PLANNING FOR RETIREMENT INCOME WITHIN AN INCREASINGLY VOLATILE AND UNCERTAIN WORLD

BY COLIN DEVINE, *education fellow, Alliance for Lifetime Income, and* **KEN MUNGAN,** *chairman, Milliman*

As a result of the quickly evolving economic, market and public health environment created by the coronavirus pandemic, many Americans are looking for guidance on whether and how to adjust their retirement plans and financial advisors are looking for resources to inform and educate clients. Some of the anxiety brought on by big swings in the markets – up or down – is a normal response to a predictable risk. Experts call it "sequence of returns risk," and it refers to the long-term impact on an individual's retirement income plan from a significant drop in the stock market during the years immediately prior to or during the first decade post-retirement. Recently, our firms partnered to conduct new analysis and research on the impact that sequence-of-returns can have on individual retirement income plans.

Prior to the pandemic's onset and its economic repercussions, Americans were enjoying more opportunities in retirement than preceding generations. Only time will reveal the long-term effects of recent events. However, the evolving picture of what the next phase of life should and can be – the "new retirement" in some parlance – has been met over the last several years by and large with hope, optimism and excitement. Hope, however, should not be the basis for a truly comprehensive retirement "income" plan, with the current market downturn being an all too poignant reminder of that.

In a recent study by the Alliance for Lifetime Income, 91% of respondents said they believe they can successfully plan for retirement. However, the optimism Americans expressed has historically been restrained by a persistent anxiety that they might run out of money. Eight in ten non-retired Americans indicated so much in the Alliance's research. That anxiety is not unfounded – the challenge of planning for retirement income in the context of longer lifespans, health in old age, equity market volatility and inflation are very real. And while it is not possible to eliminate these risks entirely, they can be effectively managed with tools available today.

For the financial professionals who have the opportunity and responsibility of walking alongside their clients in preparing for this new retirement, the question of how to construct comprehensive retirement plans and financial portfolios to satisfy expectations and the desire for peace of mind in this next life phase has never been greater. And even more so for the 83% of retirement-savers who do not have the security of a traditional defined benefit pension. Doing so could involve consideration of a broad mix of equity and fixed income instruments such as stocks, bonds, exchange traded funds, dividend income funds, certificates of deposit and annuities to augment Social Security and Medicare benefits.

We set out to explore and analyze whether traditional retirement income planning strategies – for example, the commonly used "4% withdrawal rule" – are sufficient to meet and mitigate the many financial risks that retiring Baby Boomers and subsequent generations will carry with them into later life. The results provided by our research and models present substantial cause for concern, particularly within a world where increasing volatility has argu-

ably become the norm. Fortunately, we believe there are certain tested approaches to providing protected lifetime income that can help offer the financial security and peace of mind Americans are seeking as they enter a phase that for many could be a third of their lifetime.

LONGEVITY, VOLATILITY AND RETIREMENT INCOME

Retirement income planning is one of the most highly personal, complex and least understood financial journeys individuals face today. As more Americans enter retirement without the protection of a traditional defined benefit pension plan, the potential ramifications of inadequate income planning have become more immediate. When determining post-retirement income requirements there are two key variables a person faces: (1) how long they are going to live and (2) how healthy they are going to be. But we also found that a third factor, equity market volatility, specifically during the first ten years of retirement can also materially affect how long savings will last. In addition, a fourth issue to consider is the impact of inflation over time on purchasing power given retirements that could easily extend for 20-30 years.

The good news is we are all living longer. Ironically, that is also the challenging news.

C. Devine & Associates and Milliman, on behalf of the Alliance for Lifetime Income, examined how a significant equity market correction – defined as a 20% market drop within an individual's first ten years of retirement – impacts the risk of running out of income during his or her remaining lifetime. We also explored possible solutions to help mitigate this risk around a construct that assumed most people could tolerate a negligible investment return or a modest reduction of up to 10% in the level of their retirement income, but varying the latter in direct proportion to equity market movements would simply not be realistically feasible.

Our analysis suggests that even for an individual utilizing both a conservative 60:40 equity:fixed income investment mix and a moderate 4% withdrawal rate indexed for inflation, there is a significant risk of running out of income should they achieve even average life expectancy while enduring an equity market correction during their first decade in retirement. Economists call this sequence-of-returns or sequence risk.

