



Award Winner

## Retirement Under the Eternal Blue Sky: Nest Eggs or Lifeboats? Financial, Housing, and Health Strategies

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### ENTERING THE GOLDBLOCKS RISK ZONE

Climate change can be thought of as a slow burning, compounding, accelerating risk that hits what can be called a Goldilocks' Zone between too short a time and too long a time in regard to its relevance. . Actuaries specialize in this type of Goldilocks Risk Zone handling slow burning, compounding risks on a daily basis in the insurance and retirement spaces.

In retirement planning, there are fundamental concepts such as compounding interest or mortality tables. But in a world with wildfire smoke , where rivers can run dry, and coastlines retreat, other factors are now relevant. As a result, we must ask whether the savings and plans we build are true nest eggs for a long rest or lifeboats for survival in a brutal tomorrow. The risk is not only that the storms may arrive earlier than expected, but that their sting, as actuaries have noted in other contexts, may prove far more severe than the early signs suggest.<sup>1</sup>

This article explores how climate change reshapes retirement planning across three interdependent pillars: investments, housing, and health. Drawing on real-world, geographically diverse illustrative examples, from dzud-stricken herders in Mongolia to Fijians displaced by king tidal waves, from Arctic real estate investors eyeing the emerging Arctic Silk Road to residents near Congo's limnic eruption zones, it highlights both financial and human consequences. Each section pairs clear analysis with practical, locally grounded mitigation strategies, illustrating how a single climate event can reverberate through portfolios, homes, and personal well-being.

The aim is not only to map the hazards but to consider how stakeholders can chart a course that preserves dignity and security, even under skies that may be changing.

Investment objectives are rarely uniform, even among people of similar ages or incomes. Climate change may magnify these differences rather than blurring them. Someone retiring this year has a very different exposure than

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<sup>1</sup> Institute and Faculty of Actuaries. "Climate Scorpion – The Sting Is in the Tail." March 14, 2024. <https://actuaries.org.uk/news-and-media-releases/news-articles/2024/mar/14-mar-24-climate-scorpion-the-sting-is-in-the-tail/>

someone planning to step away from work two decades from now. Mid-career ambitious professionals chasing the goal of buying the commodity of financial independence and avoiding over-saving under a Die With Nothing (DIE)<sup>2</sup> and FIRE mindset are navigating a separate risk set entirely. Time horizons, the structure of savings pool, investment strategies, and the macroeconomic context of one's country all alter the degree and nature of vulnerability. One size does not fit all. Recognizing these distinctions is essential because climate change may impact investment returns and at the same time, may reshape an individual's retirement strategy.

### SHIFTING SANDS OF MARKET RISK IN SHIFTING CLIMATE

Financial markets have always moved in cycles, but climate change may inject a different type of volatility, one that does not reset after a fiscal quarter or a business cycle. For retirees and those approaching retirement, the implications are structural rather than temporary. Climate events may impact productive assets, disrupt supply chains, and shift capital flows across sectors and geographies. Insurance losses can mount, agricultural yields may swing unpredictably, and physical risks compound into transition risks as industries adapt or collapse. These force a ripple into pension fund performance, equity valuations, and the cost of capital. Inflation may be fueled not only by monetary policy, but possibly by scarcity of water, arable land, or rare minerals.

The traditional retirement portfolio assumes that historical correlations and returns offer some guide to the future. Yet with climate risk, historical data may lose some reliability. Companies facing physical threats to their operations may also see higher financing costs, credit downgrades, and shrinking market share. Industries viewed as climate-resilient today may falter if technology or regulation moves against them, while others positioned for adaptation and mitigation could emerge as unexpected leaders. Actuaries building long-term asset models could benefit from stress-testing not just economic downturns, but decades-long shifts in productivity, demographic migration, and resource availability.

A climate-linked downturn in housing markets, a spike in insurance costs, or persistent inflation driven by resource scarcity could compress retirement timelines and force portfolio reallocations midstream. Environmental, Social, and Governance (ESG) disclosures, though increasingly common, may lack the granularity to guide individual retirees. Climate-related financial disclosures incorporating location-specific and sector-specific exposure metrics potentially can meaningfully inform personal investment choices.

Even in optimistic scenarios where climate adaptation is swift, the transition may require large-scale reallocation of capital, which can depress returns. For actuaries advising pension funds or modeling personal retirement plans, the question on climate risk affecting returns will be how deeply and over what horizon. The Goldilocks Zone in which these risks play out is already here: too near to ignore, yet too gradual for markets to price fully until the impacts become unavoidable.

