

Will the Arithmetic of Failure Derail Your Clients' Golden Years?

How obsolete retirement planning can turn the Great Wealth Transfer into the Great Wealth Mirage

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Author's note: This paper is a revised version of "Is Our Industry Prepared For Retirees Living Longer?" and reflects updated thinking on the topic.

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Introduction

There is a widely held belief in the financial services industry and among the generations who stand to benefit from it, that the Great Wealth Transfer represents one of the most significant economic events of our lifetime.

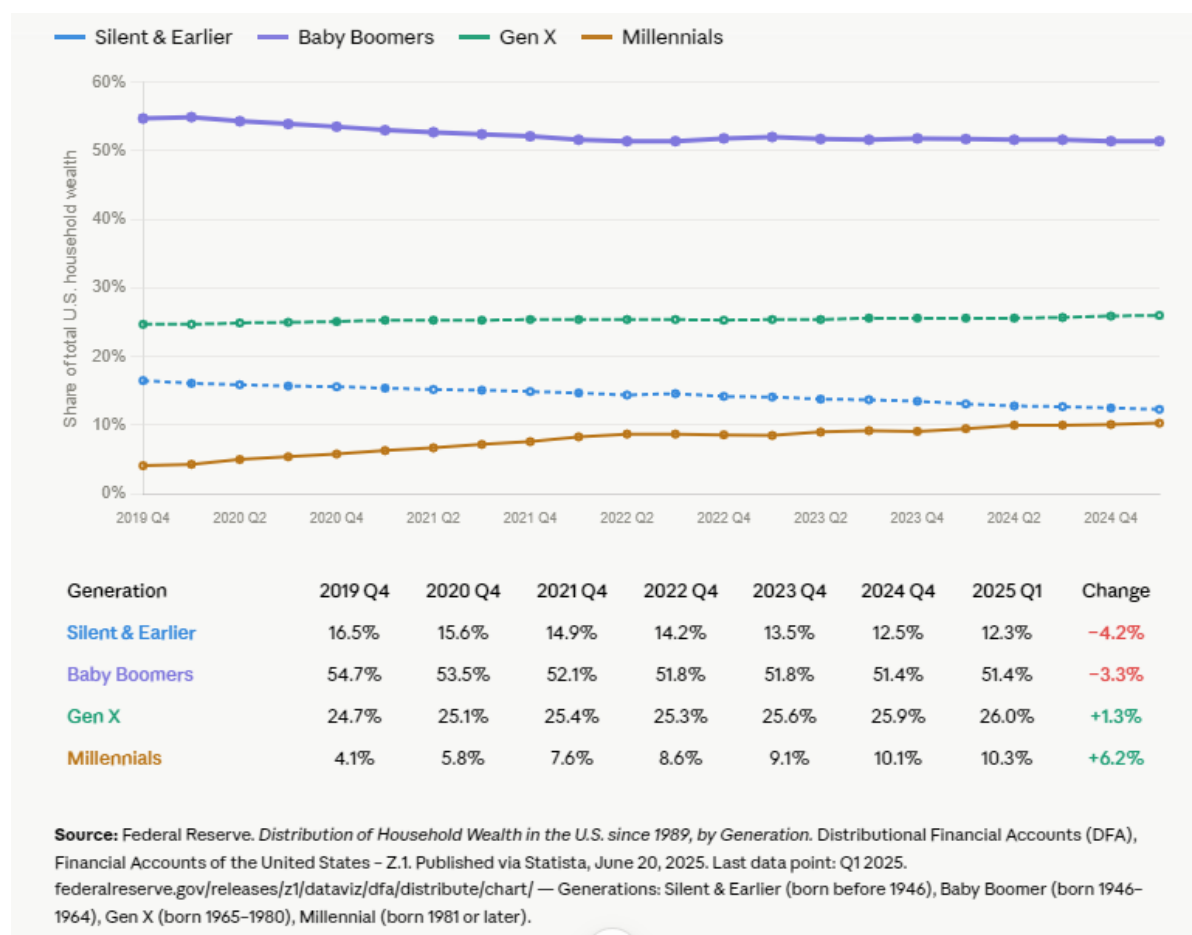
The media writes about it, our industry eagerly awaits it, while younger generations have quietly built it to their own financial expectations. With Baby Boomers holding an estimated 51.5% of the wealth in this country (1), the argument makes complete sense. When this generation passes, that accumulated wealth will flow to the generations that follow, potentially the largest transfer of assets in human history.

It is a compelling story.

It is also, I believe, a story that mathematics does not support.

Distribution of Household Wealth in the U.S. Since 1989

Figure 1: Statista, 2025. For illustrative purposes only



The Federal Reserve's Distributional Financial Accounts show that a concentration of American wealth is only beginning to shift and shift slowly. As of the first quarter of 2025, Baby Boomers control 51.4% of all household wealth in the United States, a figure that has declined only modestly from 54.7% in 2019.

Meanwhile, Millennials, who represent a nearly equal share of the American population, have increased their wealth from 4.1% to 10.3% over the same period. It is a meaningful gain on paper, but it leaves them holding barely a fifth of what Boomer's control. Gen X has made modest progress, rising from 24.7% to 26%, while the Silent Generation's share has steadily declined as that group has entered its final years.

The numbers imply wealth in motion, just as we have discussed for a decade now.

But is there a better set of assumptions on which our industry can more fully focus?

Our current assumption is that Boomers will live finite lives, spend their assets at a predictable rate, and pass the remainder to their heirs in a transfer described as the greatest in history. But let us stop for a minute to consider: What happens to that transfer if Boomers live decades longer than planned, invest under our industry's retirement assumptions, and their planning falls short of their actual life spans?

What if, with a longer life span, the math our industry is using to build portfolios means clients will arrive at the end of life with far less to give than anyone anticipated, and, potentially, with nothing?

What the industry has long called the Great Wealth Transfer may turn out to be **the Great Wealth Mirage**, a number that looks certain on paper until the years keep adding up and it is simply no longer there.

For me, this question is not theoretical.

It is the foundation of everything that follows.

The conventional explanation for why the Great Wealth Transfer may fall short centers primarily on health-care costs, the expense of long-term care, and the financial burden of living longer with more illness.

It is a reasonable argument, and one that has received a great deal of attention in recent years. It makes people like me think harder about what we do as asset managers and what financial advisors do as wealth managers.

The premise is simple:

We, as an industry, may be directing our attention to the wrong villain entirely, because the evidence increasingly suggests that science and artificial intelligence are on the verge of fundamentally altering the healthcare cost equation.

We are talking about **healthspan**, not just lifespan.

Anthropic CEO Dario Amodei, in his landmark 2024 essay, projected that powerful artificial intelligence will eliminate most diseases, including cancers and Alzheimer's, within 7 to 12 years of its development.

It seems this 7-to-12-year estimate may be here sooner than we think, as AI advancement has been exponential of late.

Want evidence that this could be a reality, and AI is moving faster than even Dario Amodei projected two years ago?

In May 29, 2026, Wall Street Journal article entitled, *A Famous Math Problem Stumped Humans for 80 Years. AI Just Cracked It*, caught my attention. It described how an OpenAI model resolved the unit distance problem, a puzzle in combinatorial geometry that had defeated generations of the world's most accomplished mathematicians. It did this autonomously, without a single human scribbling an equation, and it produced proof that was so compelling that Fields Medal winner Timothy Gowers said he would

have recommended it for publication in one of mathematics' most prestigious journals without hesitation.

The same computational ability that identified a pattern invisible to human minds for eight decades can now be directed at the complexity of human disease, and the implications for how long people may actually live, happy and with long healthspans, could be profound.

Anthropic's chief executive has stated his belief that AI will discover cures for diseases that have resisted every human effort to crack them, and if the unit distance problem teaches us anything, it is that the final equation in an almost century-long puzzle could arrive suddenly, without warning, and from a source no one anticipated. However, such outcomes remain uncertain and may not occur as projected.

The retired clients sitting across the table from us today may live inside that breakthrough, which means the retirement plans we are building for them must be prepared for a healthspan and lifespan that no historical financial model has ever had to account for.

Which brings us to the more difficult and more important question. **If healthcare is not the primary reason the Great Wealth Transfer will not occur as anticipated, what is?**

The premise points to an answer that is deeply uncomfortable for our profession because it places a significant measure of responsibility directly on the financial planning industry itself.

For decades, our industry has built retirement portfolios around a model designed for a world in which retirement lasted 20 to 25 years. That model reflected exactly what it should have at the time. The strategies it produced were conservative allocations, bucket approaches, fixed income vehicles, and the 4% withdrawal rule, all of which might have been entirely appropriate for the retirement expectations that existed when they were recommended to clients.

The problem is that the retirement landscape may be changing in a completely dynamic and profound manner, and our planning mathematics has not kept pace with that change.

Today's 65-year-old may live another fifty years.

Maybe more. While current actuarial life expectancy estimates are substantially lower, emerging developments in longevity research have led some researchers to speculate that future generations may live significantly longer than historical norms.

And a portfolio that was built for a twenty to twenty-five-year retirement may not survive a fifty-plus-year one, not because of market crashes or catastrophic illness, but because of the quiet, compounding, mathematically inevitable erosion that even modest inflation inflicts on a portfolio that was never designed to sustain purchasing power across five or more full decades.

Think about what that arithmetic actually produces in practical terms. A couple retiring today, spending at entirely normal levels, will consume an estimated almost \$2.6 million on food alone over a fifty-year retirement.

A portfolio earning a net 4% annual return, which our industry has long considered prudent and protective, could be completely exhausted by year thirty-four.

Even a net 5% return, which many would consider adequate in retirement, could near failure by year forty-three. These outcomes assume a steady 2% inflation rate and are not worst-case Monte Carlo projections.

They are the mathematical consequence of applying a twenty-year planning model to a fifty-year-plus problem.

This paper, with new information and insights based on our foundational paper, *Is Our Industry Prepared for Retirees Living Longer*, will present seven interconnected findings that together form what we believe is a compelling mathematical case for why the Great Wealth Transfer may not occur as anticipated, and why the financial planning profession bears a responsibility to confront this reality before generations of retirees outlive the plans we built for them.

We will show why we believe the traditional understanding of sequence risk is dangerously incomplete, and that being overly conservative in the early years of retirement creates its own form of sequence risk that slowly and inevitably depletes retirement resources in what we call the **Retirement Investment Paradox**.

We will also introduce the concept of **Sequence of Inflation Risk**, showing that the timing of inflationary periods across a retirement is important for portfolio survival. Even with two clients experiencing identical average inflation rates, the timing of market downturns results in dramatically different financial outcomes, depending entirely on when that inflation appears.

We will also present the **Longevity Inflation Impact**, our finding that while the returns required to sustain a fifty-year retirement increase in a linear progression with inflation, the pace of portfolio depletion when those returns are not achieved could accelerate exponentially, meaning that what appears to be a modest shortfall in returns could produce a catastrophic acceleration toward portfolio failure.

In addition, we will establish a term we've coined: **The Target Sustainability Rate**, which suggests that potentially, even under the Federal Reserve's own 2% inflation target, we believe a retirement portfolio may require a minimum net return of 6% to survive fifty years of withdrawals, a threshold that most conventionally structured retirement portfolios might not be designed to reach.

From this finding, we will show how we derive the **Retirement Real Return Rule**, which suggests that sustainable retirement planning may not fundamentally be about achieving any specific nominal return, but rather about maintaining a spread of 4 to 5 percentage points above the prevailing inflation rate over the full duration of retirement.

That single mathematical relationship makes most of what our industry calls conservative planning insufficient for the retiree who may live another fifty years.

And finally, we will introduce **Multi Generation Retirement**, perhaps the most far reaching concepts of this research, which describes the cascading effect that occurs when one generation's retirement assets are depleted by obsolete planning, forcing the financial burden onto the next generation, which must simultaneously fund its own retirement while supporting parents and potentially grandparents who outlived their assets, ultimately eliminating the inheritance that was supposed to occur during the Great Wealth Transfer.

The point in this paper is that, as an industry, we need to be aware that wealth may not be consumed by illness. It may be eroded year-by-year by longer healthspans, by an industry that may still be using twenty-year tools to solve a fifty-year-plus problem.

This paper is our attempt to change that.

Is Our Industry Prepared for Retirees' Longer Lifespans?

Imagine if you were 120 years old.

When I first read an article suggesting that within the next 50 years, it will not be uncommon for people to live to be 120 or even 130 years old, I was horrified.

Why would I ever want to do that?

My feelings about living to that age include decades of immobility, doctors, lots of pills, no hair, pain, and all the other attributes I associate with being "old." I felt I would burden my children and not add much value to their lives, not because I did not want to, but because I simply could not.

As I read the article further, I learned about the excellent quality of life that will be available at those ages. It spoke about advancements in science and genetics that make living at that age enjoyable, active, and fulfilling.

You see, I learned the difference between healthspan and lifespan, two words that may sound nearly identical but mean something entirely different, and once I understood the difference, it all became very clear for me.

Lifespan is how long you live.

Healthspan is how long you live well, before illness may begin to debilitate you.

A person can have a lifespan of 95 years and a healthspan of 68, meaning they spend nearly three decades alive but not truly living, as most of us picture when we imagine a long and rewarding retirement.