For example, utilizing this investment and withdrawal strategy and assuming a random 20% equity market decline sometime within the first 10 years, our analysis found that the risk of running out of income was:

- 11.0% during the first 19 years (average life expectancy for a male aged 65);
- 20.0% over the first 22 years (average life expectancy for a female aged 65); and
- 34.6% within the first 27 years (combined average life expectancy for one member of a male/female couple both age 65)

Simply put, many Americans entering retirement face a considerable level of financial risk from the trifecta of longevity, equity market volatility and the uncertainty of health costs in old age and long-term care. In addition, even a 2% inflation rate necessitates doubling of retirement income over 35 years to maintain purchasing power; a realistic planning horizon for healthy individuals. Looked at another way, the economic value (not to mention peace of mind) of protected lifetime income – once upon a time provided by a traditional pension – may be far greater than most people or their financial advisors realize. It may also help explain why a 2019 survey conducted by the Alliance for Lifetime Income revealed that only 42% of non-retired Americans believe their savings and income from other sources will last their lifetime.

PLANNING RETIREMENT INCOME

One of the most difficult challenges someone faces when reaching retirement is developing an appropriate decumulation or income strategy for their retirement nest egg. We put aside any considerations about estate planning or intra-generational wealth transfer, which was beyond the scope of this whitepaper. Our intent was to focus on raising awareness of potential post-retirement risks from market movements and longevity so that individuals in consultation with their financial advisors could develop a suitable strategy to identify a prudent amount of savings that could be utilized each year to live on during retirement.

According to the U.S. Census Bureau, the U.S. is five years away from having the most 65-year-olds in its history, when in 2024 a record 4.5 million Americans will reach this milestone. The Life Insurance Marketing Research Association (LIMRA) estimates there are over 50 million retirees in the U.S. today and by 2035 they project that number will reach 72 million.

FOUR KEY RETIREMENT INCOME PLANNING RISK FACTORS

1. Longevity

With respect to longevity, average life expectancy for a male age 65 is 19 years, while for a female it is 22 years. Combined, there is a 50% probability that one member of a male-female couple age 65 will survive 27 years or until around age 92; a 25% chance of one person reaching age 97; and about a 5% chance of them living to age 100. About a third of all 65-year-olds today will live past age 90, with about one in seven living beyond age 95. Making this even more challenging is an average standard deviation of around 10 years for both male and female life expectancy. Given these figures, coupled with the tendency of most individuals to believe they can "beat the average", a reasonable retirement planning horizon might be in the 30-35-year range, or to age 95-100.

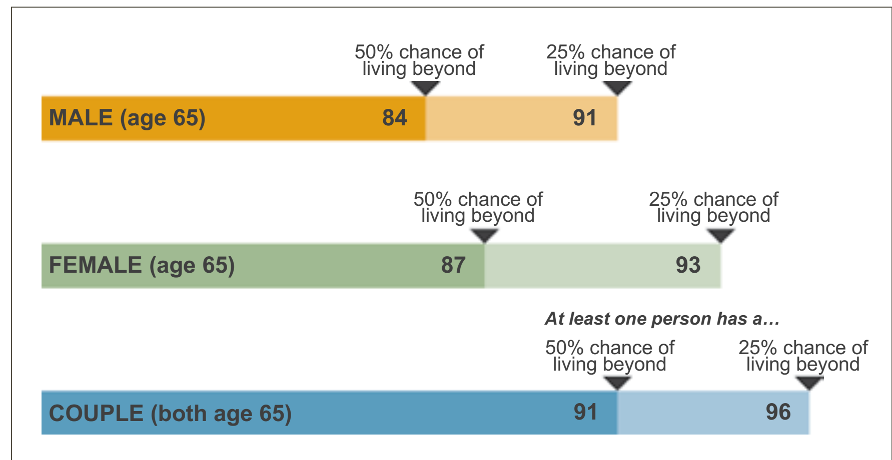
2. Health

In terms of older age health, there is around a 50% chance of a 65-year old adult having some level of physical or cognitive impairment over the remainder of their life. More to the point, if older-age health had any measure of predictability then it would seem reasonable to expect that insurers would still be selling traditional morbidity-based long-term care policies. The fact that most have exited the business over the last 5 to 10 years might suggest they consider this to be a largely uninsurable risk.

3. Equity Market Volatility

If recent history has taught us anything, it's that financial and real estate markets are volatile. While over time equity markets have generally risen, there have been multiple periods, such as December 2018 or during the financial crisis of 2008-2009, when they have fallen sharply. To plan for this, our premise was to define an equity market correction as a decline of 20% and then assess the impact from this happening within the next ten years. Our assumption for purposes of this analysis was a 100% chance of a 20% equity market decline.

