

**BlackRock**

# Retiring with confidence

A case for fixed indexed annuities in accumulation





**Partha Mamidipudi**  
Managing Director,  
Head of Human  
Capital Research,  
Retirement Solutions



**Igor Zamkovsky**  
Director, Head of Indexed  
Annuity Strategy,  
Retirement Insurance

## Executive summary

Six in 10 Americans say they need to catch up on their retirement savings.<sup>1</sup> These savings need to be invested and grown prudently to help individuals secure their retirement. The continued decline in bond market yields and reduced expectations for long-term equity returns going forward only make this problem more acute.

This paper highlights a case study on the use of fixed indexed annuities (FIAs) as an allocation option for pre-retirees accumulating assets for their retirement. Our key findings are:

- An FIA allocation offers greater upside in the “median” scenario when suitably funded.
- An FIA allocation reduces extreme bad outcomes in balanced portfolios.
- FIAs improve median and worst outcomes for conservative and cash-heavy portfolios (assuming liquidity needs have been met).
- Incorporating an FIA with an underlying volatility-controlled index can help provide more certainty around future portfolio values.

<sup>1</sup> TD Ameritrade, September 2019.

# Introduction

## What keeps you up at night?

Through a year of extraordinary health, economic and social challenges, this question has been at the center of every client conversation I've had. As Head of BlackRock's Retirement Group, I regularly meet with plan sponsors and heads of benefits, as well as consultants and financial advisors, to better understand participants' evolving needs around financial security.

We all know that the pandemic did not cause America's retirement crisis — but it did shine a spotlight on some of its deepest cracks.

Before COVID-19, nearly half of private sector workers lacked access to an employer-sponsored retirement plan — with small business, lower-income and younger workers most affected, alongside minorities and women.<sup>2</sup> Among those who do have retirement accounts, savings levels are largely inadequate and sustainable spending strategies fall short. In fact, the Boston College Center for Retirement Research predicts that half of U.S. households will not have enough income to maintain their standard of living in retirement.<sup>3</sup>

The economic impact of the pandemic further undermined retirement security. By January 2021, nearly 30 million Americans were either out of work or faced employment reductions, triggering even greater financial uncertainty.<sup>4</sup> At the same time, fixed income yields are hovering at historic lows and, going forward, equity returns are expected to be lower than their longer-term average — meaning people will need to find alternative return-generating strategies to meet the same investment objectives.<sup>5</sup>

Given these conditions, it's hardly surprising that over half of Americans say that the pandemic has increased concerns about their ability to achieve financial security in retirement.<sup>6</sup>

Fortunately, these concerns did not spur massive outflows as they did in 2008. This time, we observed that participants largely stayed invested in their workplace retirement plans through periods of market volatility — thereby capturing the rebound. In many ways, I see this as a testament to the strengths of our retirement system. Through industry-wide innovations in product and plan design, we have built plans that are resilient and encourage participants to maintain a long-term outlook.

At BlackRock, we believe in building on what is working. And, as we start to envision a post-COVID world, we need to work together as an industry to build a more financially secure future for the American workforce.

Providing participants with more secure outcomes is an essential component of this vision. And we believe that, within the context of a whole portfolio, accumulation-focused fixed indexed annuities (accumulation FIAs) may help retirees achieve precisely that.

To test this theory, I asked our Retirement Insurance and Retirement Solutions experts to conduct research into the effects of accumulation FIAs on downside protection and incremental returns. The resulting case study outlines how these FIAs can help financial advisors build portfolios with better overall outcomes — as well as highlighting key trade-offs around funding options that advisors should consider.

