InvesTips

# The future of retirement

October 2023

WS Global CIO Office

# Preparing for longer lives and changing demographics

Population ageing is the dominant demographic trend of the twenty-first century—a reflection of increasingly longer lifespans, declining fertility, and the progression of large cohorts of the population to older ages. Never have such large numbers of people reached ages 65+ (the conventional 'old-age' threshold).

The size of this group is expected to reach more than one billion over the next three to four decades. Among the older population, the group aged 85+ is growing especially fast and is projected to surpass half a billion in the next 80 years. This trend is significant because the needs and capacities of the 85+ cohort tend to differ significantly from those of the 65- to 84-year age range.

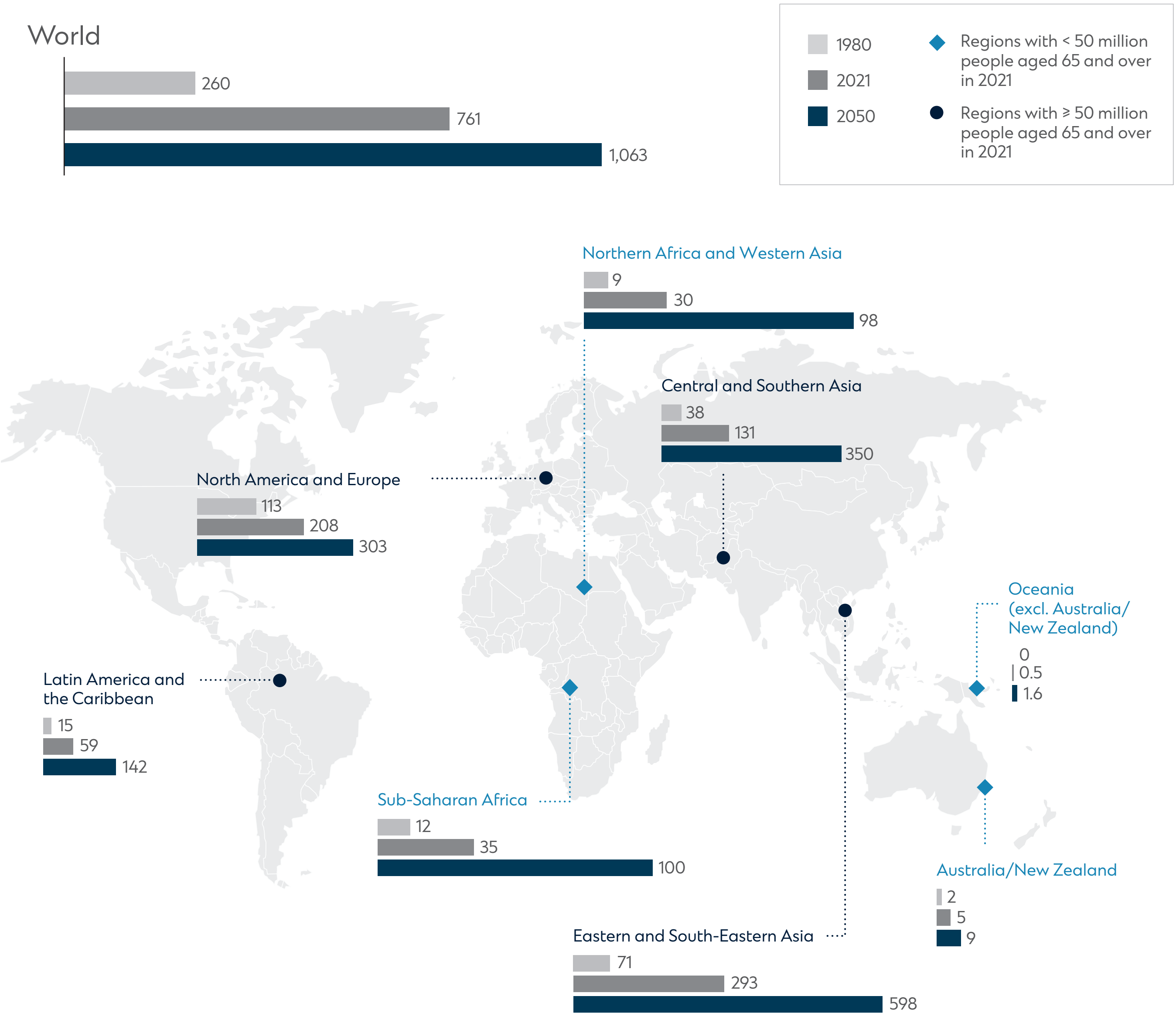
The differences in the progression of this phenomenon are expected to be considerable across countries. Japan is currently the world leader, with 28% of its population aged 65 and over, triple the world average. According to UN statistics, by 2050, 29 countries and territories are likely to have larger elder populations than Japan has today.

**Steve Brice**
Global Chief Investment Officer

**Manpreet Gill**
Chief Investment Officer, Africa, Middle East & Europe (AMEE)

**Trang Nguyen**
Senior Portfolio Manager, Multi-Asset

Number of people aged 65 years or above in millions, world and regions, 1980, 2021 and 2050




Source: United Nations (2022a)

With rising life expectancy, the societal shift towards diverse career trajectories, changing familial responsibilities, and evolving consumer behaviours makes the traditional one-size-fits-all retirement model look increasingly outdated.

**Shift in career choices:** The 21st-century work landscape is far from linear. The U.S. Bureau of Labour Statistics found that the average individual now holds multiple jobs and even experiences career shifts in their lifetime. With people increasingly exploring ‘gig work’, freelance opportunities, or even mid-career sabbaticals, access to savings might be needed at diverse life stages and not just post-retirement.