Exhibit 1: Mortality – Good News/Bad News



Source: Milliman, based on the Annuity 2000 Basic mortality table

Exhibit 2: S&P 500 Index 10-Year Performance

Source: 'https://www.macrotrends.net/2488/sp500-10-year-daily-chart'>S&P 500 - 10 Year Daily Chart. Retrieved March, 18, 2020

4. Inflation

A 2% annual inflation rate neces-

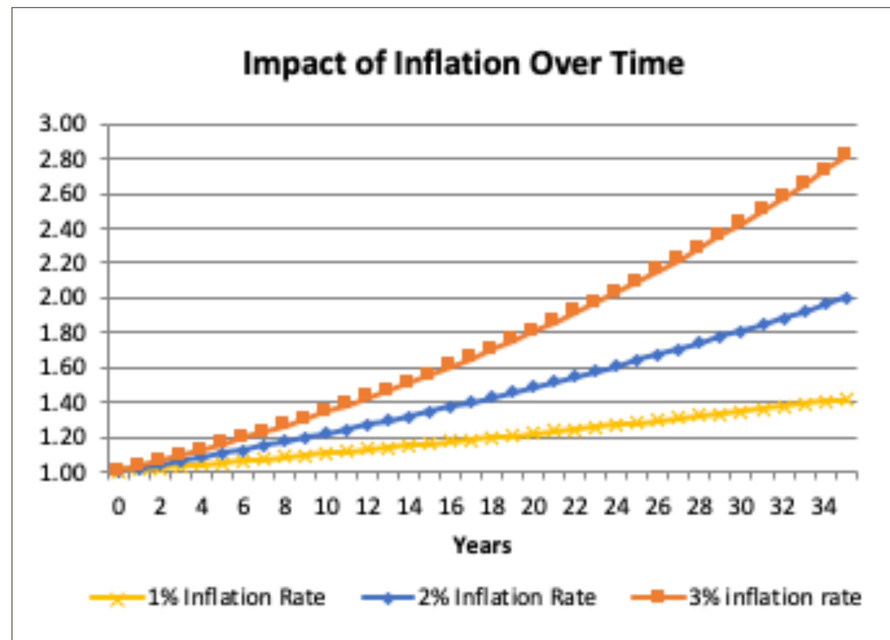
sitates doubling of an individual's retirement income over 35 years to maintain purchasing power. By comparison, a 3% inflation rate would shrink this to 23.5 years and require income to nearly triple during a 35-year retirement – or by age 100 for a person that retired at age 65. Even a 1% rate would necessitate a 41% increase in retirement income over 35 years.

WHAT WITHDRAWAL RATE OFFERS AN ACCEPTABLE LEVEL OF RISK?

The steep decline in interest rates over the past two decades has seen yields on 10-year U.S. Treasury Bonds fall by about two-thirds, to their current level of around 1.12%. Conventional financial planning wisdom in response to this has been to reduce systematic withdrawal rates from a range of 5% to 6% down to 4% or lower. Our research asked whether 4% is still too high. The conundrum of course is that a 4% withdrawal rate would imply annual income of only $40,000 for an individual with $1 million of retirement assets; a savings level several multiples of what the average American has typically put aside. To help illustrate this, in a 2018 report the Stanford Center on Longevity estimated that nearly one-third of Baby Boomers had nothing saved in retirement plans and for those with positive balances the median amount saved was approximately $200,000.

Selecting an appropriate retirement income strategy requires making some hard assessments and assumptions about individual risk tolerance, longevity and older age health. It also implies the realization of a somewhat binary occurrence: either a person is able to keep drawing income from their retirement savings or they face the alternative of running out of mon-