Anne Ackerley  
Head of BlackRock's Retirement Group

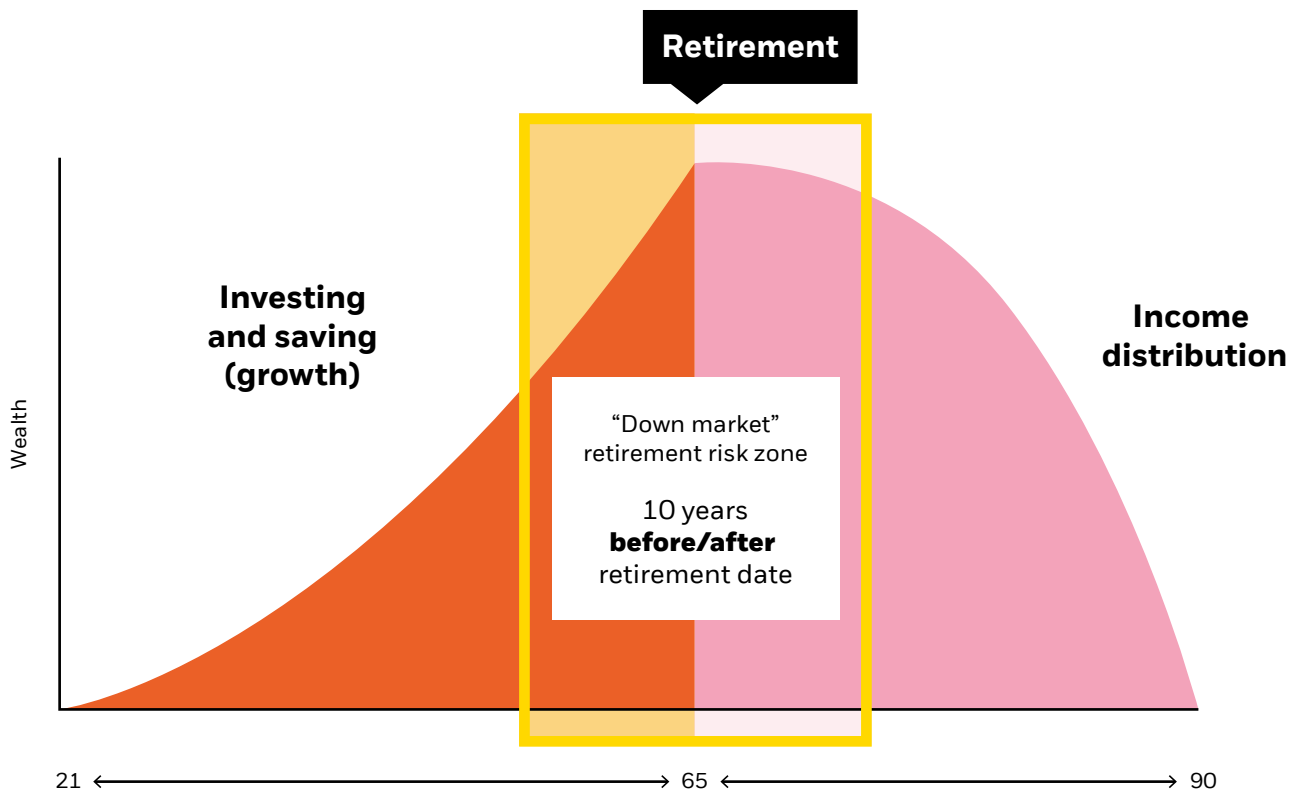
<sup>2</sup> National Institute on Retirement Security, "Retirement Insecurity 2021: Americans' views of retirement," Feb. 2021. <sup>3</sup> Boston College Center for Retirement Research, "The National Retirement Risk Index: An Update from the 2019 Survey of Consumer Finances," Jan. 2021. <sup>4</sup> Economic Policy Institute, "Unemployment Claims Increase as COVID-19 Surges," Jan. 2021. <sup>5</sup> See Table 1. <sup>6</sup> National Institute on Retirement Security, "Retirement Insecurity 2021: Americans' views of retirement," Feb. 2021.

# Retirement red zone and sequence-of-return risk

One of the key issues facing retirement savings is sequence-of-return risk.<sup>7</sup> The most critical period for mitigating this risk is in the few years leading up to, and the first few years during, an individual's retirement – the “retirement red zone.”