Healthspan is the number of years I spend enjoying all the things I enjoy today. It is a time I am active, relevant, social, and making a difference to my family and my community.

It is the amount of time I am having fun!

I felt better about the prospects of this proverbial fountain of youth, but it got me thinking.

The financial planning industry has spent generations building models around lifespan, around the number of years a client is expected to breathe, without asking the far more important question of how many of those years they might spend in good health, and how many they might be spending down every asset they ever accumulated just to get through the day.

If I lived that long, while physically I might live a comfortable life, would I be ready financially? My retirement planning thus far had borne little resemblance to the brave new world I was facing.

I started thinking about the effects of living 50 or more years past retirement, and it did not take long for the horror of what even a 2% inflation rate compounded over that longer period would do to my retirement.

I was amused when I started thinking about the amount of assets I would need for food in retirement, until that number seemed to be over \$2.6 million for both my wife and me.

At this moment, my thoughts turned to retirement portfolios and traditional investment wisdom. Throughout my career, the financial services industry has taught us that portfolios should become more conservative as clients age. The concept was sound because we wanted to protect assets when clients needed them most.

When we change our assumptions and look at portfolios that must last a retirement spanning five or six decades, we see something that may be startling. An overly conservative investment approach could be as damaging to portfolio longevity as poor market returns early in retirement.

This challenges our fundamental understanding of sequence risk. The industry has long focused on protecting portfolios from market downturns in early retirement years. Yet our research shows that insufficient returns over extended periods create their own form of sequence risk. One that slowly but inevitably depletes retirement resources.

I examined various portfolio allocations across different time horizons to quantify this effect. The results proved concerning. Portfolios structured according to traditional conservative allocation models showed high probabilities of depletion well before these extended retirement periods concluded.

A **retirement investment paradox** emerged, and an **inflation sequence risk** that could not be ignored.

This realization led us to conduct extensive research on retirement in this new paradigm. Our findings suggest reconsidering some assumptions about retirement planning and exploring why traditional approaches may not fully support retirees' long-term financial security.

Could the First Person to Live to be 150 Years Old be Alive Today?

The Bet

In 2000, Steven Austad, a biogerontologist known for his research on aging, made a famous bet with fellow scientist Jay Olshansky about human longevity. The bet was about whether someone born before 2001 would live to be 150 by the year 2150.⁽²⁾

The bet was for \$500 in 2000, which was then invested with the idea that it would grow to about \$500 million by 2150 and be inherited by their heirs. Austad bet that someone alive in 2000 would live to be 150 by 2150, while Olshansky bet against this possibility.

Austad's optimism was partly based on rapid progress in understanding the biology of aging and in developing potential interventions to slow or, even more remarkably, reverse it.

But Austad is not alone.

Lifespan: Why We Age-and Why We Do Not Have To

In his iconic 2019 book, *Lifespan: Why We Age-and Why We Don't Have To*, David A. Sinclair, PhD, AO,

appears to agree with Austad. Sinclair, professor of genetics at Harvard Medical School and director of the Paul F. Glenn Center of Aging Research at Harvard, says:

"And so most of us, when we think about living to 100, still think 'God forbid,' because we've seen what those final decades look like, and for most people, most of the time, they don't look appealing at all. Ventilators and drug cocktails. Broken hips and diapers. Chemotherapy and radiation. Surgery after surgery after surgery. And hospital bills; my God, the hospital bills."

He goes on to say:

"But what if it didn't have to be that way? What if we could be younger longer? Not years longer but decades longer. What if those final years didn't look so terribly different from the years that came before them? And what if, by saving ourselves, we could also save the world?"

Sinclair presents a revolutionary perspective on aging, challenging the historical view of aging as an inevitable process, similar to changing seasons. Sinclair argues that aging should be seen as a treatable condition, potentially easier to address than complex diseases like cancer.

He suggests that universal regulators of aging exist across species, from yeast to humans, and can be influenced by interventions such as NMN supplementation, vigorous exercise, or dietary changes. Drawing parallels to historical medical breakthroughs like germ theory and vaccinations, Sinclair suggests that understanding aging mechanics could significantly extend human health and lifespan. He proposes that with the right approach, the reversal or significant slowing of aging might be more achievable than previously thought.

Dario Amodei – CEO of Anthropic

In 2024, Dario Amodei published an extensive 15,000-word essay titled "Machines of Loving Grace: How AI Could Transform the World for the Better." Amodei serves as CEO of Anthropic, a San Francisco-based company focused on AI safety and research that aims to develop reliable, beneficial AI systems.

In his essay, Amodei presented bold predictions about artificial intelligence's potential impact on human longevity and health. He projected that "powerful AI" would eliminate most diseases, including cancers and Alzheimer's, within 7-12 years of its development.

Additionally, he anticipated AI would create breakthrough treatments for mental health conditions within 5-10 years. According to Amodei, these medical advances would ultimately lead to humans living significantly longer lives, with average lifespans potentially reaching 150 years, double the current life expectancy.

These predictions are consistent with emerging trends in longevity research and biomedical AI applications. Scientists at institutions like Harvard Medical School and the Buck Institute for Research on Aging have already demonstrated success in reversing aging in mice through genetic and cellular manipulation.

Major technology companies and research institutions are investing billions in AI-powered drug discovery and personalized medicine platforms. The convergence of artificial intelligence, genetic engineering, and regenerative medicine could indeed revolutionize human health and lifespan.

Morgan Stanley Research

In its May 22, 2024, research report, *The New Technologies for Longer, Healthier Lives*, Morgan Stanley

Research highlights 10 "longshot" technologies poised to significantly extend human lifespans and improve quality of life in the coming decades. These innovations range from AI-driven drug discovery and reproductive technologies to bioprinting for organ transplants and cell reprogramming for personalized medicine.

The report suggests that some emerging therapies could extend the human healthspan by 10% to 15% in the near future, potentially adding decades to life expectancy.

These advancements aim not just at treating diseases but at fundamentally altering the aging process itself.

The implications of these technologies extend beyond health, potentially reshaping economic landscapes and investment opportunities. From a projected \$105 billion market for obesity drugs by 2030 to a potential \$140 billion market for targeted cancer therapies, these innovations promise to transform multiple fields.

While many of these technologies are still in the early stages and face regulatory challenges, their development signals a paradigm shift in how we approach aging and longevity, with far-reaching consequences for society, healthcare, and the global economy.

Financial Services Industry in Need of a Response.

In our view, the financial services industry remains remarkably unprepared for the possibility of 120 to 150-year lifespans, creating a potential economic devastation for future centenarians. Traditional retirement planning, pension systems, and Social Security are still built on outdated assumptions about 80 to 90-year lifespans and retirement at age 65.

We believe, investment firms generally continue to recommend portfolio allocations and withdrawal rates that would leave individuals financially destitute if they lived to be 100 or older.

Most concerning is that in our opinion personal retirement savings strategies, generally promoted by financial advisors, typically aim to sustain retirees for only 20-25 years post-retirement, potentially leaving them without adequate financial resources for 40 to 50 years of life. The implications of this systemic unpreparedness could affect millions of people, and they could outlive their retirement savings by decades, creating an unprecedented economic and social crisis.

Social security systems worldwide, already strained, could collapse under the weight of supporting a population living potentially twice as long as they were initially designed to support. Without immediate and dramatic changes in how we think about financial planning for retirees, extended human longevity could transform from a scientific triumph into an economic disaster.

How Our Industry Has Changed

I was taught the age-based asset allocation strategy when I entered the financial services industry. This simple approach recommended that an investor hold a percentage of fixed-income assets equal to their age, with the remaining portion invested in stocks. This resulted in a gradual decrease in stock allocation as the investor grew older to reduce risk.

At age 65, our client would have 65% in fixed income and 35% in equities, with the equity portion

declining as they age. This worked for us back then because we only solved for one retirement risk — Sequence Risk.

For the most part, our 65-year-old retiree was not anticipated to live much longer than a decade or two past retirement, so focusing on sequence risk made the most sense.

The Effect of Inflation if We Live Longer

The Federal Reserve has established a target inflation rate of 2%. It is important to note that this does not mean the Fed is pursuing a zero-inflation policy. This intentional target, designed to maintain economic stability, creates a fundamental challenge for retirement planning, which merits deeper examination.

Our analysis focuses specifically on how this targeted inflation rate affects retirees over extended time horizons, as increasing longevity pushes retirement periods to 40 or 50 years.

This research addresses a critical question facing the financial services industry. How does the Federal Reserve's 2% inflation target affects retirement resources when retirement spans four or five decades?

Understanding the magnitude of this impact is essential for financial professionals who must develop strategies to maintain their clients' purchasing power during extended retirement periods. The compounding effect of even this modest inflation target over such lengthy periods may change how we approach retirement planning.

Grande or Venti?

Imagine your client is a big Starbucks fan who has just retired. You are asked to create a fixed budget for Grande lattes. Let us assume the current price is \$4.45, so you budget \$1,624 per year for your client's daily Grande latte habit.

However, as time passes, the Fed's target 2% inflation begins to affect the price of their latte and the purchasing power of your fixed coffee budget. Let us see how this plays out over time:

1. Year 1

Their \$1,624 buys them 365 lattes, one for every day of the year.

2. Year 10

Their budget now only buys 298 lattes. They must go without their latte for 67 days of the year.

3. Year 20

They can now afford 244 lattes, having missed out for 121 days, or about 4 months of the year.

4. Year 30

Their budget stretches to just 199 lattes. They will be without their daily latte for 166 days, nearly half the year.

5. Year 40

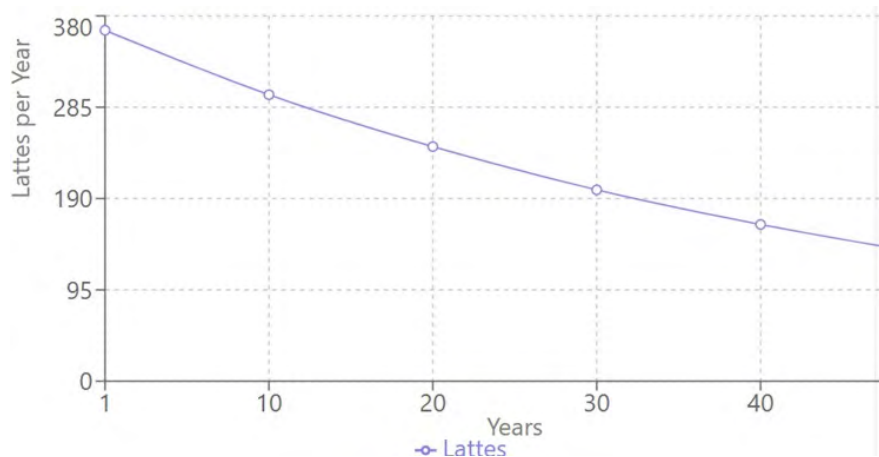
They can only buy 163 lattes, going without for 202 days, more than half the year.

6. Year 50

Their initial budget now only buys 133 lattes, so they will have their Starbucks fix for just over one-third of the year.

Number of Starbucks Lattes Purchasable per Year

Figure 2: Dunham, 2026. For illustrative purposes only



The Frog in the Pot

This illustrates two important concepts.

First, inflation steadily erodes your purchasing power. Even though their coffee budget had stayed the same, what started as a daily treat became an occasional luxury as the years passed.

To me, the second is more alarming.

There is an old metaphor about a frog placed in a pot of water. If the heat rises gradually enough, the frog is never aware of the danger. It is not a dramatic change at any given moment. It is the quiet, steady warmth of the water that becomes the problem.

Our Starbucks client may be that frog.

On the day they retire, their latte costs \$4.45. The following year, it cost \$4.54. That is nine cents. It is such a small increase that it barely registers, and our client simply pays it without a second thought. After all, they have earned their daily ritual. They are not going to give up their latte over nine cents.

And they should not have to.

But here is what that reasonable, perfectly human decision costs them over time. Because our client never notices the water getting warmer, they never adjust. They buy their latte every single day, year after year, the way they always have. The budget that was set does not grow. The price of the latte does.

By Year 10, our client is spending more than their budget allows each time they visit Starbucks, pulling the

difference from elsewhere in their finances. By Year 20, the cumulative overage has become a meaningful and ongoing drain on their retirement assets. By Year 30, what began as nine extra cents a day has compounded into a meaningful deficit funded by their depleting retirement assets. By Year 50, the steady, quiet warmth of 2% annual inflation has cost them tens of thousands of dollars they never saw coming.

This is the nature of inflation across an extended retirement. Year over year it does not feel like anything dramatic. It takes something small, repeatedly, for a very long time. The retiree who lives 40 to 50 years in retirement and never adjusts their spending will look back at their retirement with a thousand ordinary mornings when nothing seemed wrong.

The financial services industry must recognize that our clients are not equipped to feel this kind of danger. The increments are too small, but more importantly, the timeline could be too long. It is our responsibility to see what they cannot and to plan for what they will not notice until it is perhaps too late

Living Longer, Eating More

Modern retirement planning requires the industry to shift its thinking and challenge long-held assumptions to address evolving realities. As mentioned, the two powerful forces driving this transformation are increased human longevity and persistent inflation.