Exhibit 3: Impact of Inflation on Purchasing Power over Time



Source: C. Devine & Associates

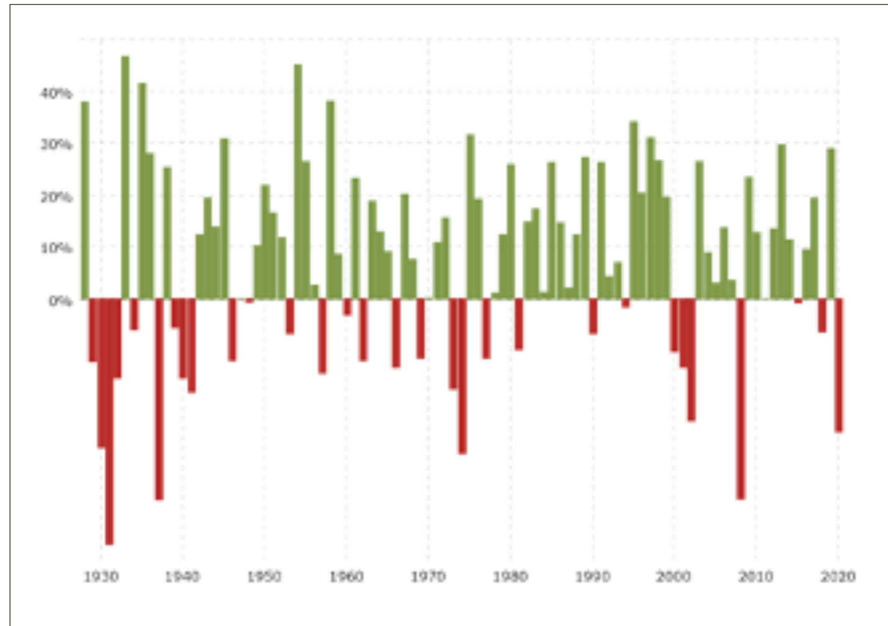
Exhibit 4: 10-Year U.S. Treasury Yields

Source: 'https://www.macrotrends.net/2016/10-year-treasury-bond-rate-yield-chart'>10 Year Treasury Rate - 54 Year Historical Chart. Retrieved March 18, 2020.

ey. Practically, while there would be some intermediate course of action taken to delay the latter, the analysis highlights the risk of either running out of income outright or of having to make an income withdrawal reduction in order respond to that risk.

Utilizing Milliman's economic scenario generator, we randomly projected 10,000 future equity market and interest rate scenarios over a period of fifty years. We then tested this against a mix of three different withdrawal rates of 4%, 5% and 6% and three different equity:bond allocation mixes of 60:40, 70:30 and 80:20. The only other factors were indexing withdrawal levels to a 2% inflation rate and an assumption that an equity market correction/drop of 20% randomly occurred somewhere within the first 10 years. As illustrated in the chart below, on an annualized basis the S&P 500 has produced negative 20%-plus returns twice in the last 20 years

Exhibit 5: S&P 500 Annual Returns



Source: 'https://www.macrotrends.net/2526/sp-500-historical-annual-returns'>S&P 500 Historical Annual Returns. Retrieved March 19, 2020.

SELECTING A WITHDRAWAL RATE

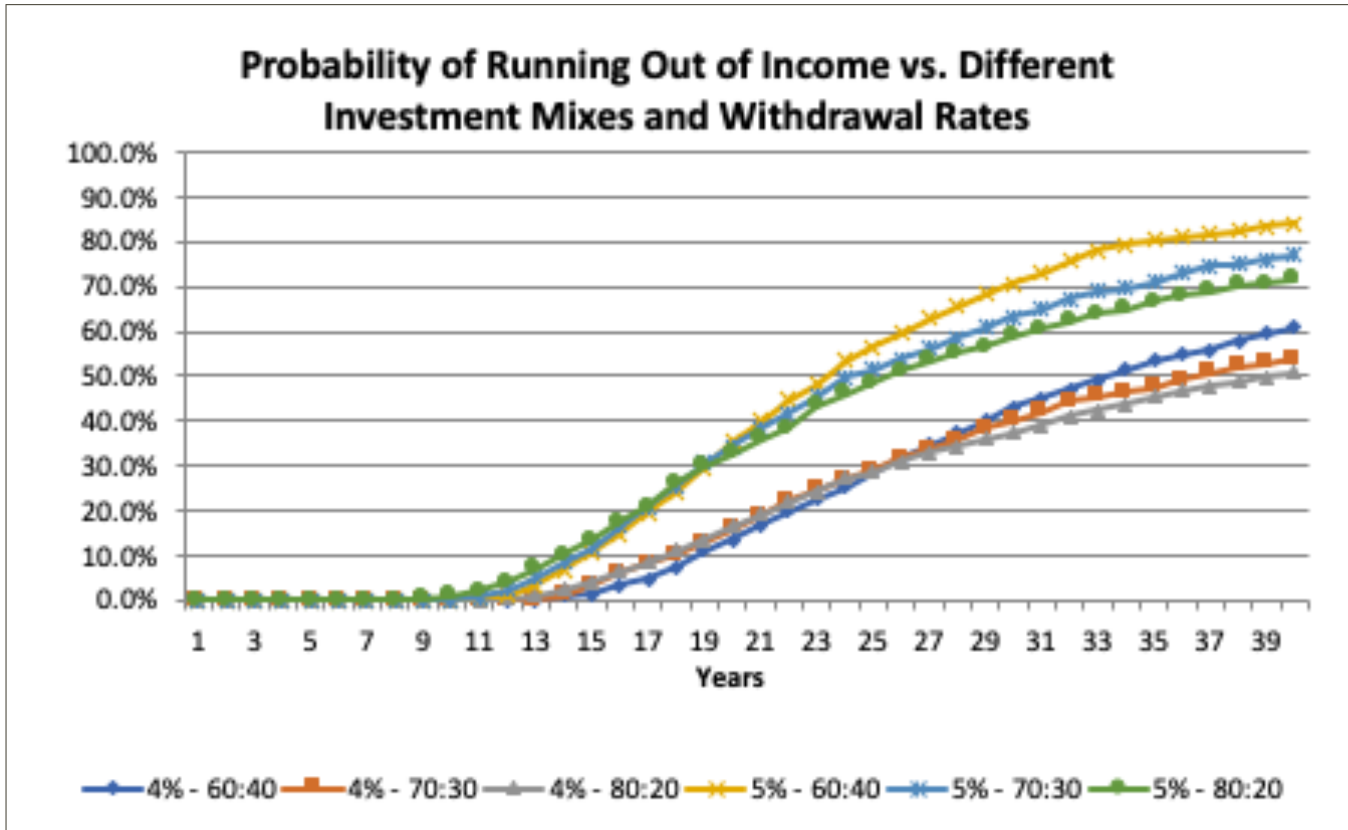
While a 4% withdrawal rate has become the current standard for most financial planners, we also ran the analysis using 5% to illustrate how raising the withdrawal rate can materially increase the risk of running out of savings. In addition, we tested a 6% withdrawal rate as this is roughly the current payout factor for a traditional single premium immediate annuity (SPIA). As such, it provides a measure of the "insurance" or "mortality pooling" benefit of an annuity not to mention the higher level of annual income.