If a high proportion of negative returns occurs during this period, it can have a long-lasting, materially negative effect on the rest of the individual's retirement years – potentially reducing the income an investor can withdraw over their lifetime.

While a negative sequence of returns compounded by ongoing withdrawals can quickly deplete a portfolio, a positive sequence of returns can quickly propel the portfolio ahead, potentially creating substantial excess accumulation. From an investor's perspective, an ideal portfolio would be one that mitigates the negative sequence of returns, while capturing any positive sequence of returns the market has in store. Our research suggests that incorporating an FIA can allow for consistent equity exposure in this “retirement red zone” to help capture upside potential while also mitigating downside sequence-of-return risk.



For illustrative purposes only. Source: Beware of the retirement risk zone, May 2019.

<sup>7</sup> Sequence of returns, Sept. 2019.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

4 **Retiring with confidence:** A case for fixed indexed annuities in accumulation

# How accumulation FIAs work

In a single-premium fixed indexed annuity (FIA), the customer turns over a fixed amount of savings to an insurance company on day one and allocates to a variety of tax-deferred accumulation options for the life of the product.

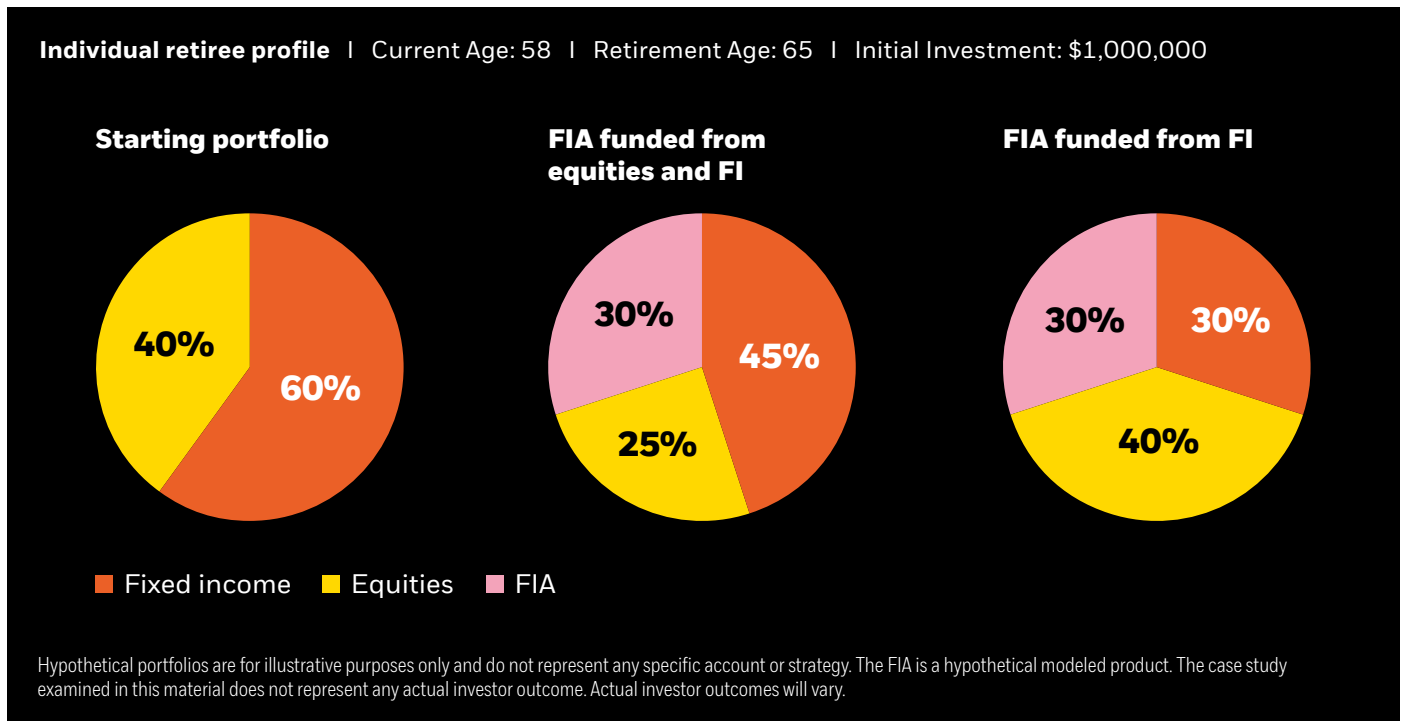
The accumulation options are based on the performance of a selected underlying market index (most often the S&P 500 Price Return Index [SPX], another broad market benchmark or a custom multi-asset index). Asset growth is based on a “crediting strategy” linked to the benchmark index. At maturity, investors can expect to receive their principal plus any potential gains, while being fully protected from any losses (the worst-case scenario, subject to issuer credit risk, is receiving principal back without any gains).