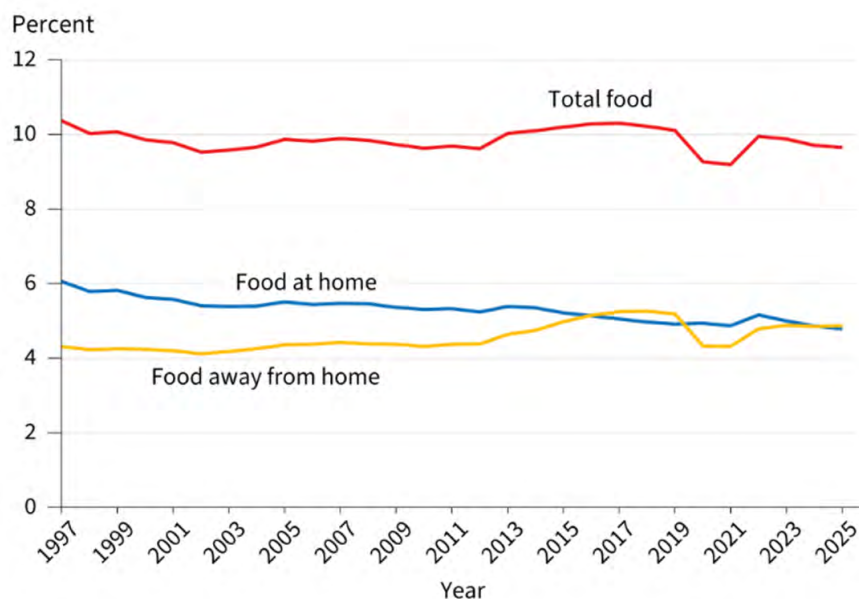
To illustrate the size of this change in thinking, our analysis now focuses on food costs, the single essential expense category without which we do not need to worry about longevity and, for that matter, inflation.

We examined this one basic living expense through the lens of extended lifespans and cumulative inflation. It is an example of why traditional retirement planning may no longer suffice for modern retirees facing decades of inflation across all expense categories while potentially living 40 to 50 years in retirement.

We started by understanding how much of our disposable income is spent on food. According to the USDA, in 2025, we spend, on average, 9.7% of our disposable income on food.⁽³⁾ In my case, I am sure it is significantly more!

Share of Disposable Personal Income Spent on Food in the United States, 1997-2025

Figure 3: USDA, Economic Research Service, Food Expenditure Series, June 2026. For illustrative purposes only



Note: Shares are calculated using nominal values, not adjusted for inflation. Data are as of June 2026 and subject to revision.

Based on USDA data, a retiree with \$100,000 in disposable income will spend \$9,700 a year on food ($\$100,000 \times 9.7\% = \$9,700$).

Next, we want to examine the impact of inflation on this food expense. According to the Bureau of Labor Statistics, food inflation has averaged 3.55% yearly over the last 50 years, from 1976 to 2026. (4)

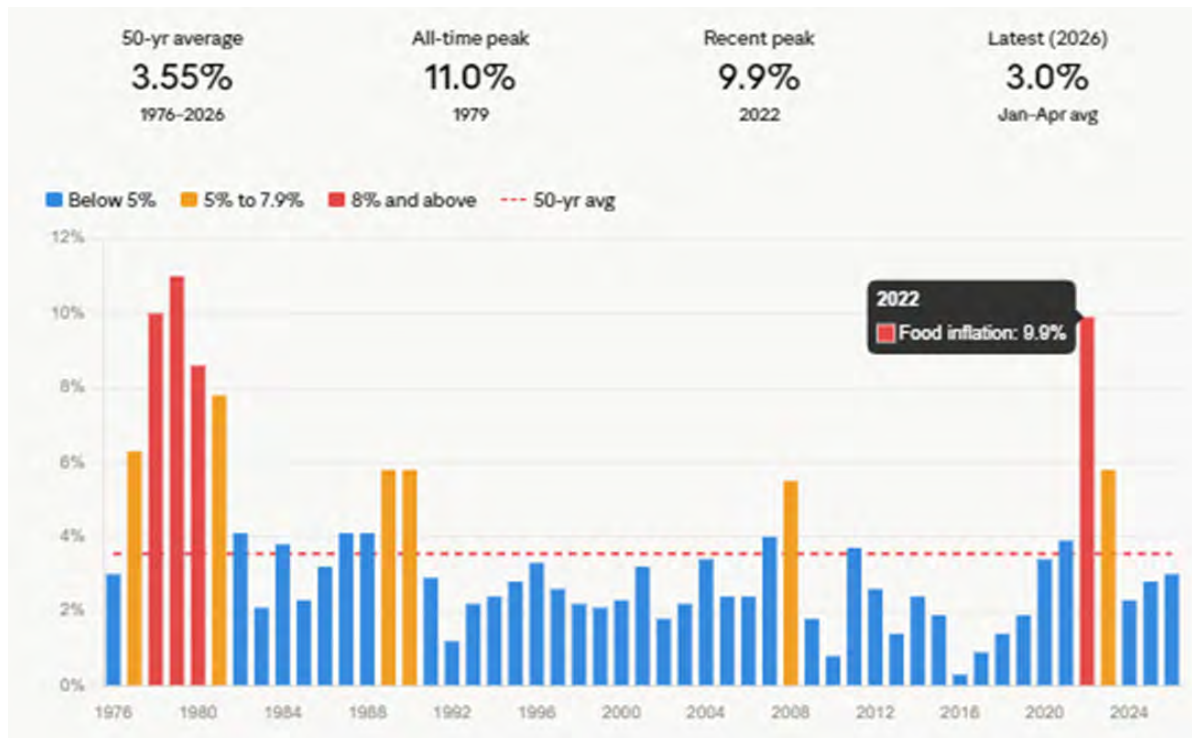
During the last 50 years, inflation varied widely. It included the high inflation of 1977 to 1981, which saw consistently high food inflation, often above 6%, a moderation period from 1982 to 2019, which saw generally lower and more stable inflation rates, and the recent volatility from COVID-19 from 2020 until the end of 2023, which saw a sharp increase in food inflation.

The red dashed line in the chart below shows the long-term average of 3.55% with large spikes in 1979, at 11.0%, and, more recently, in 2022, at 9.9%.

U.S Food Inflation (1976-2026)

Year-over-year % change in food CPI, annual average - 50-year window

Figure 4: Bureau of Labor Statistics, Dunham, 2026. For illustrative purposes only



Eating Your Assets

Using historical Food Consumer Price Index data from 1976 to April 2026 (3.55%), assuming a disposable income of \$100,000, and following the current U.S. consumer spending pattern for food, this retiree allocates \$9,700 of their income to food. This includes daily eating, such as breakfast, lunch, and dinner at home, occasional eating out, and maybe a relaxing glass of wine daily.

This initial allocation appears manageable, yet the compound effect of food inflation provides an interesting illustration of the potential problem posed by living longer.

Compound Effect of Food Inflation Over 50 Years

Figure 5: Dunham, 2026. For illustrative purposes only

Period	Number of People	Year 1	Period ending in Year 50
Annual	One Person	\$9,700	\$53,595
Annual	Two People	\$19,400	\$107,191
Cumulative	One Person	\$9,700	\$1,290,083
Cumulative	Two People	\$19,400	\$2,580,166
Year Range		1	50

Based on our assumptions, a person living for 50 years in retirement will spend almost \$1.3 million on food alone. And if they want to feed their spouse, they will need almost \$2.6 million.

It begs the question of whether \$1 million is enough to retire, given that we are only considering food.

Living Longer, Eating More

Food Costs Every 10 Years as Percentage of Initial Income

Figure 6: Dunham, 2026. For illustrative purposes only

Year	One Person % of Income	Two People % of Income	One Person Annual \$	Two People Annual \$
10	13.3%	26.6%	\$13,278	\$26,555
20	18.8%	37.6%	\$18,820	\$37,640
30	26.7%	53.4%	\$26,676	\$53,352
40	37.8%	75.6%	\$37,812	\$75,623
50	53.6%	107.2%	\$53,595	\$107,191

Within 20 years, annual food costs climbed to \$18,820, which is 18.8% of the initial \$100,000 income. It is \$37,640 or 37.6% for a couple.

However, the true impact of inflation becomes more apparent over time, which points to our concern about longevity in the face of inflation. After 30 years, annual food expenses reach \$26,676 for an individual and \$53,352 for a couple, requiring 26.7% and 53.4% of the initial \$100,000 income.

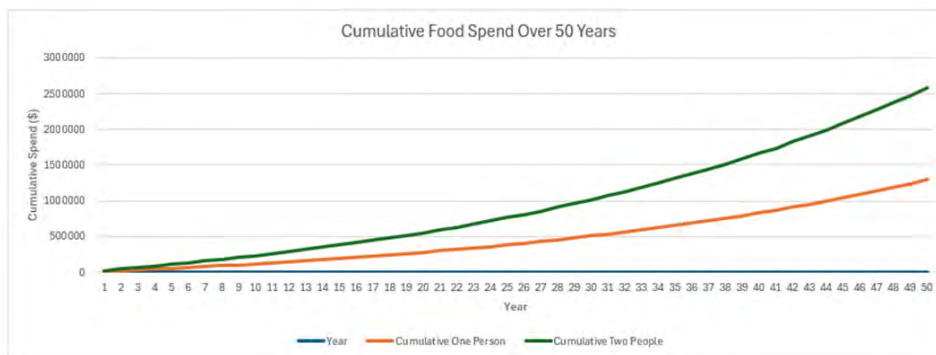
50 years into retirement, we are looking at \$107,191 in annual food costs for a couple, which is 107.2% of

the original \$100,000 income.

We view this as a potential blind spot in traditional retirement planning, where insufficient allocation to growth assets may leave retirees vulnerable to the long-term effects of inflation.

Cumulative Food Spend Over 50 Years

Figure 7: USDA, 2026. For illustrative purposes only



The Sequence of Risk Re-examined

The traditional understanding of the sequence of returns risk in retirement requires a fundamental re-examination. The financial services industry has historically focused on protecting retirees from negative returns in the early years of retirement. However, while extremely important, this presents an incomplete picture of modern retirees' challenges.

Extended longevity and persistent inflation have created a new paradigm that demands a broader risk assessment. Our analysis finds that even positive but overly conservative returns early in retirement can prove detrimental to long-term financial security, as negative returns.

This insight may challenge the typical approach to retirement planning. When accounting for extended retirement periods, the impact of modest early returns, though positive, may fall short of the need to generate more growth to sustain purchasing power over a lengthy retirement.

As an industry, we need to understand that sequence risk, coupled with a long retirement, changes the narrative. Financial professionals need to balance protection against market downturns with the critical need for portfolio growth that can support a retirement potentially spanning up to 4 decades or longer.

The Fable of the Tortoise and the Hare

As both the tortoise and the hare approached retirement, the tortoise was fuming.

For his entire life, the hare had beaten him in every competition they ever had, showcasing her superior speed. Now, in retirement, the tortoise was going to seek revenge.

Knowing the hare's propensity for quick starts, the tortoise knew a growth objective for the hare's

retirement assets could lead her to sequence risk and, as a result, decimate her retirement plan.

The tortoise decided to use his slowness to what he thought would be to his advantage. He was not going to take risks early in retirement.

Starting with \$1 million each, the hare and the tortoise would each have hypothetical 12-year returns of 8%, then 12-years at 6%, then 4%, and 2% for the final 12 years.

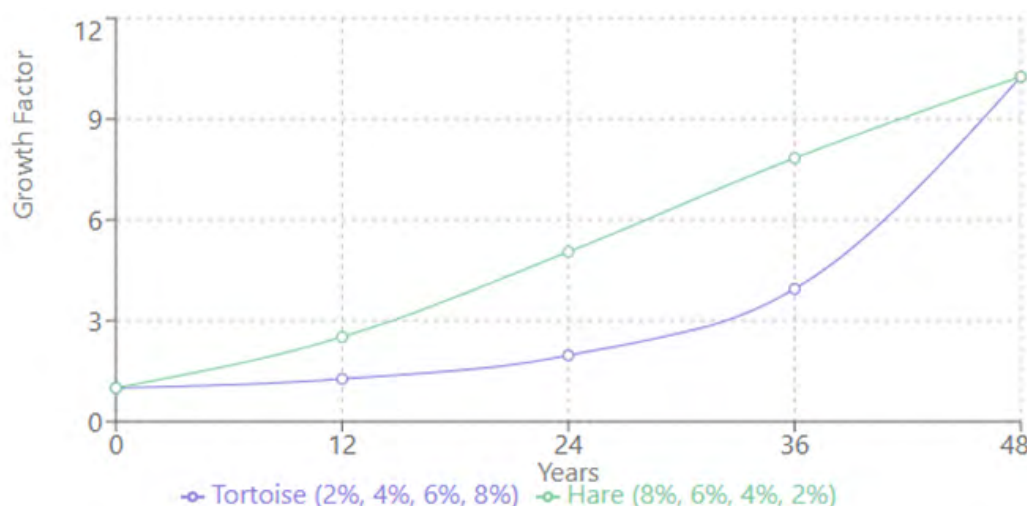
The tortoise, wanting to limit risk, received 2% for the first 12 years of his retirement, 4% for the next 12 years, 6% for 12 years, and 8% for the final 12 years.