The risk of running out of income during the first 20 years using a 4% withdrawal rate is around 16% and roughly double that if the withdrawal rate is increased to 5%.

While adopting a higher level of equity allocation can modestly lower the risk of running out of income because it reduces exposure risk to market volatility, it also increases the risk of running out of retirement savings sooner because over time it can produce lower returns. That is to say that while allocating a higher mix to equities improves the probability of a retirement account lasting longer as a source of income because over time they generally generate a higher investment return, it also increases the risk of near-term equity market corrections which could cause a retirement account to become exhausted sooner.

With a 60:40 investment mix and a 6% withdrawal rate there is about a 60% chance of running out of income within the first 20 years. By comparison, a SPIA because of the benefit from actuarial mortality pooling would provide fully protected stable lifetime income. The 6% payout factor or income from the SPIA is also 50% higher than using a 4% withdrawal rate, but the tradeoff, depending on the exact policy features of a particular SPIA, could be giving up liquidity and a death benefit.

Exhibit 6: Savings Depletion Risk vs. Withdrawal Rates and Investment Mix



Source: Milliman and C. Devine & Associates

RISK OF RUNNING OUT OF INCOME IN RETIREMENT

Not surprisingly, the risk of running out of income can begin to rise rapidly once a person gets beyond their first 15 years in retirement. This also highlights the significantly greater risk faced by women given their longer average life expectancy. As shown by the table below, the probability of running out of income in year 22 vs. 19, the average life expectancy of females vs. males age 65, is almost double when using a 4% withdrawal rate. Of course, only focusing on average life expectancy for income planning purposes is not sufficient as half of the population could be expected to exceed it; particularly as the standard deviation for longevity is about 10 years. Extending the time horizon out to 25, 30, 35 or even 40 years suggests that for each of these time periods there is simply much too high a risk of outliving income.

In fact, even the risk of running out of retirement income during their first 15 years may be too high for many individuals, particularly if a withdrawal rate of greater than 4% is utilized.

The analysis also showed the implicit tradeoff between selecting a higher equity:fixed income investment mix and the risk of running out of income sooner. While an 80:20 strategy produced a lower overall risk of running out of income over an individual's lifetime, it also increased the risk of running out of income sooner because of the higher exposure to equity market declines. For example, when using a 4% withdrawal rate and an 80:20 equity:fixed income mix, our analysis revealed that the earliest savings were exhausted was in year 10, which compared to year 13 for the more conservative 60:40 mix.

In order to illustrate the potential incremental risk to retirement income that arises from our assumed 20% random equity market drop within the first 10 years of retirement; we also ran the analysis assuming this did not occur. For this, equity market and fixed income performance

Exhibit 7: Income Risk Assuming 20% Equity Market Correction Within First 10 Years

Probability of Running Out of Income – With 20% Random Equity Market Drop in First 10 Years									
Withdrawal Rate	Allocation - Equity : Bond	Year 15	Year 19	Year 22	Year 25	Year 30	Year 35	Year 40	Earliest Year
4%	60:40	1.5%	**11.0%**	**20.0%**	28.8%	43.0%	53.4%	60.9%	13
4%	70:30	3.4%	**12.7%**	**22.3%**	29.1%	40.1%	47.5%	53.9%	12
4%	80:20	4.1%	**13.6%**	**21.9%**	28.8%	37.3%	45.5%	50.8%	10
5%	60:40	10.7%	**29.7%**	**44.8%**	56.7%	70.7%	80.4%	84.3%	10
5%	70:30	11.9%	**30.8%**	**41.8%**	51.5%	63.3%	70.9%	77.1%	10
5%	80:20	13.4%	**29.9%**	**38.4%**	48.5%	59.0%	66.5%	71.7%	9
6%	60:40	25.3%	**54.7%**	**71.4%**	80.6%	89.0%	92.4%	95.3%	9
6%	70:30	25.0%	**50.8%**	**64.7%**	72.5%	81.9%	86.9%	89.6%	8
6%	80:20	26.3%	**47.6%**	**59.8%**	67.6%	76.6%	82.6%	85.3%	8