*Note that there are surrender schedules that penalize access to the money during the accumulation period, typically ranging from five to 10 years. Often, partial withdrawal of 10% per annum is available penalty-free.*

The two most popular crediting strategies are based on index caps and participation rates.

- An index cap is the maximum interest that will be credited to the account in a chosen period (e.g., a 4% annual cap implies that the client’s maximum return during the period is 4% annually, even if the underlying index exceeds that threshold).
- A participation rate is the percent of an index gain that accrues to a client (e.g., 50% of index returns means the customer accrues half the index returns, with no cap). The rates vary depending on the underlying index, interest rates and market volatility, among other factors.

## Retirement case study



In this case study, we look at a hypothetical 58-year-old investor who is planning to retire at age 65. We consider two alternatives for the investor:

- Investing in a standard balanced portfolio (i.e., a typical combination of cash, fixed income and equities, but **no FIA**) for a chosen risk level. We assume the investor’s risk level has been determined in consultation with a financial professional.
- Allocating a portion of the capital in an FIA (i.e., the portfolio is now a combination of cash, fixed income, equities and an **FIA**). The allocation to the annuity is funded in two ways:
  - A “prorated” allocation out of the portfolio of stocks and bonds
  - A “fixed income (FI)” funded allocation
- Both portfolios are compared after seven years, when the investor is ready to retire.

We then estimate which of these portfolio allocation options offers the investor a better chance of satisfying their goals: **increasing asset growth potential while managing risk to their unique needs.**

This analysis excludes the impact of fees (advisory and fund management). Additionally, a 40/60 equities/FI portfolio is used in further analysis as we view this as the benchmark retirement portfolio.

We use BlackRock’s capital market assumptions (CMAs) for all assets and the underlying index allocation inside the modeled FIA. Capital market assumptions (as of 11/25/20) are shown in Table 1. Table 2 shows the FIA specifications.

Both alternatives are analyzed by using a Monte Carlo simulation engine. Portfolio and FIA characteristics are modeled using returns for the underlying asset class proxies (CMAs in Table 1), sampled out of a correlated joint normal distribution of returns. We simulate 5,000 future return paths for all the assets under consideration. Along each of the simulated paths, we account for the impact of the structure of the FIA — floor and cap (or participation rate) — and propagate the account value of the whole portfolio through time. At the end of the seven-year period we compare the two portfolios and their distribution statistics.

**Table 1: BlackRock 10-year capital market assumptions as of 11/25/20**

Asset class	Reference index	Expected return	Expected risk
Cash	Citigroup	1.0%	0.0%
	3-Month Treasury Bill Index		
US Agg Bond	Bloomberg	0.8%	4.2%
	Barclays U.S. Aggregate Index		
US Large Cap	MSCI USA Index	5.0%	16.2%

Return assumptions are total nominal returns. U.S. dollar return expectations for all asset classes are shown in unhedged terms. Our CMAs generate market, or beta, geometric return expectations. Asset return expectations are gross of fees. “Expected” return estimates are subject to uncertainty and error. Expected returns for each asset class can be conditional on economic scenarios; in the event a particular scenario comes to pass, actual returns could be significantly higher or lower than forecasted. The individual asset class assumptions are not a promise of future performance. Indexes are unmanaged, used for illustrative purposes only and are not intended to be indicative of any fund’s performance. It is not possible to invest directly in an index. Note that these asset class assumptions are passive and do not consider the impact of active management.