**Modern lifestyle choices:** Today’s retirees are more interested in new beginnings than winding down. Many envision their 50s and 60s as a time for travel, education, or starting new ventures. This desire to “live in the moment” necessitates a more flexible approach to savings.

**Changes in family dynamics:** The nuclear family model and increasing global mobility mean many individuals provide financial support to children's overseas education or assist ageing parents well before their own retirement.

**Cultural perspectives on ageing:** Increasingly, many cultures don't perceive retirement as a cessation of work but a transition. In such societies, elders remain engaged in community roles, family businesses, or farms, for example.

In this publication, we look at key considerations an average investor needs to have and what actions they can take for successful retirement planning, given rising life expectancy, and various societal shifts.

//

By failing to prepare,

you are preparing to fail.

– **Benjamin Franklin**

# Start early to tackle longevity risks

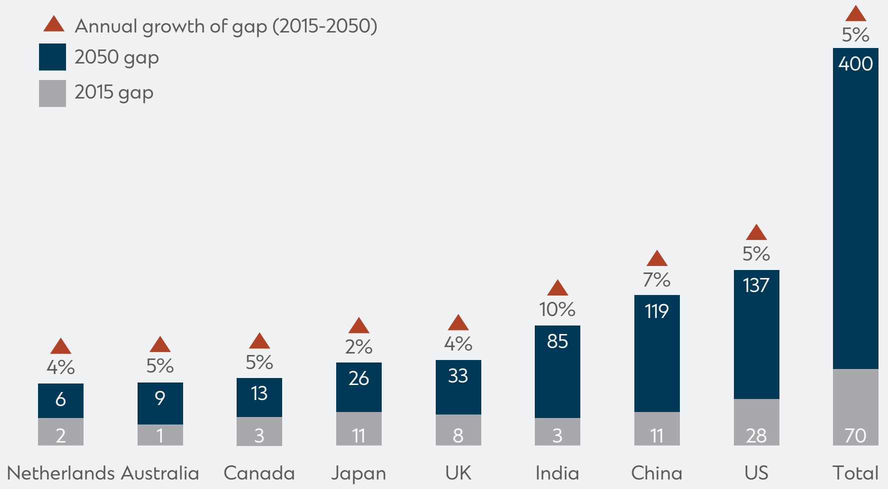
Increasing life expectancies and longer lifespans globally have raised the risk of people outliving their savings.

According to the World Economic Forum, workers are not saving nearly enough for their retirement, which has led to a USD 70 trillion savings gap in eight of the world's largest established pension systems or populations*. That staggering figure is predicted to increase to USD 400 trillion by 2050.

Focusing on saving and starting the investment journey early have become extremely important in the planning process for a potentially extended retirement period. Taking advantage of the magical power of compounding is one of the most effective ways to tackle longevity risks. An example in the 'Hypothetical savings' chart shows that investors who started saving and investing 10 years earlier would have close to double the saving at retirement. This assumes the two investors made a one-time USD 5,000 investment and earned the same 6% per annum return on their investment.

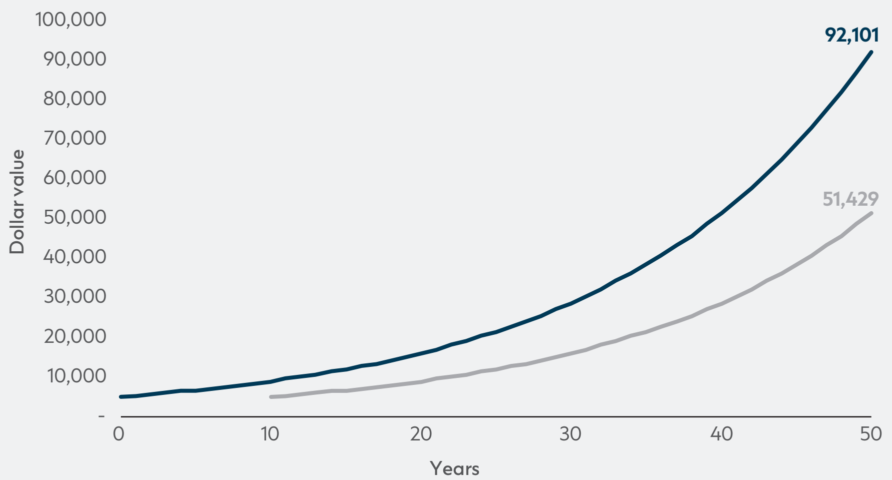
Retirement savings gap increasing globally

Size of retirement savings gap (USD trillions, 2015)




Source: Mercer, World Economic Forum

Hypothetical savings that two investors can have by investing USD 5,000 at the rate of 6% (per year) at different points of time (10 years apart)




Source: Standard Chartered

*These countries are Australia, Canada, China, India, Japan, the Netherlands, the UK and the US.

# Prioritize financial education

Financial education plays a crucial role in shaping the future of retirement planning, equipping individuals with the knowledge and skills necessary to make informed decisions about their financial well-being.

By empowering people to navigate the world of personal finance, financial education can help mitigate potential risks and ensure a secure retirement.

**1. A range of studies consistently highlight a significant lack of financial literacy among individuals.** According to a survey conducted by the National Financial Educators Council, only 24% of millennials (US based) demonstrated basic financial literacy skills. This knowledge deficit can have severe implications for retirement planning, as individuals without financial education are more likely to make poor investment choices, accumulate excessive debt, and fail to save adequately for retirement.