The hare, always wanting to start fast, received 8% for the first 12 years of her retirement, 6% for the next 12 years, 4% for 12 years, and 2% for the final 12 years.

Both the tortoise and the hare would receive an identical annual hypothetical return of 5%.

Tortoise vs Hare Investment Growth

Figure 8: Dunham, 2026. For illustrative purposes only



In this example, let us examine the key characteristics of both the tortoise and hare investment strategies to understand the sequence of return risk when you have low returns to start retirement and live for a long time.

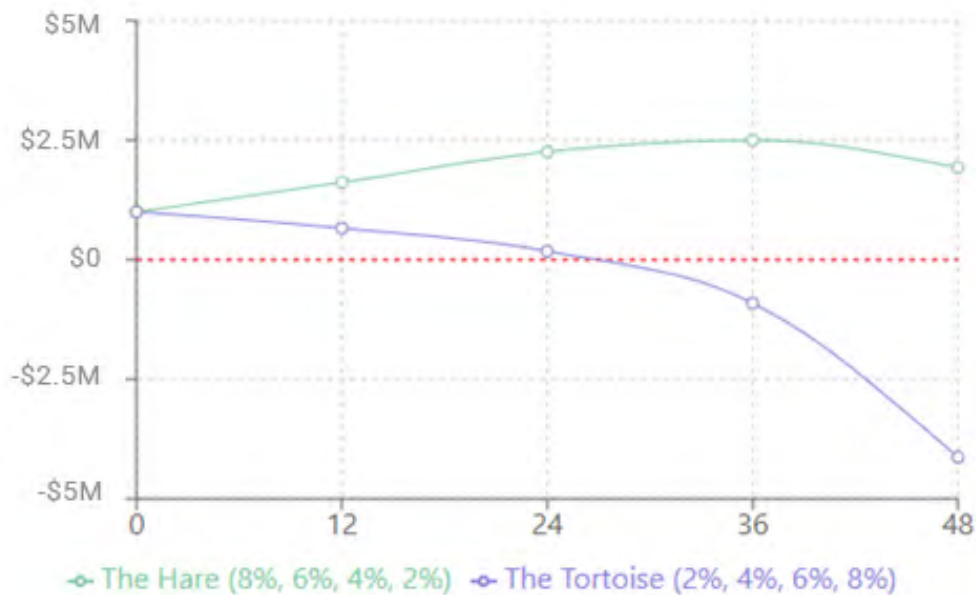
Throughout the entire 48-year period, both the tortoise and the hare strategies consistently yielded positive returns. Neither strategy experienced any years of negative growth in this hypothetical example.

The tortoise strategy saw steadily increasing positive returns, from 2% up to 8%, while the hare strategy had decreasing but always positive returns, from 8% down to 2%. This consistent positive performance, though varying in magnitude, means that both strategies provided continuous growth without any years of loss during this hypothetical retirement period.

This underscores a crucial point of our new understanding of the sequence of risk.

Investment Growth: The Tortoise and the Hare

Figure 8: Dunham, 2026. For illustrative purposes only



Both the tortoise and the hare started with the same \$1 million retirement account and withdrew \$40,000 annually, adjusted for 2% inflation.

With lower initial returns, the tortoise strategy depletes its funds by the 27th year of retirement despite increasing returns in later years.

The hare strategy, helped by higher early returns, had over \$1.9 million in its retirement account after 48 years, even with the same returns, just a different sequence of returns.

The concept of sequence risk in retirement planning is evolving due to increasing lifespans. Traditionally, the focus was on mitigating the impact of negative returns early in retirement. However, being too conservative may also become a sequence risk as retirements stretch longer.

The industry must balance protecting against early market downturns and positioning portfolios for sufficient long-term growth. Overly conservative strategies, while hedging against short-term volatility, may not generate the returns needed to sustain an extended retirement.

The Retirement Investment Paradox™

As a financial advisor, preparing for a client's longer potential lifespan, can make retirement planning challenging.

We give this challenge a name: The Retirement Investment Paradox™.

This challenge is the conflicting choice between growth and safety in retirement asset allocation planning.

The three main risks that define the Retirement Investment Paradox™ include:

- Inflation
- Increased longevity (40 years or longer)
- Sequence risk.

A Trip To Hawaii

Think of retirement planning as sailing a ship from San Diego to Hawaii.

The goal is to reach Hawaii (a comfortable retirement) with enough supplies (money) to last the journey.

1. Inflation:

Think of inflation as a constant headwind. It steadily pushes against the ship, making progress harder and requiring more supplies (money) than initially expected.

2. Increased Longevity:

What if, mid-voyage, you discovered that Hawaii is farther away than you initially calculated? This means you will now be on the boat longer, and your supplies may not last for a longer journey.

3. Sequence Risk:

Picture unpredictable storms during your voyage. If a major storm hits (poor sequence of returns, especially in the first few years of retirement), it can damage the ship and deplete supplies, making the rest of the journey precarious. Or if you went too slow early in the trip, basking in the Pacific Ocean sun, only to find that you will not have enough supplies to last the entire journey.

And there lies the paradox.

Sailing at full speed with unfurled sails is analogous to a growth investment strategy. It exposes the sail-boat to devastating storms, as sequence risk can devastate a retirement portfolio in turbulent markets.

Sailing too cautiously with reduced canvas is like a conservative investment strategy. While this approach offers protection from storms, it risks depleting supplies before reaching Hawaii, just as conservative investments may not overcome inflation or fund an extended retirement.

Like a financial advisor, the captain must balance these competing paradoxical challenges, keeping sufficient speed for an increasingly long journey while protecting the boat from catastrophic damage. Neither maximum speed nor maximum safety alone can ensure success.

Solve For Inflation and Living Longer

As we all live longer, today's retirees require their investments to grow to combat inflation and fund potentially longer retirements. Historically, equities have been an asset class that has provided growth for living longer and generally outpaced inflation over the long term.

Assuming the current 65-year-old lives another 40 years, over the period from December 1985 to the end of December 2025, the S&P 500 delivered an annualized return of 11.45%, including reinvested dividends.⁽⁵⁾

This performance exceeded the average annual inflation rate of 2.75%, resulting in a real inflation-adjusted return of 8.7%.⁽⁵⁾

For perspective, a \$100,000 investment in December 1985 would have grown to approximately \$7,665,839 by December 2025. In contrast, simply keeping up with inflation would have required only \$295,987 to maintain the same purchasing power.⁽⁵⁾

It is important to note that this period included several major market downturns, including five bear markets, the second-worst market decline in the S&P 500's history, and the "lost decade" for stocks.

Paradox

While equities are an asset class that may effectively combat inflation and provide growth for living longer, they can also cause sequence risk, devastating even the best-planned retirement.

Solve for Sequence Risk

However, a financial advisor can plan a retiree's portfolio with less volatile assets like annuities, bonds, and bucket strategies to defend against sequence risk.

Paradox

While they may do a great job on sequence risk, they may not provide the growth needed for long-term inflation and longer life expectancy.

The paradoxical tension between the need for growth and safety creates **The Retirement Investment Paradox™**, where the assets that best provide long-term growth also pose the most significant short-term risks.

The strategies that can mitigate these short-term risks may not provide the growth to overcome inflation and thoughtfully plan for the 65-year-old who may live another 40 years or more in retirement.

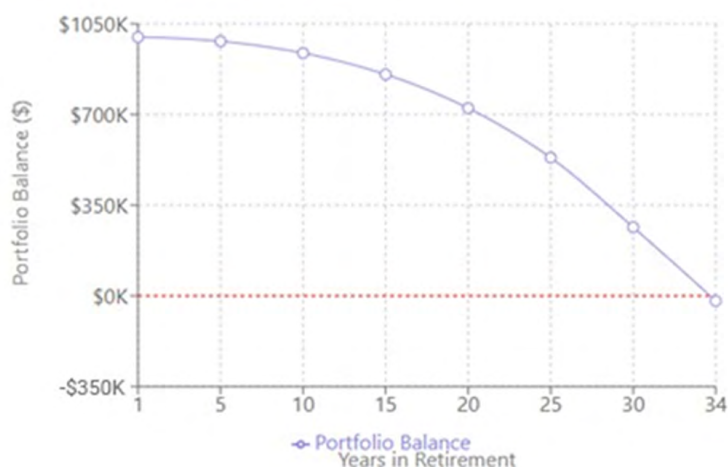
For example, a retiree begins with \$1 million and earns a conservative 4% annual return after all fees and expenses. The retiree withdraws \$40,000 annually, increasing by 2% annually to account for inflation.

Despite the steady positive returns, their account will be depleted by year 34 of retirement.

\$1 Million Portfolio: 4% Annual Return with Inflation-Adjusted Withdrawals

Source: Dunham, 2025. For illustrative purposes only.

Initial annual withdrawal: \$40,000, increasing 2% yearly for inflation



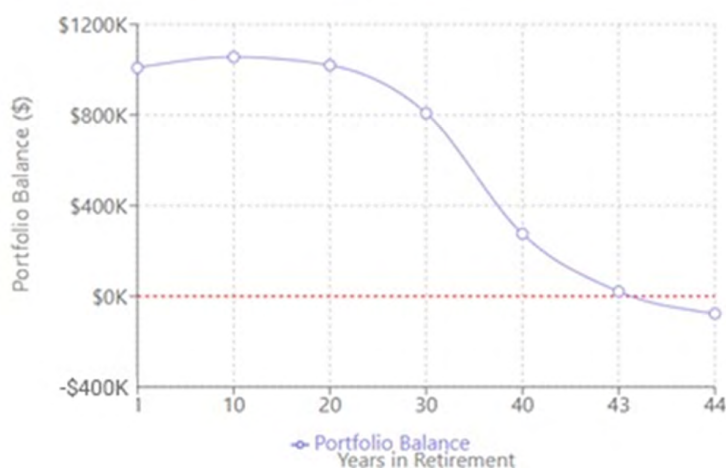
This shows the potential flaw in too-conservative planning. While a 4% net return after fees and expenses helps protect against sequence risk, the combined effects of inflation and extended longevity ultimately exhaust the portfolio. The modest return proves insufficient to sustain a retirement that could last four decades or longer.

Interestingly, the dual impacts of living longer and 2% inflation also have a devastating effect on a 5% net return after fees and expenses. The chart below shows that even a moderately conservative return of 5% net exhausts the portfolio after 43 years.

\$1 Million Portfolio: 5% Annual Return with Inflation-Adjusted Withdrawals

Source: Dunham, 2025. For illustrative purposes only.

Initial annual withdrawal: \$40,000, increasing 2% yearly for inflation



A 5% net annual return after fees and expenses offers significantly better portfolio longevity and extends retirement funding deeper into the later years. However, this return rate may still not be enough for retirees who experience exceptional longevity. The reality of increased life expectancy requires a fundamental reconsideration of what constitutes adequate investment returns for retirement portfolios.

This evolving longevity challenge compels the financial industry to undertake a thorough reassessment. Traditional portfolio theory, conventional investment offerings, and established compliance frameworks may all require substantial revision to address the demands of funding retirements that could span four decades or longer. The financial services industry must adapt its practices and assumptions to better serve clients who may live well beyond current historical life expectancy patterns.

The Sequence of Inflation Risk

While financial advisors often focus on the Sequence of Investment Risk, another critical threat to retirement savings exists, which is the Sequence of Inflation Risk.

This risk can be equally devastating to retirement portfolios, particularly when inflation rates exceed expected levels and erode purchasing power systematically over time. It is particularly important today, as we are seeing inflation exceeds the Federal Reserve's 2% target. The non-transitory nature of inflation after COVID, followed by a war with Iran, has kept inflationary pressures on portfolios, making this topic an extremely important planning consideration, especially if our clients are going to be in retirement for 40 to 50 years.

To understand the impact of varying inflation rates on retirement savings, consider this scenario comparing two clients over 40 years. Both clients achieve a hypothetical 6% average annual return after fees and expenses throughout their retirement years. These returns suggest that the Sequence of Returns Risk does not affect either portfolio.

The inflation experience over these 40 years averages 2.5% but is distributed in different phases. During the first decade, inflation runs at 4%. In the second decade, it decreases to 3%. The third decade sees inflation at 2%; in the final decade, it drops to 1%. This structured distribution of inflation rates allows us to analyze how varying inflation levels affect retirement savings over an extended period, even when investment returns stay consistently favorable.

Consider two different sequences of these inflation rates:

Scenario 1

Client A experienced inflation in ascending order, meaning 1% for the first ten years, 2%, 3%, and 4% for the last decade. In this hypothetical case, your client is still solvent, and their assets have nearly doubled over the 40 years.

Scenario 2

On the other hand, **Client B** experienced inflation in descending order, starting at 4% for the first ten years, then 3% for the next ten, followed by 2%, and finally dropping to 1% in the last decade. Despite the same average inflation rate, Client B depleted their assets by the 37th year.