**Table 2: FIA specifications\***

Floor	0.0%
Cap	3.5%
FIA index return	3.1%
FIA index risk	14.9%

\*Non-volatility-controlled U.S. Equity Index. The FIA is a hypothetical modeled product. The FIA specifications do not include all assumptions that may have been applied to a particular model, and the models themselves do not reflect every factor that can have a significant impact on portfolio outcomes. Any changes to the model assumptions would affect the results shown in this material. Chosen parameters represent our conservative estimate of products available in the market as of the published date.

## Main findings:

### 1 FIA allocation offers greater upside in the “median” scenario when suitably funded

We start by looking at the median portfolio balance (50<sup>th</sup> percentile of outcomes after seven years) for a portfolio with and without the FIA allocation.

The orange bars in Figure 1 show the change in the median value of the portfolio at retirement (compared to the base case, or 0% allocation to FIA) when allocating different percentages to an FIA from a 40/60 (Eq/FI) portfolio, with the FIA allocation being FI funded (i.e., funded by the fixed income portion of the portfolio).

With a 30% allocation to the FIA, **the median value increased by about 2%** over the base case (portfolio with 0% FIA allocation). In dollar terms, this translates to roughly a \$20K increase in value for a \$1M initial investment portfolio.

The yellow bars in Figure 1 show the change in the median value of the portfolio at retirement for increasing allocations to the FIA in a 40/60 (Eq/FI) portfolio, with the FIA allocation funded on a *prorated basis* (i.e., selling a slice of the whole portfolio and using the proceeds to purchase the FIA).

**A 30% allocation to the FIA leads to a 0.5% decrease in the 50<sup>th</sup> percentile value compared to the base case of**

**no FIA allocation.** In dollar terms, this translates to about a \$7K decrease on a \$1M initial investment.

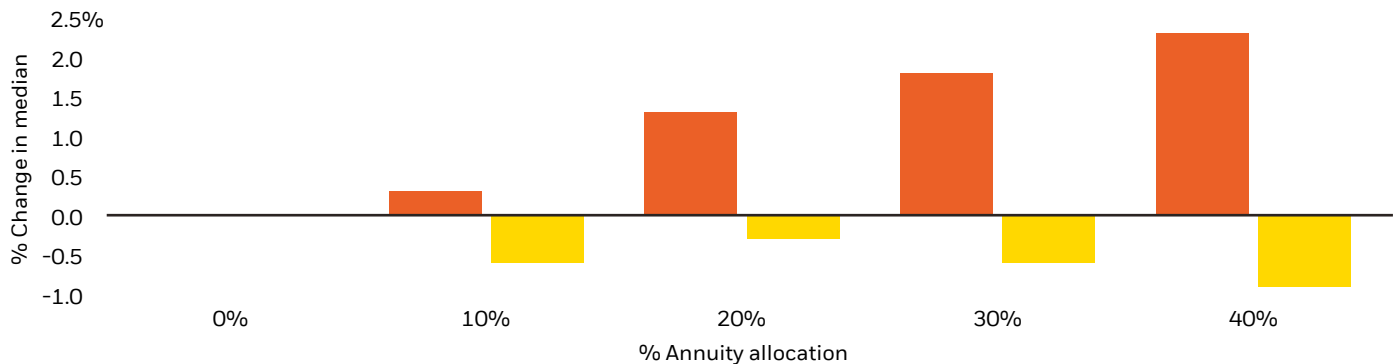
We would expect to see an increase in the fixed income funded case vs. the decrease in the prorated funded case given that the latter ends up substituting a portion of the higher expected return assets in the portfolio (i.e., equities) with a lower median expected return asset (the FIA). In the case of funding from fixed income, the portfolio’s overall return is enhanced because a lower expected return asset is being substituted for a higher expected return asset (the FIA is a wrapper which enables equity exposure, but with principal protection).