**2. The shifting landscape of retirement planning demands greater financial acumen.** With the decline of traditional pensions and the rise of self-directed retirement accounts, individuals are now responsible for managing their own retirement savings. This is particularly relevant considering the rise of new assets such as cryptocurrencies and digital assets. For example, Bitcoin, the most well-known cryptocurrency, experienced a significant rise in value, reaching a market capitalization of over USD 1 trillion in 2021. Without proper financial education, individuals may be susceptible to the volatility and risks associated with these assets, potentially jeopardizing their retirement savings.

**3. Financial education has a positive impact on retirement outcomes.** A study by the Employee Benefit Research Institute found that individuals who participate in financial education programs are more likely to contribute to retirement plans, increase their savings rates, and diversify their investments. These individuals tend to make more informed investment decisions for their retirement portfolios, considering factors such as risk tolerance, asset allocation, and long-term investment strategies. Therefore, they are more likely to 'right-size' any investments based on the risks and opportunities of the underlying asset classes and how they might fit into a portfolio.

# Inflation-proof your retirement plan

Longer lives potentially mean longer retirement periods.

It is crucial to consider the potential effects inflation can have on the long-term goals and account for them in the final projections.

First, retirement can span several decades, during which the cumulative effects of inflation can significantly erode the value of savings. Furthermore, inflation impacts various aspects of retirement, including housing, daily living expenses, and leisure activities. Failing to protect savings from inflation can lead to a gradual decline in the ability to afford these essential and enjoyable aspects of retirement. Without protection, individuals risk falling short of their desired standard of living in retirement. It is not only essential to account for the impact of inflation and currency fluctuations on investments, but also to understand their effect. Even inflation of 1-2% can have a significant impact on both the value and income-generating capacity of a portfolio. For instance, the table below examines the effects of inflation from two perspectives.

Second, longer lifespans often come with increased healthcare expenses. Healthcare costs tend to rise at a higher rate than inflation, and retirees generally may consume more and/or increasingly costly care with time. The 2023 Global Medical Trends Survey reveals that costs are expected to continue rising in most regions (figure below), with a high global average real (net of inflation) growth rate of 6.5%.

Purchasing power of USD 1m today based on the different inflation rates over different periods of time

| | | Inflation rate | | | |
|---|---|---|---|---|---|
| | 1.0% | 1.5% | 2.0% | 2.5% | 3.0% |
| Years 15 | 861,349 | 799,852 | 743,015 | 690,466 | 641,862 |
| Years 20 | 819,544 | 742,470 | 672,971 | 610,271 | 553,676 |
| Years 25 | 779,768 | 689,206 | 609,531 | 539,391 | 477,606 |
| Years 30 | 741,923 | 639,762 | 552,071 | 476,743 | 411,987 |

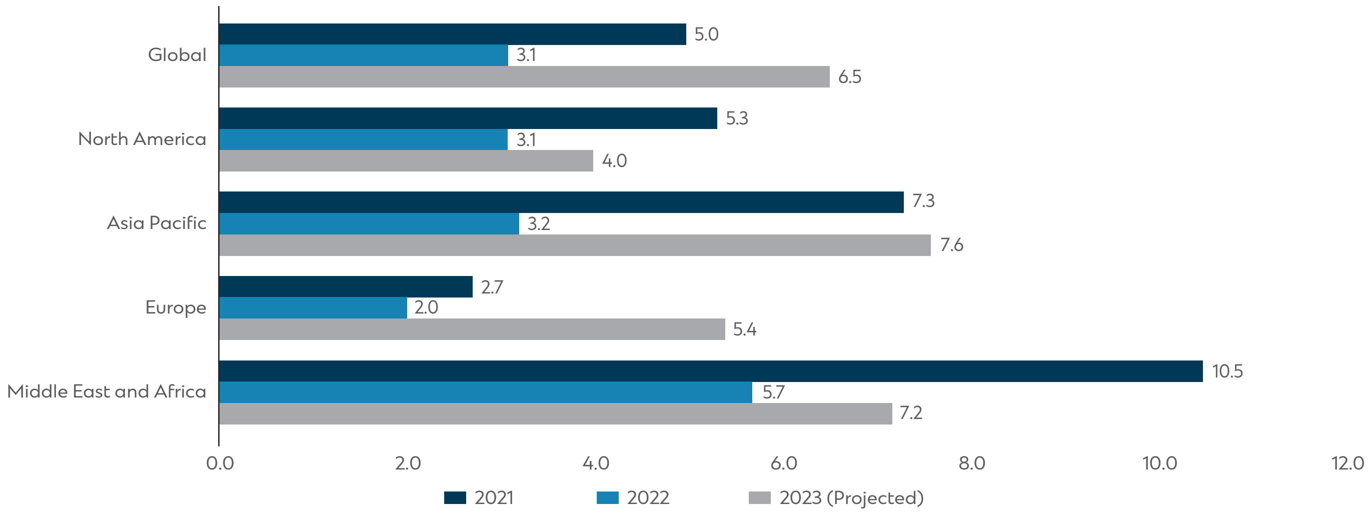
Source: Standard Chartered

Careful planning, incorporating rising healthcare costs, factoring in potential medical expenses, and long-term care insurance options are needed to safeguard against potential financial burdens.

Healthcare costs can vary by region – urban areas would typically have higher healthcare costs than rural.

Understand the available healthcare benefits for retirees, set aside a contingency fund to cover unexpected medical expenses, opt for long-term annuity plans and review the retirement plan, including any health insurance plans, to ensure it meets one's needs and budget.