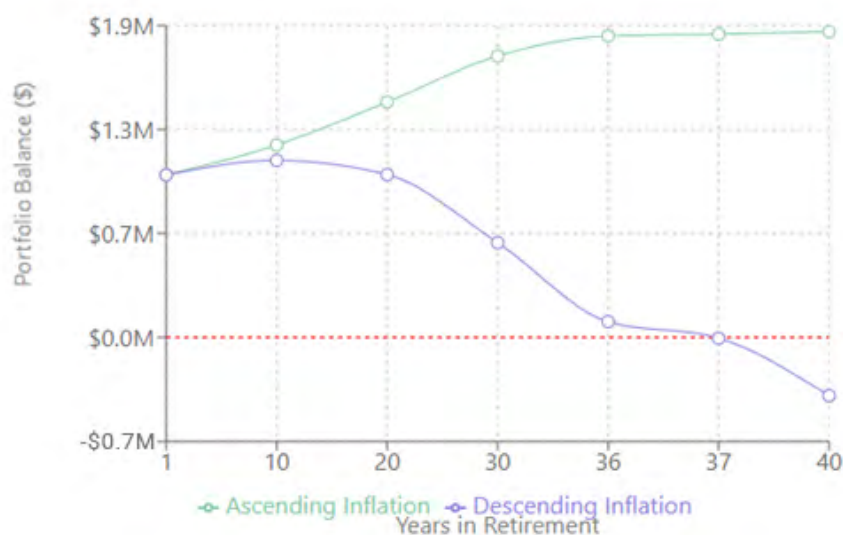
Impact of Sequence of Inflation Risk on \$1 Million Portfolio

Source: Dunham, 2025. For illustrative purposes only.

6% Annual Return, \$40,000 Initial Withdrawal

Client A: Ascending Inflation (1% → 4%)

Client B: Descending Inflation (4% → 1%)



This comparison illustrates the significant impact of the sequence of inflation rates on long-term financial outcomes, even when the two scenario average return rates stay constant.

The importance of growth, as explored in the Retirement Investment Paradox™, becomes clear when we examine scenarios with lower returns and how the Sequence of Inflation Risk™ becomes more pronounced as average portfolio returns decline.

Consider a situation where both clients achieved only a hypothetical 4% net rate of return after fees and expenses. Under these circumstances, the impact of the inflation sequence becomes magnified.

With an average net 4% rate of return, Client A would exhaust their retirement savings in the 36th year, while Client B would deplete their funds by the 26th year. This highlights how the sequence of inflation rates can significantly accelerate the depletion of retirement assets when combined with lower, more conservative investment returns.

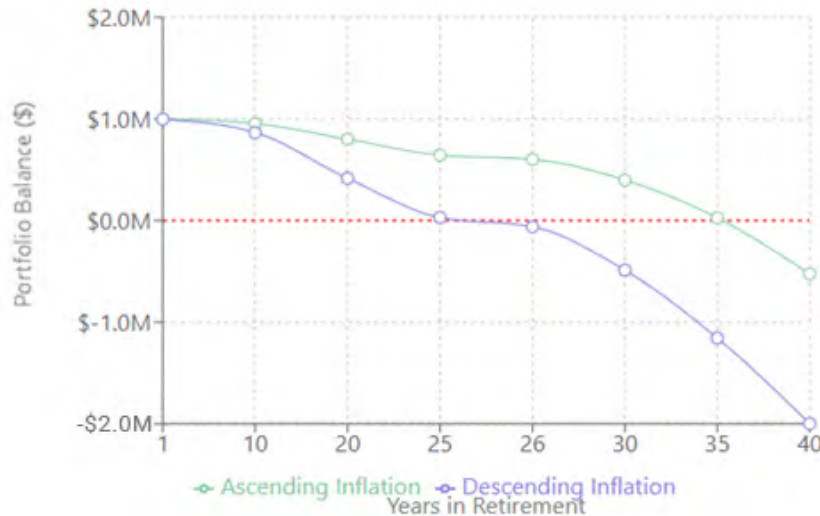
Impact of Sequence of Inflation Risk on \$1 Million Portfolio

Source: Dunham, 2025. For illustrative purposes only.

4% Annual Return, \$40,000 Initial Withdrawal

Client A: Ascending Inflation (1% → 4%)

Client B: Descending Inflation (4% → 1%)



Early Higher Inflation Followed By The Fed's 2% Inflation

The Sequence of Inflation Risk shows us an important aspect of retirement planning that demands our attention. This concept demonstrates how the timing and magnitude of inflation can dramatically affect the longevity of retirement savings. Let us explore this phenomenon through a diverse set of scenarios.

Let us look at a retiree with a net 6% average rate of return on their portfolio, taking \$40,000 income increasing at varying high inflation levels early in retirement, followed by a more moderate 2% inflation rate.

Our analysis examines various inflation and duration scenarios to understand their impact on retirement assets. By testing different combinations of inflation rates and periods, we show how even shorter periods of elevated inflation can significantly affect retirement savings over extended lifespans. This allows us

to assess the vulnerability of retirement assets to inflationary pressures, particularly as retirees face the prospect of funding retirements that could span multiple decades.

We show that brief periods of higher inflation and increased longevity may create substantial challenges for maintaining retirement assets for the long term. This relationship between inflation, time, and asset preservation is critical in modern retirement planning.

Inflation Rate	First Number of Years in Retirement	Inflation Rate After Initial Higher Inflation	You May Run Out of Funds After This Many Years of Retirement
4%	11 years	2%	In year 40
5%	7 years	2%	In year 39
6%	5 years	2%	In year 39

Source: Dunham, 2025. For illustrative purposes only.

In the first scenario, a retiree experiences 4% inflation for the first 11 years of retirement, followed by 2% inflation thereafter. This individual's retirement savings last for 40 years before depletion.

In the second scenario, the retiree starts with a 5% inflation rate for the first 7 years of retirement, again followed by 2% inflation. Despite the shorter duration of high inflation, this retiree's funds are exhausted in year 39.

The third scenario shows that with 6% inflation for just the first 5 years of retirement, followed by 2% inflation, the retiree still faces fund depletion in year 39.

These scenarios underscore two crucial insights. Even relatively brief periods of high inflation early in retirement can have long-lasting and detrimental effects on financial stability.

Second, growth in a retiree's portfolio is needed as this assumes a hypothetical 6% net rate of return. Less return accelerates the depletion of assets in these examples.

This occurs because high inflation in the early retirement years erodes purchasing power more rapidly, forcing larger withdrawals from the retirement portfolio. These increased withdrawals, in turn, leave less capital to grow and compound over the remaining retirement years, even when inflation moderates later.

Multi-Generation Retirement™

In our discussion of the Retirement Investment Paradox™, we used the analogy of a boat sailing from San Diego to Hawaii. What if, as you were sailing, you discovered your parents' ship, which had embarked

for Hawaii before you, and they had exhausted their supplies? They planned for a shorter voyage, never expecting to sail this far. Now, you must share your supplies between the two ships. Your carefully planned resources must stretch to sustain both boats.

Then, as you navigate this new challenge, you spot your grandparents' boat, also depleted of provisions. They, too, had planned for a shorter journey, but favorable winds kept them sailing far longer than anyone expected. Now, your original supplies must support three ships through their extended voyages.

This is the essence of **Multi-Generation Retirement™**. One generation's retirement resource potentially supports multiple generations simultaneously. Just as our sailor never planned to provision multiple ships, today's retirees may find themselves supporting their own retirement, their longer-living parents, and perhaps even grandparents.

Each additional generation creates exponential strain on the original retirement resources, much like each additional ship depleting the carefully planned supplies more rapidly.

Here is a personal example to illustrate this challenge. I have a friend who is 68 years old and seriously considering retirement. He cares for his 103-year-old mother. His situation points to a shift in retirement planning. As he plans his and his wife's retirement, he must also prepare for his mother's ongoing care and support.

One generation supports two generations of retirees.

This scenario differs from the traditional "sandwich generation" concept, where working adults simultaneously support aging parents and growing children. In the sandwich generation, individuals maintain active employment, allowing them to adapt their income to meet multi-generational responsibilities.

This reality changes our understanding of retirement planning. The need for substantial portfolio growth becomes more important than ever as retirees must address persistent inflation and increased longevity across multiple generations.

The combination of extended longevity, inflation, and multi-generational support obligations creates unprecedented planning challenges.

A Three-Generation Example

Consider this.

A couple has a child at age 30. When that child turns 70, he wants to retire, but because his parents did not plan to live as long as they did, they are now 100 and broke. He now has two generations to support in retirement.

That child, when he was 30 years old, had a child - a daughter. When she turns 70, she decides to retire. With poor planning, her parents are 100 and broke, and her grandparents are 130 and broke. She now must support three generations of retirees.

And do you know what none of those mentioned above children have that previous generations had?

An inheritance.

This is the concept behind Multi-Generation Retirement™.

This may be why the Great Wealth Transfer may not take place or the magnitude of the anticipated Great Wealth Transfer could be much smaller than commonly anticipated unless we begin planning for growth early in clients' portfolios.

This is not science fiction. This is why we must change our thinking about retirement, account for much longer lifespans, and position portfolios to provide for opportunities to increase growth in our retiree portfolios in calculated ways.

The Longevity-Inflation Impact

Why is this new paradigm of longevity coupled with inflation important?

This is because we find a fundamental misunderstanding of modern retirement mathematics. While the industry has long recognized increased longevity and persistent inflation as challenges, these two forces create a more complex relationship than traditionally understood. They interact in ways that fundamentally challenge traditional retirement planning assumptions.

We identified what we call the **Longevity-Inflation Impact**. This mathematical relationship exposes a blind spot in current retirement planning. It is what we call the **Arithmetic of Failure**. Our research shows that while the required returns to combat longevity and inflation show a linear progression, the consequences

of inadequate returns create an exponential deterioration of retirement resources.

The implications of this explain some of our earlier discussion points:

- The Retirement Investment Paradox™ showed us that conservative portfolios, traditionally considered “safe,” may actually increase the risk of failure over extended retirements.
- The Sequence of Inflation Risk showed us how the timing of inflation can accelerate portfolio depletion.

However, the mathematical relationship between these two factors, longevity and inflation, presents the most important concept. When portfolios fail to maintain adequate returns above inflation over extended periods, the impact on portfolio depletion becomes exponential. Our research demonstrates why:

- Portfolios that appear adequately funded under traditional metrics fail decades earlier than expected.
- Each percentage point shortfall below required returns creates accelerating portfolio depletion.
- Conservative investment approaches, while appearing prudent, may actually hasten portfolio failure.

The Longevity-Inflation Impact leads us to question whether the industry’s current approach to “conservative” retirement planning might systematically undermine retirees’ long-term financial security.

It requires us to reconsider what constitutes appropriate returns for retirements that may span four or five decades.

Target Sustainability Rate

Much like the mythical fountain of youth, the Target Sustainability Rate represents our search for portfolio sustainability in an era of extended retirements and inflation.

And as much as the fountain of youth was not found hundreds of years ago, modern science may be on the verge of discovering it now. So too, are we looking to find the proverbial fountain of youth in the form of a model for returns that could help a portfolio in the times we believe we have ahead of us?

To understand this relationship, we tested multiple scenarios over 50 years. We examined hypothetical, net returns after fees and expenses of 6%, 5%, 4%, and 3%, against four inflation scenarios of 1%, 2%, 3%, and 4%. Each scenario assumed a \$1 million portfolio with initial withdrawals of \$40,000, increasing at the respective inflation rate.

We wanted to see if there was a relationship between longevity, inflation, and portfolio sustainability. We identified what we call the Target Sustainability Rate, which is the minimum return rate that we believe would be required to sustain portfolios through extended retirements in varying inflationary environments.

The hypothetical examples shown below assume a 4% annual withdrawal rate, and reinvestment of all dividends. The hypothetical, annual rates of return are not guaranteed and do not reflect the performance of any specific investment. Actual returns will fluctuate and may be higher or lower than the assumed rate.

1% Inflation

What we found at only a 1% average inflation rate for 50 years:

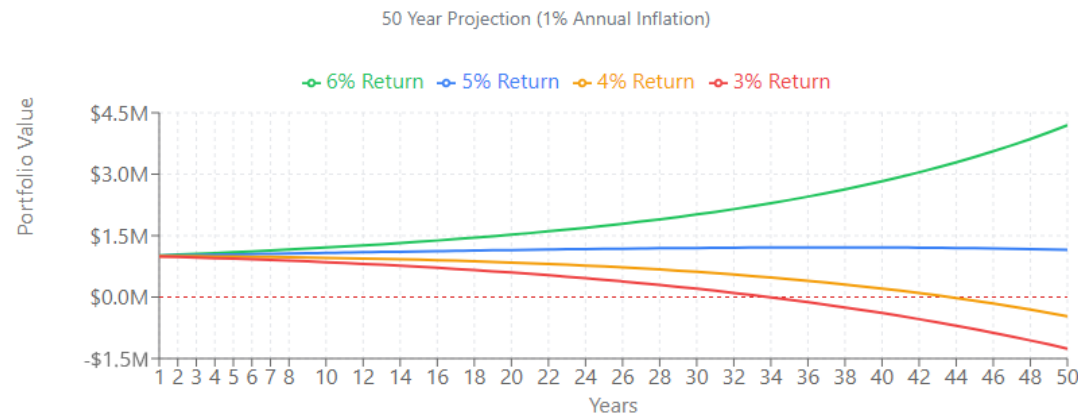
- 6% net return portfolio would quadruple to over \$4 million.
- 5% net return portfolio would maintain value but barely keep pace.
- 4% net return would deplete by year 44.
- 3% net return would deplete by year 34.