Table 1 provides hypothetical illustrations of how climate-linked disruptions, from shifting trade routes to resource scarcity, can alter retirement investment landscapes worldwide.

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<sup>2</sup> DIE here refers to Die with Nothing investment philosophy. FIRE is Financial Independence Retire Early. As the names suggest, these are investment objectives to quickly earn and save enough to be able to quit work early on in life and avoid over-saving and preferring to die with nothing rather than grand mansions.

**Table 1**

**CLIMATE-LINKED DISRUPTIONS ALTER RETIREMENT INVESTMENT LANDSCAPES**

Person	Investment Goal	Impact of Climate Change	Potential Risk Mitigation Steps
Retiree in Arctic port town (Norway)	Acquire early “prime” real estate along emerging Arctic Silk Road trade routes	Melting ice opens shipping lanes and boosts property values, but also exposes area to invasive pathogens, unstable permafrost, and costly infrastructure upgrades	Hedge with diversified holdings outside the Arctic; budget for high maintenance costs; consider insurance for climate-specific hazards
DIE-minded software engineer in Sydney	Maximize spending during life while maintaining minimal retirement cushion	Increasing frequency of king tidal waves in Pacific islands drives real estate demand and prices up in safe Australian zones, making planned spending patterns unsustainable	Adjust DIE plan for climate-driven inflation; hold partial property stake to offset rising rents
Mid-career agribusiness owner in Amazon Basin	Expand farmland holdings for export crops	Increasing droughts and fire seasons reduce yields, disrupt logistics, and devalue land	Diversify into climate-resilient crops; invest in irrigation; acquire land in multiple microclimates
Fisherman-turned-investor in Coastal Vietnam	Build retirement from fishing profits and coastal property investments	Tsunami risk and storm surge damage to ports and housing depress property values and fishing infrastructure	Shift capital toward inland assets; invest in aquaculture with inland tank systems

**SHELTER IN THE STORM: HOUSING AMID CLIMATE UNCERTAINTY**

If finance is about protecting capital, housing is about protecting the self. A home is often a retiree’s largest asset, but climate change can transform it from a source of security into a liability. Housing has always been a cornerstone of retirement security, whether as a fully paid-off residence reducing monthly expenses, an appreciating asset adding to net worth, or an emotional anchor that provides continuity in later life. Climate change may alter each of these roles. Rising seas, stronger storms, wildfires, and extreme heat reshape where it is safe to live, how much it costs to insure a home, and even whether a home can remain habitable over the course of a retirement.

These shifts affect more than property values on paper. If a retiree’s main asset is a home in a high-risk region, a climate event can simultaneously erode net worth, create relocation costs, and spike insurance premiums. For those still paying a mortgage, disasters can force expensive repairs at the same time as income is reduced or disrupted. In some cases, housing designed for “aging in place” becomes impractical, not because of the resident’s health, but because the surrounding environment has become inhospitable or unsafe.

Insurance markets are already adjusting. In some regions, coverage is being withdrawn entirely or priced at levels that effectively force people to self-insure. This can leave retirees with difficult choices between maintaining coverage, reducing other expenses, or accepting greater financial risk. Governments may step in with disaster aid, but such assistance is often limited, slow, or insufficient for full recovery.

These pressures can be especially destabilizing for retirees who had intended to pass property on to heirs. A home that was meant to be a legacy can become a liability if its location becomes unviable or its market collapses.

Similarly, those relying on rental properties for income may find demand drying up in areas facing repeated climate hazards.

Planning for housing in retirement now requires a dual perspective: location and adaptability. Prospective retirees can benefit from evaluating whether the places they plan to live or invest in can withstand projected climate conditions over the next 20 to 30 years. For existing homeowners, this may mean retrofitting to improve resilience, diversifying assets so housing is not the sole store of wealth, and maintaining liquidity to respond quickly if relocation becomes necessary.

Table 2 lists diverse hypothetical examples of housing scenarios showing how climate change can erode home security, force relocation, and reshape retirement living plans.