## Growth rate (net of inflation) in medical cost by region




Source: IMF, Standard Chartered

# Consider state and occupational pension systems

Understanding the implications of changing demographics on government pension plans and social security, such as potential adjustments to retirement age, benefit calculations or government reforms, is vital for successful retirement planning.

This is especially critical for individuals that have worked and lived in different countries and continents.

For instance, each country in Asia or the Euro area may have its own government pension and social security systems that have eligibility criteria and benefit structures. Countries in the Euro area generally have well-established social security systems that provide pensions and other benefits to retirees. In the US, policymakers are now also considering the idea of replacing social security with private retirement accounts in an attempt to lift the rate of returns on retirement contributions and boost national saving and future economic growth. People would be free to choose from different fund types, such as a money market fund, an index fund, a REIT, and a US government bond fund, which will allow them to withdraw from their funds when they have reached the retirement age or even opt for a lump-sum distribution if they become disabled. As with some pension plans, their children could inherit funds accumulated in the account if the person passes away before reaching the retirement age.

Being aware of local regulations and tax implications related to investments and understanding the specific rules and regulations governing these systems in your country of residence and how they may impact your retirement income is crucial, as they often vary between countries. It is also key to stay informed about any policy changes that may affect your retirement income and consider how contributions and years of service impact the amount of pension one will receive. A professional advisor can help navigate the investment landscape and select suitable investment vehicles for a retirement portfolio.

# Reimagine the retirement life of the future for the right planning

As we look ahead to the future, there are several compelling changes in the way people live that individuals should be aware of when planning for retirement.

**Housing preferences and options**
Retirement living preferences are evolving, with a shift towards more flexible and diverse housing options. Many retirees are opting for downsizing, embracing smaller, low-maintenance homes, or even exploring alternative housing models such as cohousing or senior co-living communities.

Additionally, the demand for age-friendly and accessible housing is increasing as individuals aim to "age in place" – the concept of ageing in which seniors are encouraged to grow old in their own homes or within the communities where they live. According to a 2023 Gen Z and Millennial survey by Deloitte, a majority indicated that they have already and/or are likely to have an energy-efficient homes.

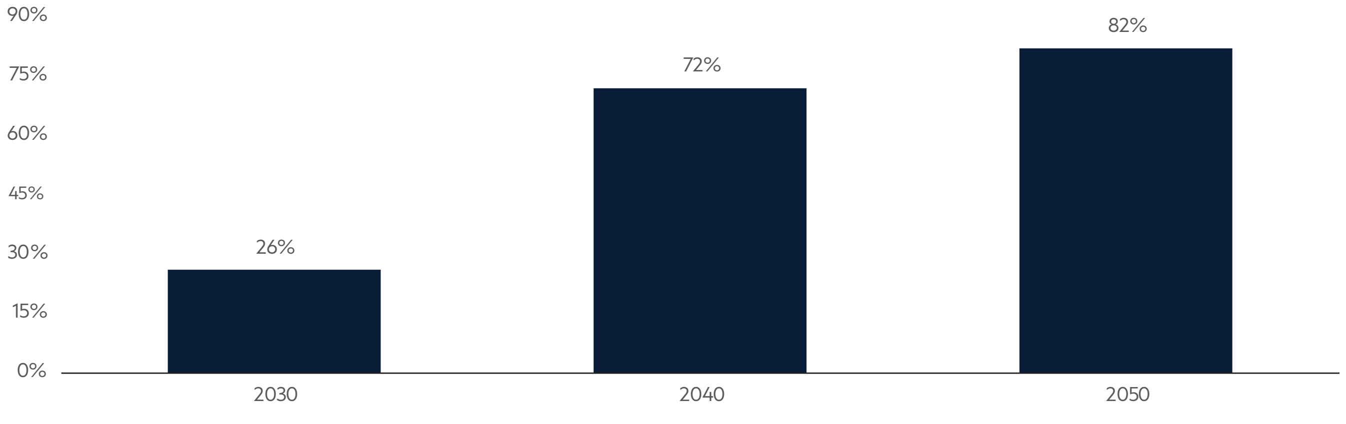
Being aware of these changing housing trends and considering suitable options can help individuals plan for housing that aligns with their desired retirement lifestyle and needs.

**Transportation advancements**

The transportation landscape is undergoing rapid transformations with the rise of electric vehicles, autonomous driving technology, and shared mobility services. These advancements can significantly impact retirement planning. Electric vehicles can offer cost savings in terms of fuel and maintenance, while autonomous vehicles may provide increased mobility options for individuals with limited driving capabilities. The global market share of electric vehicles is growing rapidly. According to a survey by Statista, it is projected that by 2030, one in four new cars sold will be battery-powered. It is projected that this figure will increase to over 80% by 2050.

Additionally, shared mobility services like ridesharing and car-sharing can offer affordable and convenient transportation alternatives for retirees. From the same survey done by Deloitte, data shows that 59% of Millennial correspondents reported that they have stopped or will stop driving a car. Understanding and incorporating these transportation changes into retirement planning can help individuals prepare for potential cost savings and increased mobility in their later years.