At 1% inflation, we found that a 6% net after-fee return appears to hit our Target Sustainability Rate, meaning it gave us the return needed to maintain purchasing power while supporting withdrawals over extended periods and providing growth. This rate could provide a buffer against both inflation and longevity risk.

The 5% net return did not deplete the account but did not grow the account either at 1% inflation. The lower returns create a slow but inevitable depletion of assets.

Target Sustainability Rate

Source: Dunham, 2025. For illustrative purposes only.



2% Inflation

We believe that 2% inflation represents a more likely scenario, yet the results are eye-opening in this hypothetical scenario.

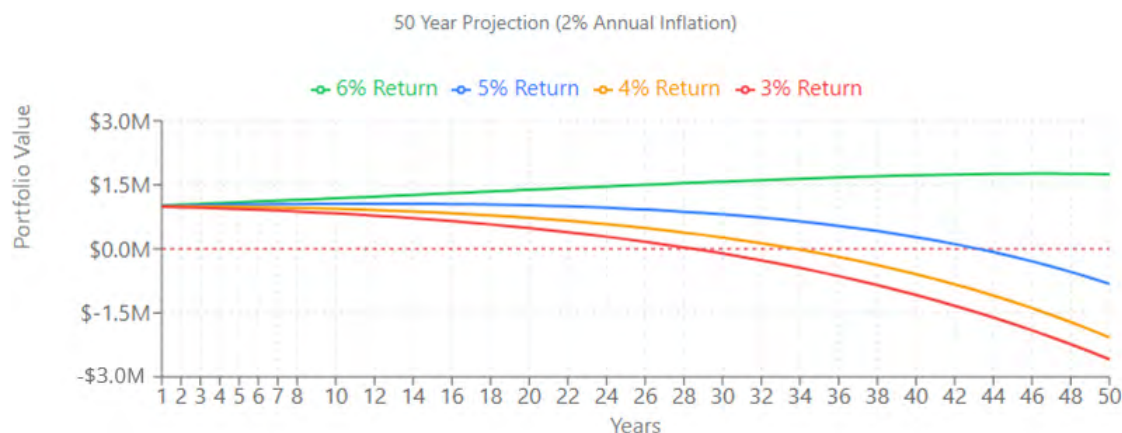
- 6% net return would maintain growth, ending at \$1.75M.
- Surprisingly, a 5% net return would deplete the portfolio by year 43.
- 4% net return would deplete by year 34.
- 3% return would deplete by year 28.

At 2% inflation, annual withdrawals increase from \$40,000 to \$105,552, and a net 6% return is the minimum required to maintain purchasing power and avoid depleting the portfolio over 50 years. Returns below a net 6% result in significantly earlier portfolio depletion than with 1% inflation, which is not

surprising in itself but points to the possible harm overly conservative portfolios may bring to the retiree living longer and living with inflation.

Target Sustainability Rate

Source: Dunham, 2025. For illustrative purposes only.



3% Inflation

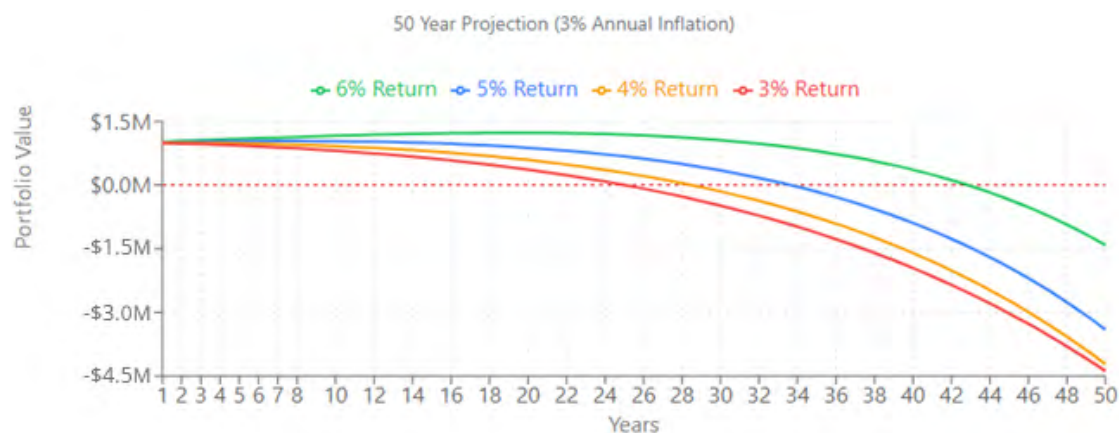
At a slightly higher inflation rate of 3%, none of the portfolios could withstand the Longevity-Inflation Multiplier. The depletion timeline of this hypothetical portfolio is as follows:

- 6% return: would deplete by year 43.
- 5% return: would deplete by year 33.
- 4% return: would deplete by year 28.
- 3% return: would deplete by year 25.

Even a 6% net return could not sustain the portfolio for 50 years as annual withdrawals more than quadruple, increasing from \$40,000 to \$170,249. For the other tested returns, depletion would occur much earlier than with 1% or 2% inflation, suggesting that higher returns may be needed for sustained retirement income in higher-inflation environments.

Target Sustainability Rate

Source: Dunham, 2025. For illustrative purposes only.

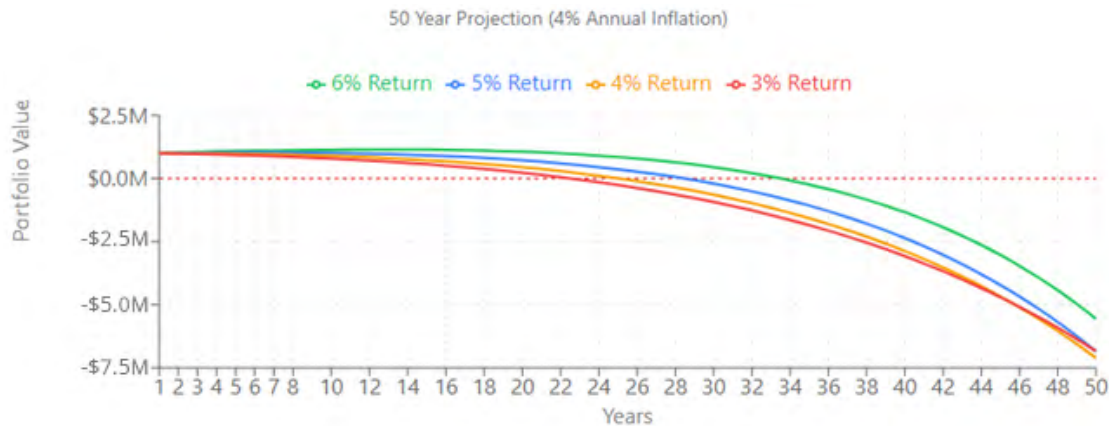


4% Inflation

All portfolios were depleted by the 34th year, with the 3%, 4%, and 5% net return portfolios failing to make it to the 30th year.

Target Sustainability Rate

Source: Dunham, 2025. For illustrative purposes only.



Why Is This Important?

Required returns progress linearly. Under the assumptions used in this hypothetical example to maintain sustainability, our research suggests that each 1% increase in inflation would require approximately a 1-2% increase in portfolio returns.

However, portfolio depletion accelerates exponentially. When returns fall short of required levels, the pace of portfolio depletion accelerates dramatically. Small shortfalls in returns lead to disproportionately faster portfolio depletion. This acceleration effect becomes more pronounced as inflation increases.

The returns required for portfolio sustainability may be significantly higher than commonly assumed. Even at the Federal Reserve's 2% inflation target, portfolios may require net returns of 6% to be sustainable over extended retirements.

Second, the consequences of falling short of these required returns are severe. The accelerating nature of portfolio depletion means that what appears to be a slight shortfall in returns can lead to dramatically earlier portfolio failure.

The implications are profound. What the industry has labeled "prudent" retirement planning might systematically undermine retirees' financial security in the new world of living longer and with inflation. It is the exact opposite of its intended effect. This requires fundamentally reimagining retirement planning methodology and portfolio construction, challenging core assumptions that have guided the industry for three-quarters of a century.

The Right Foundation

The scenarios presented here are deliberately constructed to illustrate a point, not predict a life. Real retirees are not passive actors. They adjust, adapt, and make dozens of small decisions each year that a model cannot anticipate. A retiree who spends less in a difficult market, delays a vacation, or modifies a withdrawal by even a modest amount introduces flexibility that no static projection can capture.

We acknowledge that. We built the model this way on purpose.

Because the danger is not the sophisticated retiree with a talented advisor who adjusts in real time. The danger is the industry default. The standard plan. The portfolio was constructed around assumptions that may have been reasonable for a twenty-year retirement and can be quietly catastrophic for a fifty-year one. When the baseline assumption is wrong, every adjustment made against it is also slightly wrong, compounding silently over decades the same way inflation does.

The solution is not a more flexible model. The solution is a better starting point.

A portfolio constructed with a genuine understanding of the Target Sustainability Rate, the Sequence of Inflation Risk, and the Longevity Inflation Impact does not need as much behavioral rescue along the way. It is built for the retirement people that are actually living, not the one the industry planned for a generation ago. The retiree who begins with the right foundation still has flexibility available. The retiree who begins with the wrong one spends that flexibility simply trying to survive.

That is the difference between a plan and a prayer.

The Retirement Real Return Rule

As we tinkered with the Target Sustainability Rate, we discovered what we call the Retirement Real Return Rule. This rule suggests the minimum returns above inflation needed to sustain the modern retiree.

Our analysis, as shown in the hypothetical scenario below, shows us a fundamental truth that challenges the core assumptions of retirement planning. The critical component in retirement sustainability is not achieving a specific nominal return but rather maintaining a mathematical spread above inflation. This changes how we approach retirement planning in an era of increased longevity coupled with inflation.

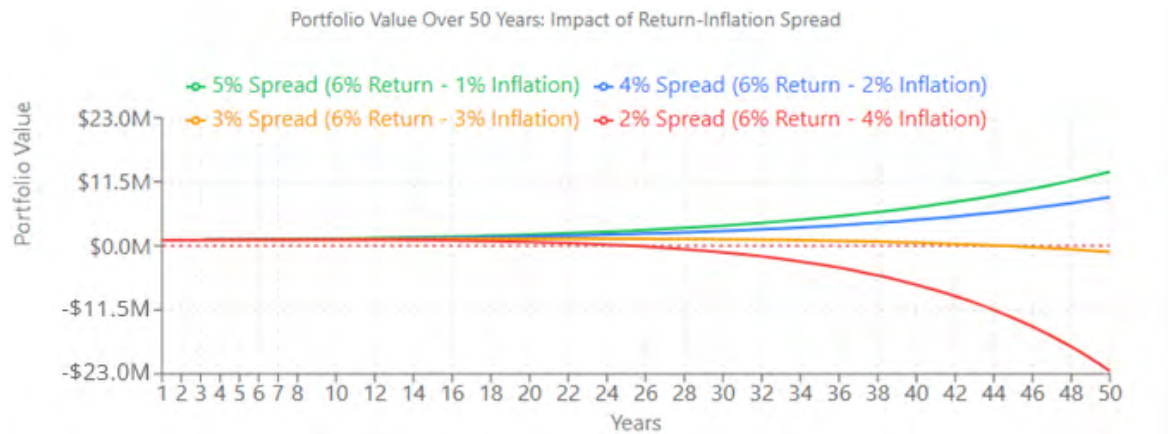
If you examine our search for the Target Sustainability Rate, we have identified that maintaining a 4%-5% spread above inflation represents the minimum threshold for long-term portfolio sustainability.

This mathematical relationship explains why portfolios that appear adequately conservative by traditional standards may systematically fail over extended time horizons.

- At 1% inflation, a 6% net return would thrive (5% spread)
- At 2% inflation, a 6% net return would barely sustain (4% spread)
- At 3% inflation, a 6% net return would fail (3% spread)
- At 4% inflation, a 6% net return would collapse (2% spread)

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.



This leads us to propose the Retirement Real Return Rule. For sustainable 40+ year retirements, we believe that portfolio returns must exceed inflation by approximately 4-5%. This rule provides a dynamic framework that adapts to varying economic environments.

- 1% inflation environment requires ~5-6% returns.
- 2% inflation environment requires ~6-7% returns.
- 3% inflation environment requires ~7-8% returns.
- 4% inflation environment requires ~8-9% returns.

The implications are interesting.

At the Federal Reserve's 2% inflation target, retirees would require minimum net returns of 6-7%, which is significantly higher than traditional conservative allocations typically provide. This suggests that conventional "conservative" retirement strategies may be systematically undermining retirees' long-term financial security.

The Retirement Real Return Rule represents more than an incremental advancement in retirement planning theory. We believe it requires a fundamental reimagining of what we have been taught constitutes prudent retirement planning. In an era where retirements may span up to four or five decades, the industry must shift from focusing on nominal returns to maintaining critical spreads above inflation. The mathematics of long-term portfolio sustainability demands this.

This paradigm shift challenges financial advisors to reconsider their basic risk, return, and portfolio construction assumptions. Being too conservative in retirement could potentially represent the greatest threat to long-term financial security. When you first hear this, it is an uncomfortable insight, but one that the financial community needs to examine.

Interestingly, each extra 1% of withdrawals from a retirement account adds an additional 1% to the spread over inflation.

