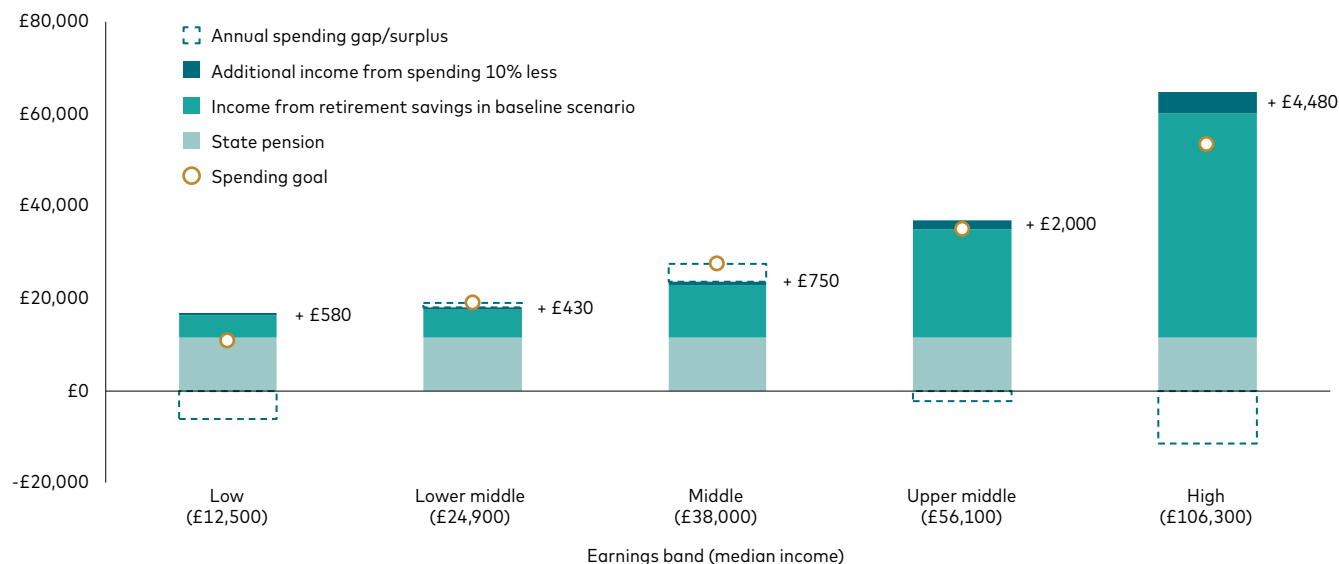
Notes: State pension is assumed to be flat at £11,502 annually and grown in line with inflation, as forecasted by the VCMM. Income from retirement savings includes both pension wealth and financial wealth. The median spending goal is calculated using the target replacement rates for each income group. A negative spending gap implies the median individual has sufficient retirement income to cover their spending needs, while a spending surplus implies the median individual will not have sufficient income to cover their spending needs in retirement. Under this scenario, we assume individuals retire at age 68 rather than age 66.

Source: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation.

FIGURE A2.4

Resetting spending can also help to improve the likelihood of being retirement ready

Annual spending needs versus spending capacity under target replacement rates approach, by income group if individuals reduce spending by 10%



Notes: State pension is assumed to be flat at £11,502 annually and grown in line with inflation, as forecasted by the VCMM. Income from retirement savings includes both pension wealth and financial wealth. The median spending goal is calculated using the target replacement rates for each income group. A negative spending gap implies the median individual has sufficient retirement income to cover their spending needs, while a spending surplus implies the median individual will not have sufficient income to cover their spending needs in retirement. Under this scenario, we assume individuals reduce their annual spending target by 10%.

Source: Vanguard calculations, based on data from the ONS WAS (Round 7). Pensions Commission's target replacement rates, with gross earnings band thresholds uprated by the Resolution Foundation.

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time. The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

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The primary value of the VCMM is in its application to analysing potential client portfolios. VCMM asset-class forecasts—comprising distributions of expected returns, volatilities, and correlations—are key to the evaluation of potential downside risks, various risk–return trade-offs, and the diversification benefits of various asset classes. Although central tendencies are generated in any return distribution, Vanguard stresses that focusing on the full range of potential outcomes for the assets considered, such as the data presented in this paper, is the most effective way to use VCMM output.

The VCMM seeks to represent the uncertainty in the forecast by generating a wide range of potential outcomes. It is important to recognise that the VCMM does not impose “normality” on the return distributions, but rather is influenced by the so-called fat tails and skewness in the empirical distribution of modelled asset-class returns. Within the range of outcomes, individual experiences can be quite different, underscoring the varied nature of potential future paths. Indeed, this is a key reason why we approach asset-return outlooks in a distributional framework.

Investment risk information

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