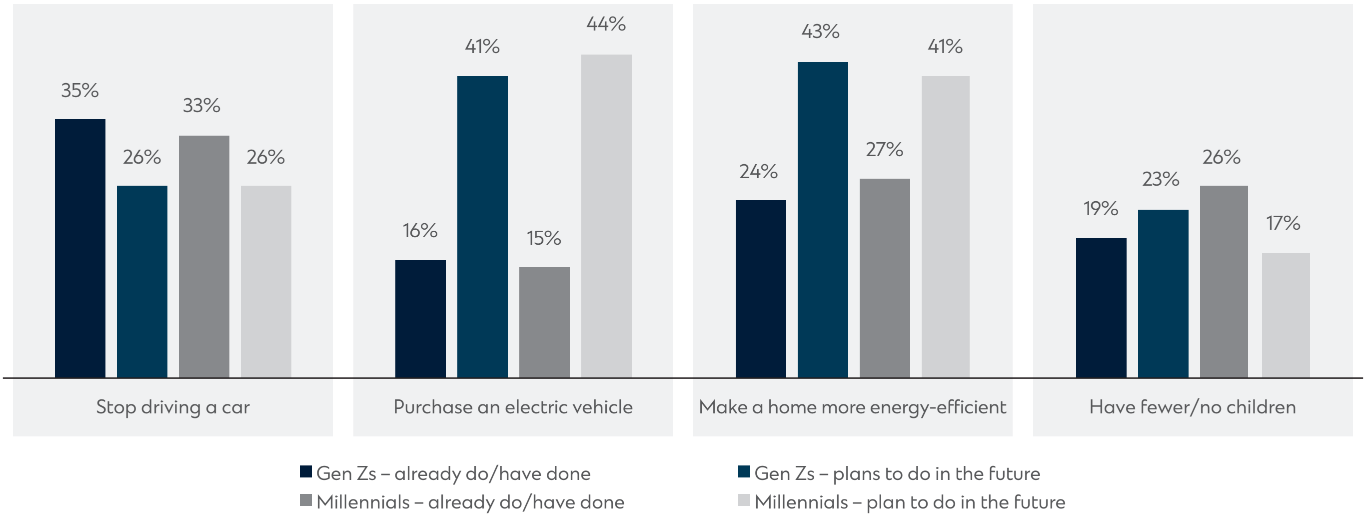
Projected electric vehicle sales as a percentage of car sales worldwide between 2030 and 2050




Source: Statista

**Communication and connectivity**
The digital revolution has transformed communication and connectivity, and this trend will continue to shape retirement living. Technology allows retirees to stay connected with loved ones, access information, engage in online communities, and participate in remote work or volunteer opportunities. Understanding and embracing technology can enhance social connections, provide learning opportunities, and enable remote engagement, thereby enriching the retirement experience.

Actions taken or intended in the future to reduce environmental impact




Source: Deloitte

# Conclusion

Preparing for retirement is undeniably more complex than merely setting aside a portion of one's income. It is a multidimensional endeavour that demands early action, sustained financial literacy, and a keen eye on broader economic undercurrents like inflation.

While traditional pillars like state and occupational pensions remain relevant, they might not be the silver bullets they once were, necessitating a multi-pronged approach to retirement planning. Beyond the economics, future retirees should also allow themselves the latitude to envision varied post-retirement lifestyles, breaking free from rigid or outdated stereotypes.

As we stand on the brink of an evolving future with increasing life expectancy, technological advancements, and shifting societal norms, it is imperative to foster a retirement mindset that's both financially astute and imaginatively unbounded. Indeed, retirement preparation is as much about financial prudence as it is about envisioning and planning strategically for the quality of life one would wish to have during retirement.

**Disclosures**

This document is confidential and may also be privileged. If you are not the intended recipient, please destroy all copies and notify the sender immediately. This document is being distributed for general information only and is subject to the relevant disclaimers available at our Standard Chartered website under Regulatory disclosures. It is not and does not constitute research material, independent research, an offer, recommendation or solicitation to enter into any transaction or adopt any hedging, trading or investment strategy, in relation to any securities or other financial instruments. This document is for general evaluation only. It does not take into account the specific investment objectives, financial situation or particular needs of any particular person or class of persons and it has not been prepared for any particular person or class of persons. You should not rely on any contents of this document in making any investment decisions. Before making any investment, you should carefully read the relevant offering documents and seek independent legal, tax and regulatory advice. In particular, we recommend you to seek advice regarding the suitability of the investment product, taking into account your specific investment objectives, financial situation or particular needs, before you make a commitment to purchase the investment product. Opinions, projections and estimates are solely those of SC at the date of this document and subject to change without notice. Past performance is not indicative of future results and no representation or warranty is made regarding future performance. The value of investments, and the income from them, can go down as well as up, and you may not recover the amount of your original investment. You are not certain to make a profit and may lose money. Any forecast contained herein as to likely future movements in rates or prices or likely future events or occurrences constitutes an opinion only and is not indicative of actual future movements in rates or prices or actual future events or occurrences (as the case may be). This document must not be forwarded or otherwise made available to any other person without the express written consent of the Standard Chartered Group (as defined below). Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. Standard Chartered PLC, the ultimate parent company of Standard Chartered Bank, together with its subsidiaries and affiliates (including each branch or representative office), form the Standard Chartered Group. Standard Chartered Private Bank is the private banking division of Standard Chartered. Private banking activities may be carried out internationally by different legal entities and affiliates within the Standard Chartered Group (each an “SC Group Entity”) according to local regulatory requirements. Not all products and services are provided by all branches, subsidiaries and affiliates within the Standard Chartered Group. Some of the SC Group Entities only act as representatives of Standard Chartered Private Bank and may not be able to offer products and services or offer advice to clients.