Source: Milliman and C. Devine & Associates

Exhibit 8: Income Risk Assuming No 20% Equity Market Correction Within First 10 Years

Probability of Running Out of Income – No Random 20% Equity Market Drop in First 10 Years									
Withdrawal Rate	Allocation - Equity : Bond	Year 15	Year 19	Year 22	Year 25	Year 30	Year 35	Year 40	Earliest Year
4%	60:40	0.5%	**3.3%**	**7.1%**	11.9%	21.3%	29.7%	38.0%	14
4%	70:30	0.7%	**4.7%**	**8.3%**	13.0%	21.6%	28.3%	35.2%	13
4%	80:20	1.4%	**5.7%**	**9.6%**	14.8%	21.6%	28.0%	33.9%	12
5%	60:40	2.8%	**10.8%**	**22.1%**	30.3%	44.6%	54.8%	62.2%	12
5%	70:30	4.1%	**12.1%**	**21.9%**	29.4%	40.2%	49.2%	56.2%	11
5%	80:20	5.4%	**14.2%**	**22.1%**	29.4%	38.2%	46.2%	51.2%	10
6%	60:40	8.6%	**27.9%**	**40.9%**	52.4%	67.6%	74.3%	81.4%	10
6%	70:30	9.5%	**27.5%**	**38.2%**	47.0%	61.4%	68.5%	73.0%	10
6%	80:20	10.9%	**27.4%**	**37.2%**	44.8%	55.0%	63.2%	67.7%	9

Source: Milliman and C. Devine & Associates

was projected solely by Milliman's economic scenario generator. What becomes apparent when comparing the table below with the one above is the material difference between both the risk of running out of income in any given year and investment mix as well as the earliest year at which the retirement account becomes fully depleted.

Introducing the risk posed by even a single equity market correction can be a game-changer.

With respect to retirement income planning a key takeaway is that while a 4% withdrawal rate may produce a tolerable level of risk of exhausting savings within the first 19-22 years of between 3.9% to 9.6% per the table below, the introduction of a random 20% equity market drop during the first decade of retirement would make this far less palatable by more than doubling it to 11.0%-21.9%, per the table above. What is also very clear is that there is no scenario or investment mix where a 5% or higher withdrawal strategy appears prudent.

POTENTIAL SOLUTIONS TO THE RETIREMENT INCOME PUZZLE

In the wake of the now decade-long low interest rate environment that appears to have no near-term end in sight, it has become significantly more expensive and difficult to identify an appropriate retirement income strategy. In addition to Social Security, the only other source of protected lifetime income available to an individual beyond a traditional defined benefit pension is an annuity. While many investments — such as mutual funds, ETFs and bonds — are often used with the goal of generating income over a lifetime, across the investment spectrum, annuities continue to be the only financial product that specifically provide lifetime income and in fact are what underlies traditional DB pension payments.

Annuities come in a variety of options that may be tailored to individual needs and circumstances such as health, liquidity and risk tolerance. They can be immediate, which involves starting the income stream right away, or they can be deferred to some future date at which payments can begin for either a set time period or for the rest of an individual's life.

For those who want to take advantage of potential gains in the stock market but still maintain a level of protection against losses, an index annuity is something to consider. It offers returns, up to certain limits, based on the performance of a specific market index, such as the Standard & Poor's 500 Index. However, principal is not affected even if the index declines. Indexed annuities are designed for people who want to take advantage of both income protection and growth but are willing to take on a bit more risk in hopes of a higher return rate.

Another option are variable annuities which tie the rate of return directly to professionally managed funds, much like a mutual fund. They stand to gain when the investments go up but are also susceptible to losses if the stocks and bonds that comprise the underlying funds, called sub-accounts, decline. However, there is commonly an option with variable annuities to purchase features that protect income, known as "living benefits" even if the market falls, although these features may come with certain limitations.

For planning purposes, a key decision to consider may be what an individual believes is the risk of an equity market correction occurring during the early years of their retirement. This is known as "sequence-of-returns" risk. It can leave an individual exposed to equity market fluctuations by having to drawdown a greater portion of their retirement savings to maintain income during periods of equity market turmoil. That, in turn, can leave less remaining money invested to participate in a future market recovery, thereby increasing the risk of running out of savings. In an increasingly volatile world, planning for such a potential scenario and structuring a retirement income portfolio to guard against such a risk seems both prudent and realistic. It also supports the case for utilizing some type of annuity as insurance against that risk.