The future of retirement planning does not lie in achieving arbitrary return targets but in maintaining the

mathematical relationships that drive long-term sustainability. The Retirement Real Return Rule provides the framework for this essential change in modern retirement planning.

The Retirement Real Return Rule in Various Scenarios

Our prior discussion established the Retirement Real Return Rule, which suggests that for retirement sustainability, one must maintain a 4-5% return spread above inflation. However, this assumes a 4% annual withdrawal rate, and our curiosity led us to see if this held in different withdrawal percentages. We examined 3%, 4%, and 5%, creating what we call the Retirement Real Return Rule.

A 3% Withdrawal Rate

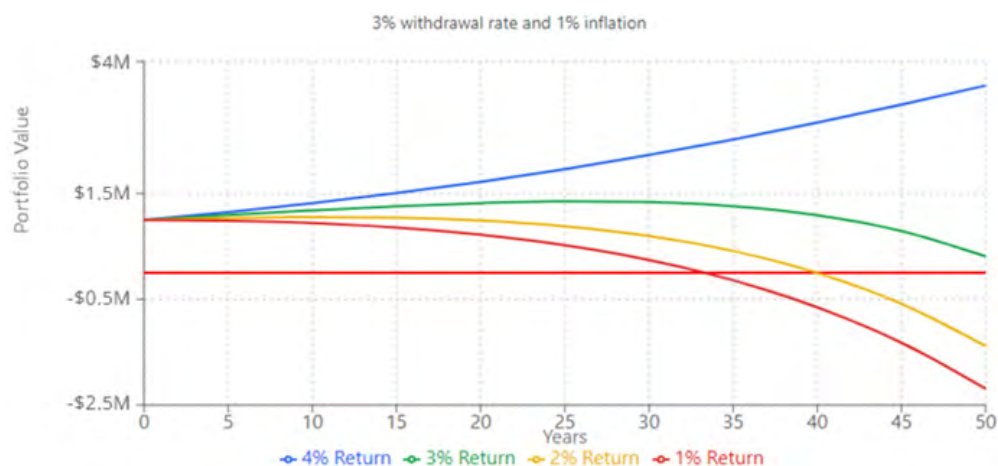
3% Withdrawal Rate and 1% Inflation

This is likely the most favorable scenario with low long-term inflation and a low withdrawal rate.

Under these conditions, achieving a net 4% return (3% spread above inflation) may be sufficient for portfolio sustainability, whereas a net 3% return (2% spread above inflation) narrowly avoids complete depletion of assets. However, if returns drop to a net 2% (1% spread above inflation), the portfolio becomes exhausted in year 41.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.

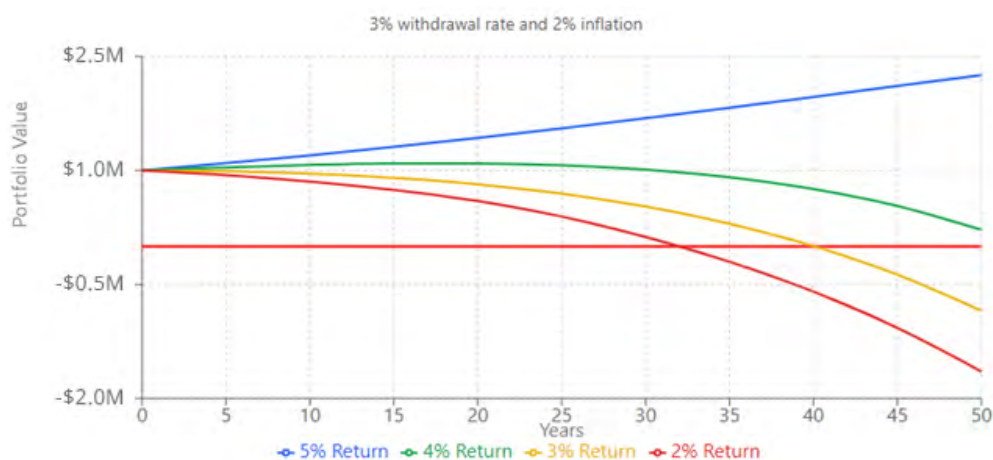


3% Withdrawal Rate and 2% Inflation

One percentage point more in inflation forces a net 5% return to stay comfortably in retirement. A net 4% return would barely make it through the longevity period, and we would deplete the account in the 41st year with a net 3% return.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.

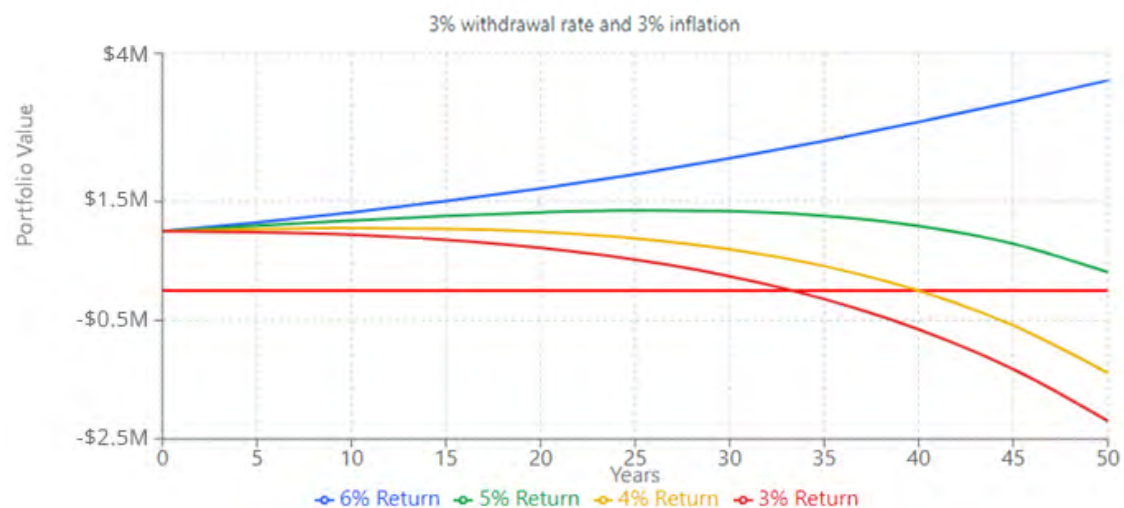


3% Withdrawal Rate and 3% Inflation

Now, we are seeking a 6% net return at 3% inflation with a 5% net return barely making it and the portfolio would deplete in the 40th year of the 4% net rate of return.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.



This data implies that the traditional view of what constitutes a “conservative” portfolio may need to be reconsidered. Even with a modest 3% withdrawal rate, maintaining a spread of at least 3% above inflation may be necessary for long-term sustainability.

3% Withdrawal Rate Analysis

Source: Dunham, 2025. For illustrative purposes only.

Inflation Rate	Great Returns	Good Returns	Depletes
1% Inflation	5% net (4% spread)	4% net (3% spread)	3% net (2% spread)
2% Inflation	6% net (4% spread)	5% net (3% spread)	4% net (2% spread)
3% Inflation	7% net (4% spread)	6% net (3% spread)	5% net (2% spread)



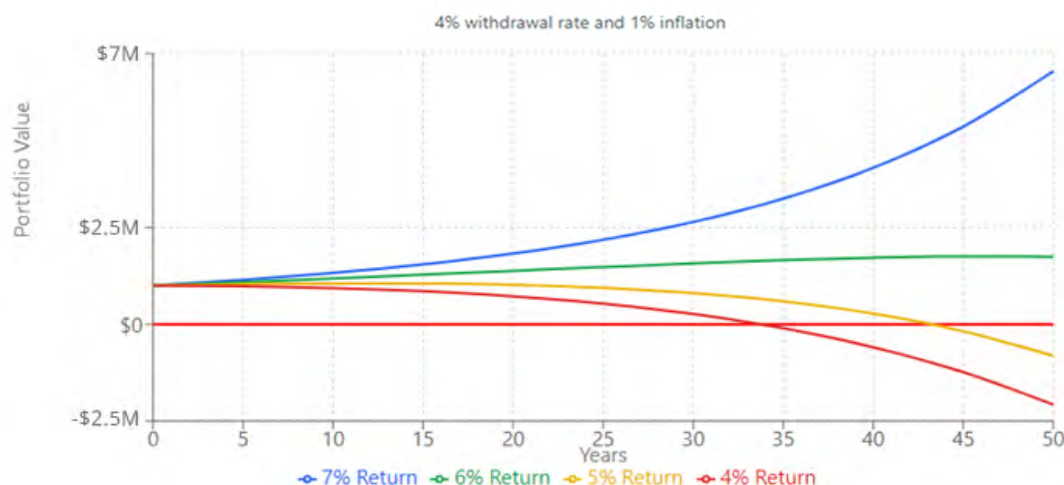
A 4% Withdrawal Rate

4% Withdrawal Rate and 1% Inflation

This incorporates the traditional 4% rule for income at favorable long-term inflation. We see that a net 6% return may be needed or a 5% spread over inflation. At a 5% net return, we may be good but would fail at a conservative net 4% return, failing in year 44.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.

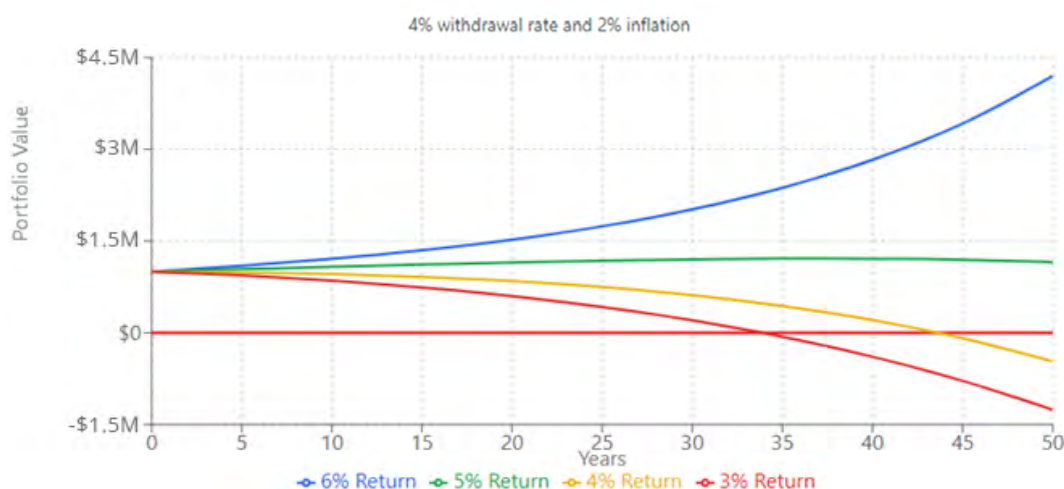


4% Withdrawal Rate and 2% Inflation

We are back to our friend 2% inflation and the 4% withdrawal rule. We see that now a net 7% return or a 5% spread over inflation is needed for optimal results. At a 6% net return and a 4% spread, we may be good but would fail at a moderate risk of a net 5% return, depleting the account in the 44th year.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.



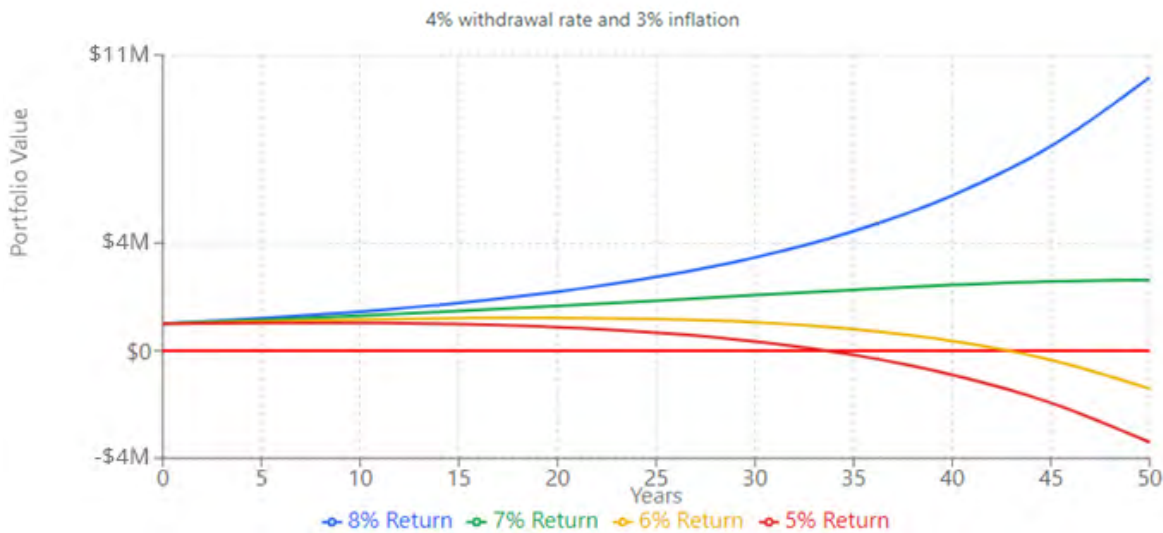
4% Withdrawal Rate and 3% Inflation

At higher 3% inflation, our returns and spread over inflation increase. We now need a 5% spread or a net 8% return for the best results. A net 7% return and a 4% spread over inflation would give us good results,

but we would fail at a net 6% return, which is a 3% spread, depleting the account in year 43.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.