**Market Abuse Regulation (MAR) Disclaimer**

Banking activities may be carried out internationally by different branches, subsidiaries and affiliates within the Standard Chartered Group according to local regulatory requirements. Opinions may contain outright “buy”, “sell”, “hold” or other opinions. The time horizon of this opinion is dependent on prevailing market conditions and there is no planned frequency for updates to the opinion. This opinion is not independent of Standard Chartered Group’s trading strategies or positions. Standard Chartered Group and/or its affiliates or its respective officers, directors, employee benefit programmes or employees, including persons involved in the preparation or issuance of this document may at any time, to the extent permitted by applicable law and/or regulation, be long or short any securities or financial instruments referred to in this document or have material interest in any such securities or related investments. Therefore, it is possible, and you should assume, that Standard Chartered Group has a material interest in one or more of the financial instruments mentioned herein. Please refer to our Standard Chartered website under Regulatory disclosures for more detailed disclosures, including past opinions/ recommendations in the last 12 months and conflict of interests, as well as disclaimers. A covering strategist may have a financial interest in the debt or equity securities of this company/issuer. All covering strategist are licensed to provide investment recommendations under Monetary Authority of Singapore or Hong Kong Monetary Authority. This document must not be forwarded or otherwise made available to any other person without the express written consent of Standard Chartered Group.

**Sustainable Investments**

Any ESG data used or referred to has been provided by Morningstar, Sustainalytics, MSCI or Bloomberg. Refer to 1) Morningstar website under Sustainable Investing, 2) Sustainalytics website under ESG Risk Ratings, 3) MCSI website under ESG Business Involvement Screening Research and 4) Bloomberg green, social & sustainability bonds guide for more information. The ESG data is as at the date of publication based on data provided, is for informational purpose only and is not warranted to be complete, timely, accurate or suitable for a particular purpose, and it may be subject to change. Sustainable Investments (SI): This refers to funds that have been classified as 'ESG Intentional Investments – Overall' by Morningstar. SI funds have explicitly stated in their prospectus and regulatory filings that they either incorporate ESG factors into the investment process or have a thematic focus on the environment, gender diversity, low carbon, renewable energy, water or community development. For equity, it refers to shares/stocks issued by companies with Sustainalytics ESG Risk Rating of Low/Negligible. For bonds, it refers to debt instruments issued by issuers with Sustainalytics ESG Risk Rating of Low/Negligible, and/or those being certified green, social, sustainable bonds by Bloomberg. For structured products, it refers to products that are issued by any issuer who has a Sustainable Finance framework that aligns with Standard Chartered's Green and Sustainable Product Framework, with underlying assets that are part of the Sustainable Investment universe or separately approved by Standard Chartered's Sustainable Finance Governance Committee. Sustainalytics ESG risk ratings shown are factual and are not an indicator that the product is classified or marketed as "green", "sustainable" or similar under any particular classification system or framework.