Income annuities

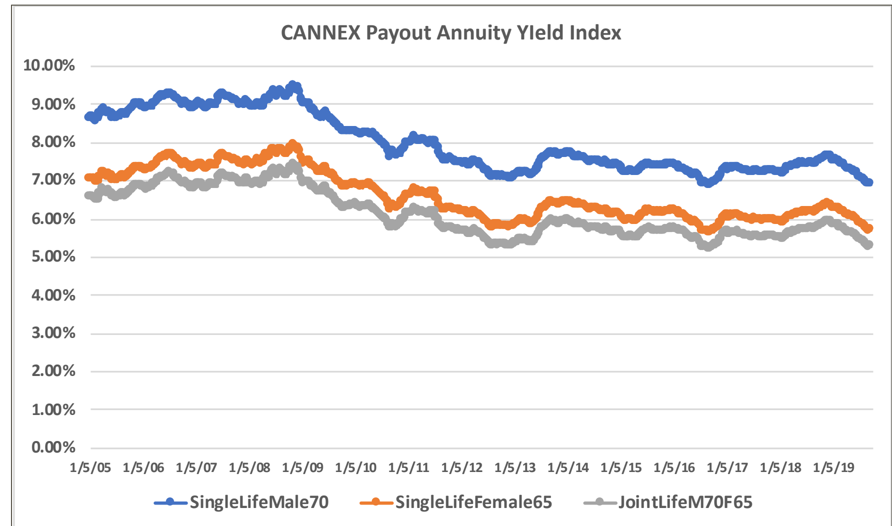
Lifetime income can be achieved using either a traditional fixed single premium immediate annuity (SPIA) or a variable annuity (VA) or fixed indexed annuity (FIA) with a guaranteed lifetime withdrawal or annuitization benefit. Each of these may require the commitment of a significant portion of retirement savings as typical payout levels for a SPIA for a 65-year old male are currently about 6% and for a VA living benefit would be around 4%.

The reason an income annuity is able to provide a source of lifetime income is because of risk pooling. By spreading the financial risk among a large number of participants, an insurer is able to offer everyone in the pool protected lifetime income because those who live longer receive subsidized payments from the individuals in the pool who did not live as long. This concept actually goes back 5,000 years when shippers needed a way to protect against the loss of cargo and crews at sea.

One factor of retirement planning that can be overlooked is how the cost of purchasing income has risen. Tied to the decline in interest rates over the past decade, as the following chart shows, annuity payout factors have steadily decreased thereby making the cost of securing income progressively more expensive. For example, back at the beginning of 2005 a couple male aged 70 and female aged 65, with $1 million could have purchased joint annual lifetime income of approximately $65K; securing that same level of income today would cost about $1.25 million or about 25% more.

This suggests an alternative way to measure performance of a retirement account such as a 401(k) or IRA is not by growth in account value, but rather by how much lifetime income it will provide.

Exhibit 6: Savings Depletion Risk vs. Withdrawal Rates and Investment Mix



Source: CANNEX Financial Exchanges Limited

Deferred income annuities

Another option to address longevity risk could be a deferred income annuity (DIA). Commonly referred to as "longevity insurance," a DIA can ensure protected lifetime income should a person live beyond age 80 or 85. Whereas life insurance is designed to provide financial protection against the risk of dying young, a DIA is intended to address the other side of the coin as it were and offer protection against the risk of living long. They are a pure mortality/longevity product analogous to term life insurance in that neither has a savings component with the benefit for both being trigged solely by the death or longevity of the insured.

In terms of mechanics, a DIA is an insurance policy that pays a benefit beginning on the age payout date selected. Thought of another way, life insurance pays a benefit when a person dies, a DIA pays a benefit when they live. With respect to payouts factors, a $100,000 purchase of a DIA by a male age 65 would produce annual lifetime income payments of around $27,000 at age 80 or about $55,000 from age 85 on.

Another attractive feature of DIA's, known as Qualified Longevity Annuity Contracts (QLACs) when held within an IRA is that per a 2014 ruling by the U.S. Treasury Department, they are not subject to required minimum distributions (RMDs). The maximum amount that can be contributed to a QLAC is 25% of the December 31, 2018 IRA balance up to a limit of $130,000 for 2019.