**Table 2**  
**HOW CLIMATE CHANGE CAN ERODE RETIREMENT LIVING**

Person	Housing Situation	Impact of Climate Change	Potential Risk Mitigation Steps
Livestock herder in rural Mongolia	Winter home in steppe valley, summer pastures in highlands	Dzud events (extreme winter storms) wipe out herds, forcing sale of home and migration	Diversify income sources; install fodder storage and windbreaks; join cooperative insurance scheme
Retiree from Fiji now in Brisbane	Migrated after rising sea levels and king tidal waves rendered village uninhabitable	Sudden influx of migrants into Australian cities drives property price spikes and competition for rentals	Buy property early in lower-risk inland suburbs; maintain disaster migration contingency savings
Farmer in Gilgit-Baltistan, Pakistan	Multi-generational home on valley floor near glacier melt river	Risk of Glacial Lake Outburst Flood (GLOF) from melting ice destroying property	Relocate to higher elevation; invest in flood barriers and ice stupa water management
Smallholder in Central Java	Home near volcano base in fertile farming zone	Lahar flows from heavy rainfall + volcanic ash threaten complete destruction	Relocate housing above lahar pathways; build community early-warning network

### CLIMATE IMPACT ON HEALTH IN RETIREMENT

Climate change impacts health in retirement in subtle and direct ways. Rising temperatures exacerbate cardiovascular and respiratory conditions, and wildfire smoke lingers far beyond its source. More frequent floods or hurricanes interrupt access to hospitals, delay the delivery of medications, and strain insurance networks.

These risks extend beyond individual health to financial well-being. Medical costs rise when emergencies strike outside normal insurance coverage zones. In extreme cases, survival takes precedence over all other financial or lifestyle priorities, erasing any long-term planning assumptions.

Health resilience in the face of climate change may involve both personal preparation and systemic adaptation. For individuals, this can mean investing in home modifications such as improved insulation, air filtration, and backup power for medical devices. For other stakeholders, it means planning for surges in demand and disruptions in supply chains. The challenge is to prepare for health risks that are not isolated incidents but might recurring realities at any season.

Hypothetical examples in Table 3 illustrate how climate-driven health risks can strike suddenly or silently, compounding the challenges of aging and long-term care.

**Table 3**  
**CLIMATE-DRIVEN HEALTH RISKS AND LONG-TERM CARE**

Person	Primary Health Concern	Impact of Climate Change	Potential Risk Mitigation Steps
Resident near Lake Kivu, Congo	Cardiovascular and respiratory vulnerability	Limnic eruption could release CO <sub>2</sub> cloud, causing mass asphyxiation	Relocate from high-risk lakeshore zones; maintain evacuation plan and respiratory gear
Rural villager near Tonlé Sap, Cambodia	Dependent on untreated lake water	Limnic eruption risk from deep stratified waters threatens both air and water safety	Diversify water sources; install air quality alarms; seasonal relocation during risk peaks
Retiree in Lahore, Pakistan	Asthma and hypertension	Prolonged smog season plus dengue outbreaks strain respiratory and immune health	Install air filtration; vaccinate and maintain mosquito control measures; relocate seasonally during smog peaks
Elder in Sahara fringe region (Mauritania)	Heat-sensitive cardiac condition	Desertification and extreme heatwaves increase cardiovascular events	Retrofit home with passive cooling; coordinate with mobile health units; plan for periodic relocation

**CONCLUSION: PLANNING BEYOND THE HORIZON**

Retirement planning has always been about preparing for uncertainty, but the uncertainty that climate change introduces may be of a different order. It may shift the baseline assumptions we have often been relied upon: that property values in desirable areas will hold, that investments will be shaped primarily by economic cycles, and that health risks will be driven mostly by age rather than the climate.

Finance, housing, and health are not separate silos in this context. They are interconnected pillars, each vulnerable to the same environmental forces. A storm that damages a home can also disrupt medical care and force the premature liquidation of investments. Inflation sparked by climate-related supply shortages can raise both living and healthcare costs. What begins as a local event can ripple into every aspect of retirement security.

The core question, whether our retirement plans are nest eggs for comfort or lifeboats for survival, cannot be answered in the abstract. It depends on where we live, the assets we hold, our health status, and the support systems we can rely on. One size will not fit all. The same storm may strike differently at different stages of life and in different corners of the world.

What is clear is that the cost of inaction may likely be higher than the cost of preparation. Even modest adjustments, such as diversifying investments, upgrading housing resilience, and maintaining climate contingency savings, may make a meaningful difference.

While there is no ‘perfect’ retirement, for some, retirement will still be a nest egg, a season of comfort. For others, it may be a lifeboat, holding steady in waters that will keep rising. The horizon is moving. Our plans must move with it.



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