**Country/Market Specific Disclosures**

**Bahrain:** This document is being distributed in Bahrain by Standard Chartered Bank, Bahrain Branch, having its address at P.O. 29, Manama, Kingdom of Bahrain, is a branch of Standard Chartered Bank and is licensed by the Central Bank of Bahrain as a conventional retail bank. **Botswana:** This document is being distributed in Botswana by, and is attributable to, Standard Chartered Bank Botswana Limited which is a financial institution licensed under the Section 6 of the Banking Act CAP 46.04 and is listed in the Botswana Stock Exchange. **Brunei Darussalam:** This document is being distributed in Brunei Darussalam by, and is attributable to, Standard Chartered Bank (Brunei Branch) | Registration Number RFC/61 and Standard Chartered Securities (B) Sdn Bhd | Registration Number RC20001003. Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18. Standard Chartered Securities (B) Sdn Bhd is a limited liability company registered with the Registry of Companies with Registration Number RC20001003 and licensed by Brunei Darussalam Central Bank as a Capital Markets Service License Holder with License Number BDCB/R/CMU/S3-CL and it is authorised to conduct Islamic investment business through an Islamic window. **China Mainland:** This document is being distributed in China by, and is attributable to, Standard Chartered Bank (China) Limited which is mainly regulated by National Financial Regulatory Administration (NFRA), State Administration of Foreign Exchange (SAFE), and People's Bank of China (PBOC). **Hong Kong:** In Hong Kong, this document, except for any portion advising on or facilitating any decision on futures contracts trading, is distributed by Standard Chartered Bank (Hong Kong) Limited ("SCBHK"), a subsidiary of Standard Chartered PLC. SCBHK has its registered address at 32/F, Standard Chartered Bank Building, 4-4A Des Voeux Road Central, Hong Kong and is regulated by the Hong Kong Monetary Authority and registered with the Securities and Futures Commission ("SFC") to carry on Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activity under the Securities and Futures Ordinance (Cap. 571) ("SFO") (CE No. AJI614). The contents of this document have not been reviewed by any regulatory authority in Hong Kong and you are advised to exercise caution in relation to any offer set out herein. If you are in doubt about any of the contents of this document, you should obtain independent professional advice. Any product named herein may not be offered or sold in Hong Kong by means of any document at any time other than to "professional investors" as defined in the SFO and any rules made under that ordinance. In addition, this document may not be issued or possessed for the purposes of issue, whether in Hong Kong or elsewhere, and any interests may not be disposed of, to any person unless such person is outside Hong Kong or is a "professional investor" as defined in the SFO and any rules made under that ordinance, or as otherwise may be permitted by that ordinance. In Hong Kong, Standard Chartered Private Bank is the private banking division of SCBHK, a subsidiary of Standard Chartered PLC. **Ghana:** Standard Chartered Bank Ghana Limited accepts no liability and will not be liable for any loss or damage arising directly or indirectly (including special, incidental or consequential loss or damage) from your use of these documents. Past performance is not indicative of future results and no representation or warranty is made regarding future performance. You should seek advice from a financial adviser on the suitability of an investment for you, taking into account these factors before making a commitment to invest in an investment. To unsubscribe from receiving further updates, please send an email to feedback . ghana @ sc . com. Please do not reply to this email. Call our Priority Banking on 0302610750 for any questions or service queries. You are advised not to send any confidential and/ or important information to Standard Chartered via e-mail, as Standard Chartered makes no representations or warranties as to the security or accuracy of any information transmitted via e-mail. Standard Chartered shall not be responsible for any loss or damage suffered by you arising from your decision to use e-mail to communicate with the Bank. **India:** This document is being distributed in India by Standard Chartered in its capacity as a distributor of mutual funds and referrer of any other third party financial products. Standard Chartered does not offer any 'Investment Advice' as defined in the Securities and Exchange Board of India (Investment Advisers) Regulations, 2013 or otherwise. Services/products related securities business offered by Standard Charted are not intended for any person, who is a resident of any jurisdiction, the laws of which imposes prohibition on soliciting the securities business in that jurisdiction without going through the registration requirements and/or prohibit the use of any information contained in this document. **Indonesia:** This document is being distributed in Indonesia by Standard Chartered Bank, Indonesia branch, which is a financial institution licensed and supervised by Otoritas Jasa Keuangan (Financial Service Authority) and Bank Indonesia. **Jersey:** In Jersey, Standard Chartered Private Bank is the Registered Business Name of the Jersey Branch of Standard Chartered Bank. The Jersey Branch of Standard Chartered Bank is regulated by the Jersey Financial Services Commission. Copies of the latest audited accounts of Standard Chartered Bank are available from its principal place of business in Jersey: PO Box 80, 15 Castle Street, St Helier, Jersey JE4 8PT. Standard Chartered Bank is incorporated in England with limited liability by Royal Charter in 1853 Reference Number ZC 18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. The Jersey Branch of Standard Chartered Bank is also an authorised financial services provider under license number 44946 issued by the Financial Sector Conduct Authority of the Republic of South Africa. Jersey is not part of the United Kingdom and all business transacted with Standard Chartered Bank, Jersey Branch and other SC Group Entity outside of the United Kingdom, are not subject to some or any of the investor protection and compensation schemes available under United Kingdom law. **Kenya:** This document is being distributed in Kenya by and is attributable to Standard Chartered Bank Kenya Limited. Investment Products and Services are distributed by Standard Chartered Investment Services Limited, a wholly owned subsidiary of Standard Chartered Bank Kenya Limited that is licensed by the Capital Markets Authority in Kenya, as a Fund Manager. Standard Chartered Bank Kenya Limited is regulated by the Central Bank of Kenya. **Malaysia:** This document is being distributed in Malaysia by Standard Chartered Bank Malaysia Berhad ("SCBMB"). Recipients in Malaysia should contact SCBMB in relation to any matters arising from, or in connection with, this document. This document has not been reviewed by the Securities Commission Malaysia. The product lodgement, registration, submission or approval by the Securities Commission of Malaysia does not amount to nor indicate recommendation or endorsement of the product, service or promotional activity. Investment products are not deposits and are not obligations of, not guaranteed by, and not protected by SCBMB or any of the affiliates or subsidiaries, or by Perbadanan Insurans Deposit Malaysia, any government or insurance agency. Investment products are subject to investment risks, including the possible loss of the principal amount invested. SCBMB expressly disclaim any liability and responsibility for any loss arising directly or indirectly (including special, incidental or consequential loss or damage) arising from the financial losses of the Investment Products due to market condition. **Nigeria:** This document is being distributed in Nigeria by Standard Chartered Bank Nigeria Limited (SCB Nigeria), a bank duly licensed and regulated by the Central Bank of Nigeria. SCB Nigeria accepts no liability for any loss or damage arising directly or indirectly (including special, incidental or consequential loss or damage) from your use of these documents. You should seek advice from a financial adviser on the suitability of an investment for you, taking into account these factors before making a commitment to invest in an investment. To unsubscribe from receiving further updates, please send an email to clientcare . ng @ sc . com