Illustratively, looking back at the tables in the prior section, one strategy an individual could adopt would be to utilize a 4% withdrawal rate for their first 15 years of retirement and combine this with a DIA that began lifetime income payments at age 80. This would eliminate the risk of running out of income assuming retirement account assets were adequate for the initial 15 years. Arguably, the risk mitigation benefits of a DIA become even more attractive if the planning horizon is extended towards average life expectancy of 19-22 years; particularly should the 20% equity market decline happen during the first decade of retirement. Another possible strategy might be to split a DIA purchase between one contract that begins payments at age 80 and the other at age 85 in order to ensure additional funds were available for older age health costs.

Other possible strategies

Beyond the use of conservative withdrawal strategies and annuities, some other options available to lower the risk of running out of savings in retirement include working longer or continuing at least part-time employment, as well as saving more.

One thing that seems abundantly clear is income management in retirement needs to be an active dynamic process responsive to changes in both economic factors as well as personal ones such as health.

RETIREMENT INCOME SECURITY EVALUATION (RISE™) SCORE

As part of its mandate to raise awareness of the need to plan for retirement income, The Alliance for Lifetime Income in conjunction with Milliman developed the Retirement Income Security Evaluation Score (RISE Score™). In essence, it can be thought of as a credit score for your retirement. On a scale of 0–850, it is intended to give individuals a better understanding of their risk levels and how prepared they are for retirement. Eight in ten non-retired Americans (80%) express anxiety that their savings may not provide enough to live on in retirement, according to a landmark survey of 3,119 U.S. adults by the Alliance for Lifetime Income. This Census-balanced survey is the second in an ongoing research program tracking the level of protected versus unprotected households in the United States.

The purpose of the RISE Score™ is to offer an estimated measure of income security to help a person determine whether they are on track with their current retirement income plans. It provides a tool for both financial advisors and individuals to assess how well a retirement portfolio will cover basic living expenses and health care costs in retirement. The RISE Score™ focuses on retirement security rather than just predicting whether savings will cover expenses. Using proven mathematical methods like stochastic modeling for inflation, market returns, and longevity, it compares results over all scenarios and the worst 10% of scenarios. Then, the RISE Score™ considers how retiree behavior may impact withdrawal patterns over time. The mathematical result is expressed as a score to offer individuals better insight for their broader financial retirement planning.

The RISE Score™ is also designed to help answer this simple question: How can my retirement security potentially be improved through the addition of lifetime income solutions in my retirement planning strategy?

It can be found at the Alliance for Lifetime Income's website: https://www.protectedincome.org/retirement-tools/rise-calculator/

The RISE Score™ is only one piece of information an advisor or consumer could consider when recommending or purchasing a protected lifetime income solution. There are other considerations when selecting a protected lifetime income solution that are not captured in the RISE Score™ model or in the Alliance for Lifetime Income's RISE Score™ Tool, including but not limited to the product's issuing company, actual product design and fees, liquidity preferences, financial goals, and health status.

ABOUT THE AUTHORS

C. Devine & Associates – Colin Devine is an education fellow for the Alliance for Lifetime Income, a non-profit 501(c)(6) organization focused on helping educate Americans on the risk of outliving their savings so they can enjoy their retirement. Colin also provides strategic consulting services to the insurance and investment management sectors and is a Senior Advisor to Health Catalyst Capital, a venture capital fund that invests in high-growth transformative InsurTech-enabled services businesses.

Milliman – Ken Mungan is chairman of Milliman, a member of the Alliance for Lifetime Income. Milliman is the premier independent provider of actuarial and risk management services to the insurance industry and self-insured organizations worldwide. The company's groundbreaking work in employee benefits and financial risk management has led to significant innovations in retirement planning, including the Milliman Managed Risk Strategy™ and the Milliman Sustainable Income Plan™. As the leading provider of actuarial, analytical, and data management solutions in the U.S. healthcare industry, Milliman has played a prominent role in the implementation of the Patient Protection and Affordable Care Act of 2010 (ACA).

While Milliman's roots are actuarial, the company has expanded its capabilities to include enterprise risk management, retirement plan administration, predictive analytics, healthcare efficiency, and a range of other consulting and technology solutions. Milliman has be a leader in enterprise computing since the 1960s, and that leadership continues today with cloud-based solutions like Integrate®, the industry's foremost actuarial transformation system.

Alliance for Lifetime Income – The Alliance for Lifetime Income is a non-profit 501(c)(6) educational organization based in Washington, D.C., that creates awareness and educates Americans about the value and importance of having protected lifetime income in retirement. Our vision is for a country where no American has to face the prospect of running out of money in retirement. The Alliance provides consumers and financial advisors with educational resources, interactive tools, and actionable research and insights to use in building retirement income strategies and plans. We believe focusing attention and conversations on retirement income that lasts throughout life leads to greater retirement security for millions of Americans. Learn more at www.allianceforlifetimeincome.org and www.ProtectedIncome.org.