The traditional 4% rule faces significant challenges in various inflation and longevity assumptions. Conservative portfolios targeting 4-5% returns may be too conservative even in low inflation and may require more growth-oriented allocation than traditionally recommended.

4% Withdrawal Rate Analysis

Source: Dunham, 2025. For illustrative purposes only.

Inflation Rate	Great Returns	Good Returns	Depletes
1% Inflation	6% net (5% spread)	5% net (4% spread)	4% net (3% spread)
2% Inflation	7% net (5% spread)	6% net (4% spread)	5% net (3% spread)
3% Inflation	8% net (5% spread)	7% net (4% spread)	6% net (3% spread)



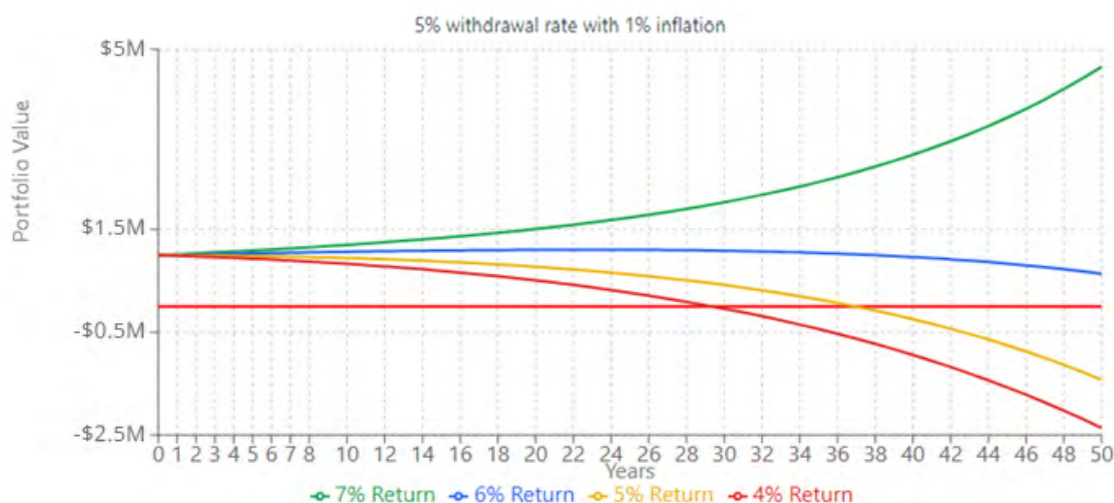
A 5% Withdrawal Rate

5% Withdrawal Rate and 1% Inflation

A high withdrawal rate, even at lower inflation, requires a net 7% return, representing a 6% spread over inflation. A 5% spread or a net 6% return gives us a good outcome, but we fail at a net 5% return, representing a 4% spread over inflation, depleting the account in year 37.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.

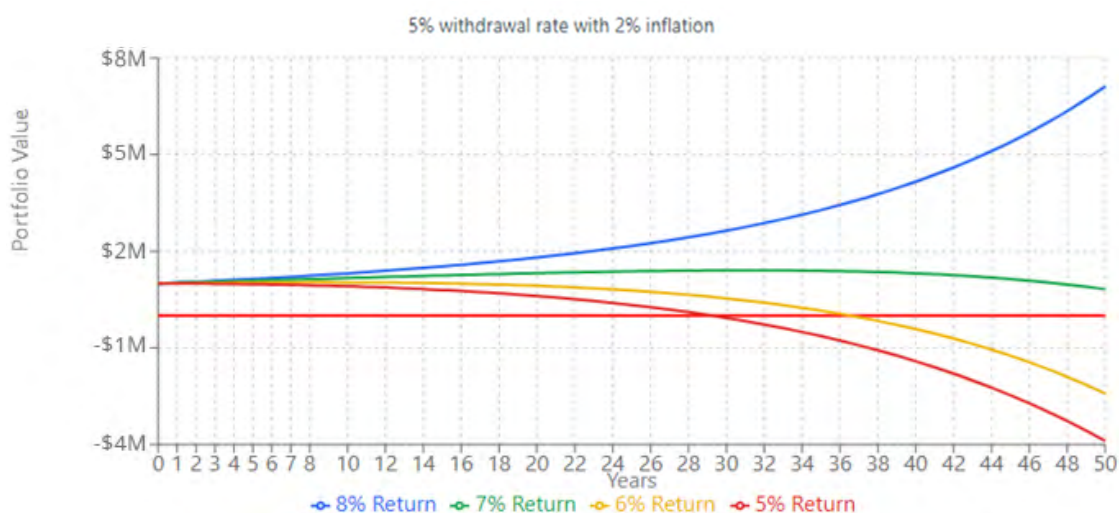


5% Withdrawal Rate and 2% Inflation

At 2% inflation, we now would require a net 8% return or a 6% spread over inflation. We now would need a 5% spread inflation or a 7% return for our good result, and we would deplete the account in year 37 by giving your client a net 6% rate of return, which is a 4% spread over inflation.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.

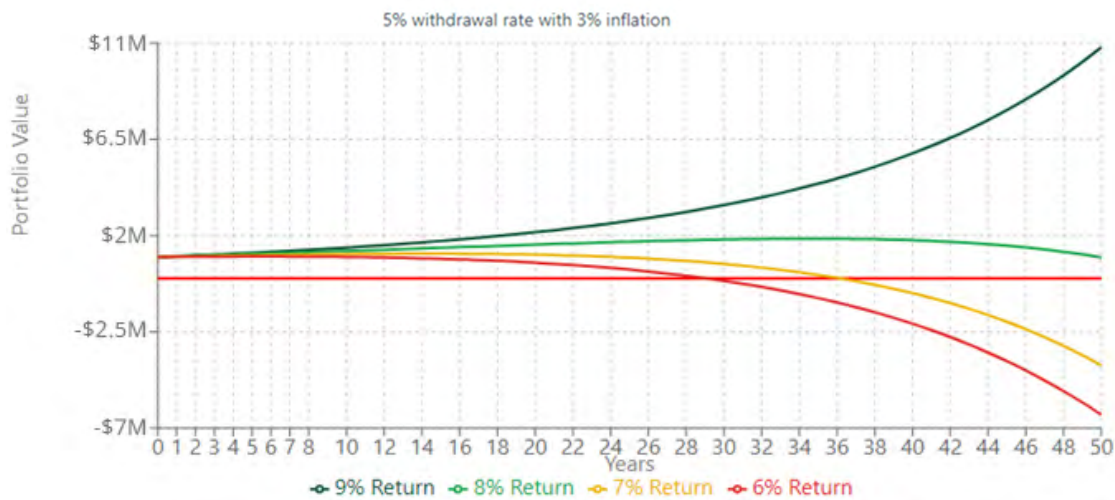


5% Withdrawal Rate and 3% Inflation

We need a net 9% return at higher inflation, representing a 6% spread over inflation. A net 8% or 5% spread over inflation would give us a good outcome, but at this higher income level and a higher level of inflation, a net 7% return representing a 4% spread over inflation would deplete the account in year 37.

Retirement Real Return Rule

Source: Dunham, 2025. For illustrative purposes only.



This higher income requires the highest returns of all withdrawal rates. We need a consistent 6% spread above inflation for great results. Each 1% increase in inflation requires a 1% additional return. This may require more aggressive portfolio management and perhaps taking on more market risk.

5% Withdrawal Rate Analysis

Source: Dunham, 2025. For illustrative purposes only.

Inflation Rate	Great Returns	Good Returns	Depletes
1% Inflation	7% net (6% spread)	6% net (5% spread)	5% net (4% spread)
2% Inflation	8% net (6% spread)	7% net (5% spread)	6% net (4% spread)
3% Inflation	9% net (6% spread)	8% net (5% spread)	7% net (4% spread)



Our research implies that living to potentially age 120 is not the greatest risk facing future retirees. It is surviving financially to age 120. What the industry labels as “prudent” and “conservative” retirement planning may systematically undermine retirees’ financial security, creating a generational crisis where millions outlive their assets.

The mathematics of extended longevity demand we consider abandoning traditional notions of conservative retirement planning. The greatest risk to retirees is not market volatility; it is the invisible threat of insufficient returns compounded across decades.

What the Math Actually Tells Us

What we are proposing here is not simple refinement of how our industry thinks about retirement planning. Frankly, it is a fundamental challenge to it.

The Retirement Real Return Rule does not ask advisors to adjust a number or revisit an assumption at the margins. It asks for something far more uncomfortable.

In an exciting world of longevity, it asks whether the portfolio we have been calling conservative is actually the single greatest threat to the very same retirement we sought to protect. Based on everything we have examined, we believe the answer is yes. However, growth-oriented strategies may involve substantially higher volatility and greater risk of loss, including losses early in retirement. Investors should consider both long-term inflation risk and market risk when determining an appropriate investment strategy.

Please understand we are not looking for controversy. We are simply looking at math.

At a 2% inflation rate and a 4% withdrawal rate, which are not dramatic assumptions and in fact I would say they are the assumptions that may currently sit in many retirement plans right now, a portfolio targeting 5% net returns would not survive a fifty-year retirement.

In fact, it does not come close,

And yet 5% net returns in a balanced portfolio is precisely what the industry has spent decades calling prudent.

We understand that this finding places a great burden on the advisor community. It asks advisors to have a conversation with clients that runs counter to everything the industry has taught both. It asks them to rethink what risk means in a world where people are living longer than the models ever anticipated.

But the retiree sitting across the desk today deserves that conversation. They deserve a portfolio built around what a potential fifty-year retirement actually may demand. The Retirement Real Return Rule exists because the math demands it, and because the people we serve deserve better than a plan that feels safe but may run out of time.

Closing Thoughts

The question that opened this paper was simple.

Is our industry prepared for retirees living longer?

The honest answer, after looking at the math of extended retirements and the compounding effect of inflation over 50 years, is that we are not. And the more uncomfortable finding is that the tools we have trusted most may be contributing to the problem we are trying to solve.

The industry that built the current retirement planning model used the then-current assumptions. A 20 to 25-year time horizon, managed with a conservative allocation and a modest withdrawal rate, may have been a sensible plan for a sensible lifespan.

The famous Wayne Gretzky quote said that what made him the “Great One” was that everyone skated to where the puck was, and he skated to where the puck was going to be.

Are we skating towards one of the most remarkable advancements in human history, extending our healthspan beyond what we can currently conceive?

Think about how many people you know who are in their 90s and potentially 100s and compare that number to just 10 years ago.

What the industry has not yet fully reckoned with is that the lifespan has changed, while how we plan may have not.

The Sequence of Inflation Risk, the Longevity Inflation Impact, the Target Sustainability Rate, and the Retirement Real Return Rule are our attempts to bring a sharp focus on this pressing topic.

We are not layering new concepts onto old assumptions, but instead, replacing the assumptions themselves. Retirement readiness is not a nominal return target. It is a spread above inflation maintained across however many years a person actually lives.

That may sound subtle, but across fifty years, it is the difference between a retirement that holds and one that quietly unravels.

The Great Wealth Mirage follows directly from this math.

The intergenerational wealth transfer the industry anticipates may be smaller than projected, not because markets are disappointed or because healthcare costs have consumed everything, but because the plan we currently use, applied to 50-year retirements, was designed for 20- to 25-year retirements.

And like the frog in the pot, the erosion is slow, silent, and it does not show itself until the options available to correct it are few.

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Dunham

About the Author

Salvatore M. Capizzi is EVP of Dunham & Associates Investment Counsel, Inc. (Dunham). With more than three decades of financial services experience, Sal is a seasoned industry leader with expertise in global sales and distribution, marketing, business development, and strategic planning. His career includes launching startups, reengineering organizations, and designing sales and marketing strategies that have significantly grown assets under management and profitability.

Before joining Dunham, Sal served as CEO of Global Wealth Management at ThomasLloyd Group, where he built sales and distribution across Europe and the Americas. He also held executive leadership roles at New York Life Investment Management, Chase Manhattan Bank, and Shearson Lehman Brothers. At BlackRock, he was Executive Vice President/Managing Director, where he helped launch and scale the firm's mutual fund business, creating its retail distribution platform and driving substantial growth during his eight-year tenure.

Sal earned a B.A. in History from Baruch College and holds FINRA Series 6, 7, 22, 24, and 63 registrations.

He is a recognized voice in the investment industry and an award-acknowledged thought leader. His retirement research white paper, *Is Our Industry Prepared for Retirees' Longer Lifespans?* — which introduced original frameworks including the Retirement Investment Paradox™ and Multi-Generation Retirement™ — earned Dunham a 2025 WealthManagement.com Wealthies Finalist nomination for Thought Leadership. In 2026, Sal was named a Wealthies Finalist for CMO of the Year. He shares ongoing thought leadership on market shifts and retirement strategies through features including an in-person appearance on Bloomberg Radio, a live interview on Yahoo Finance, and expert commentary quoted in Kiplinger, Financial Advisor magazine, ThinkAdvisor, and more.

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Salvatore M. Capizzi, CEPA, CBDA was nominated as a finalist for the 2026 Wealth Management Industry Awards for Chief Marketing Officer of the Year.

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