requesting to be removed from our mailing list. Please do not reply to this email. Call our Priority Banking on 02 012772514 for any questions or service queries. SCB Nigeria shall not be responsible for any loss or damage arising from your decision to send confidential and/or important information to Standard Chartered via e-mail. SCB Nigeria makes no representations or warranties as to the security or accuracy of any information transmitted via e-mail. **Pakistan:** This document is being distributed in Pakistan by, and attributable to Standard Chartered Bank (Pakistan) Limited having its registered office at PO Box 5556, I.I Chundrigar Road Karachi, which is a banking company registered with State Bank of Pakistan under Banking Companies Ordinance 1962 and is also having licensed issued by Securities & Exchange Commission of Pakistan for Security Advisors. Standard Chartered Bank (Pakistan) Limited acts as a distributor of mutual funds and referrer of other third-party financial products. **Singapore:** This document is being distributed in Singapore by, and is attributable to, Standard Chartered Bank (Singapore) Limited (Registration No. 201224747C/ GST Group Registration No. MR-8500053-0, "SCBSL"). Recipients in Singapore should contact SCBSL in relation to any matters arising from, or in connection with, this document. SCBSL is an indirect wholly owned subsidiary of Standard Chartered Bank and is licensed to conduct banking business in Singapore under the Singapore Banking Act, 1970. Standard Chartered Private Bank is the private banking division of SCBSL. IN RELATION TO ANY SECURITY OR SECURITIES-BASED DERIVATIVES CONTRACT REFERRED TO IN THIS DOCUMENT, THIS DOCUMENT, TOGETHER WITH THE ISSUER DOCUMENTATION, SHALL BE DEEMED AN INFORMATION MEMORANDUM (AS DEFINED IN SECTION 275 OF THE SECURITIES AND FUTURES ACT, 2001 ("SFA")). THIS DOCUMENT IS INTENDED FOR DISTRIBUTION TO ACCREDITED INVESTORS, AS DEFINED IN SECTION 4A(1)(a) OF THE SFA, OR ON THE BASIS THAT THE SECURITY OR SECURITIES-BASED DERIVATIVES CONTRACT MAY ONLY BE ACQUIRED AT A CONSIDERATION OF NOT LESS THAN S$200,000 (OR ITS EQUIVALENT IN A FOREIGN CURRENCY) FOR EACH TRANSACTION. Further, in relation to any security or securities-based derivatives contract, neither this document nor the Issuer Documentation has been registered as a prospectus with the Monetary Authority of Singapore under the SFA. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the product may not be circulated or distributed, nor may the product be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons other than a relevant person pursuant to section 275(1) of the SFA, or any person pursuant to section 275(1A) of the SFA, and in accordance with the conditions specified in section 275 of the SFA, or pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. In relation to any collective investment schemes referred to in this document, this document is for general information purposes only and is not an offering document or prospectus (as defined in the SFA). This document is not, nor is it intended to be (i) an offer or solicitation of an offer to buy or sell any capital markets product; or (ii) an advertisement of an offer or intended offer of any capital markets product. Deposit Insurance Scheme: Singapore dollar deposits of non-bank depositors are insured by the Singapore Deposit Insurance Corporation, for up to S$100,000 in aggregate per depositor per Scheme member by law. Foreign currency deposits, dual currency investments, structured deposits and other investment products are not insured. This advertisement has not been reviewed by the Monetary Authority of Singapore. **Taiwan:** SC Group Entity or Standard Chartered Bank (Taiwan) Limited ("SCB (Taiwan)") may be involved in the financial instruments contained herein or other related financial instruments. The author of this document may have discussed the information contained herein with other employees or agents of SC or SCB (Taiwan). The author and the above-mentioned employees of SC or SCB (Taiwan) may have taken related actions in respect of the information involved (including communication with customers of SC or SCB (Taiwan) as to the information contained herein). The opinions contained in this document may change, or differ from the opinions of employees of SC or SCB (Taiwan). SC and SCB (Taiwan) will not provide any notice of any changes to or differences between the above-mentioned opinions. This document may cover companies with which SC or SCB (Taiwan) seeks to do business at times and issuers of financial instruments. Therefore, investors should understand that the information contained herein may serve as specific purposes as a result of conflict of interests of SC or SCB (Taiwan). SC, SCB (Taiwan), the employees (including those who have discussions with the author) or customers of SC or SCB (Taiwan) may have an interest in the products, related financial instruments or related derivative financial products contained herein; invest in those products at various prices and on different market conditions; have different or conflicting interests in those products. The potential impacts include market makers' related activities, such as dealing, investment, acting as agents, or performing financial or consulting services in relation to any of the products referred to in this document. **UAE:** DIFC – Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18.The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. Standard Chartered Bank, Dubai International Financial Centre having its offices at Dubai International Financial Centre, Building 1, Gate Precinct, P.O. Box 999, Dubai, UAE is a branch of Standard Chartered Bank and is regulated by the Dubai Financial Services Authority ("DFSA"). This document is intended for use only by Professional Clients and is not directed at Retail Clients as defined by the DFSA Rulebook. In the DIFC we are authorised to provide financial services only to clients who qualify as Professional Clients and Market Counterparties and not to Retail Clients. As a Professional Client you will not be given the higher retail client protection and compensation rights and if you use your right to be classified as a Retail Client we will be unable to provide financial services and products to you as we do not hold the required license to undertake such activities. For Islamic transactions, we are acting under the supervision of our Shariah Supervisory Committee. Relevant information on our Shariah Supervisory Committee is currently available on the Standard Chartered Bank website in the Islamic banking section. For residents of the UAE – Standard Chartered UAE ("SC UAE") is licensed by the Central Bank of the U.A.E. SC UAE is licensed by Securities and Commodities Authority to practice Promotion Activity. SC UAE does not provide financial analysis or consultation services in or into the UAE within the meaning of UAE Securities and Commodities Authority Decision No. 48/r of 2008 concerning financial consultation and financial analysis. **Uganda:** Our Investment products and services are distributed by Standard Chartered Bank Uganda Limited, which is licensed by the Capital Markets Authority as an investment adviser. **United Kingdom:** In the UK, Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. This communication has been approved by Standard Chartered Bank for the purposes of Section 21 (2) (b) of the United Kingdom's Financial Services and Markets Act 2000 ("FSMA") as amended in 2010 and 2012 only. Standard Chartered Bank (trading as Standard Chartered Private Bank) is also an authorised financial services provider (license number 45747) in terms of the South African Financial Advisory and Intermediary Services Act, 2002. The Materials have not been prepared in accordance with UK legal requirements designed to promote the independence of investment research, and that it is not subject to any prohibition on dealing ahead of the dissemination of investment research. **Vietnam:** This document is being distributed in Vietnam by, and is attributable to, Standard Chartered Bank (Vietnam) Limited which is mainly regulated by State Bank of Vietnam (SBV). Recipients in Vietnam should contact Standard Chartered Bank (Vietnam) Limited for any queries regarding any content of this document. **Zambia:** This document is distributed by Standard Chartered Bank Zambia Plc, a company incorporated in Zambia and registered as a commercial bank and licensed by the Bank of Zambia under the Banking and Financial Services Act Chapter 387 of the Laws of Zambia.