#### Key takeaways for financial professionals:

For a “balanced” portfolio, our analysis indicates that:

- An allocation to an FIA leads to **increased** median accumulation value when it is **funded out of the fixed income** sleeve.
- An allocation to an FIA may lead to marginally **decreased** median accumulation value when **funded out of the portfolio in a prorated fashion.**

**Figure 1: Impact of annuity allocation on median portfolio value (starting portfolio: 40/60 Eq/FI)**



● Eq/FI, allocation to annuity out of fixed income    ● Allocation to annuity prorated out of total portfolio

For illustrative purposes only. The portfolio values shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

## 2 FIA allocation reduces extreme bad outcomes in balanced portfolios

Next, we look at the portfolio downside experience when incorporating a product that offers principal protection.

The orange bars in Figure 2 look at the lower bound, or the fifth percentile of possible outcomes, after seven years. Compared to the base case of 0% FIA allocation, **the lower bound increases by 6% for a 30% allocation to the FIA on a prorated basis.** In dollar terms, this is an extra \$53K cushion on a \$1M initial investment.

The yellow bars in Figure 2 look at the same metric, but when the FIA allocation is FI funded. **The increase in the lower bound is smaller – about 0.5% for a 30% allocation to the FIA – due to the FIA substituting only the fixed income allocation.**

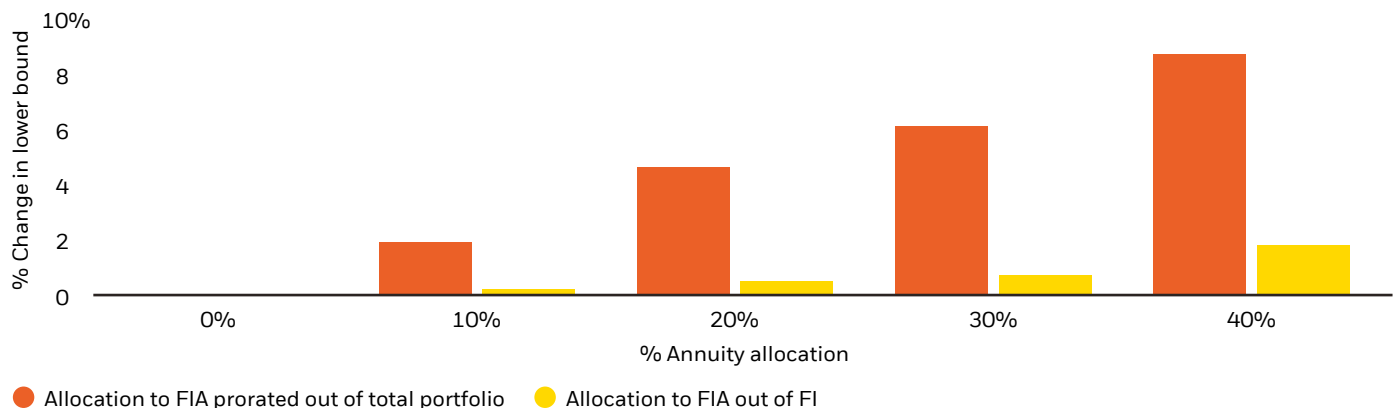
The FIA's impact on extreme negative outcomes for this case is muted because the fixed income asset class already has low volatility (it also has very low expected returns, at 0.8%). Though muted, the FIA still has a positive impact on the lower bound of portfolio value (in dollar terms it is roughly a \$5K cushion on a \$1M portfolio).

Another way of looking at the impact of an FIA allocation on extreme bad outcomes is analyzing the probability of the portfolio's asset value falling below a chosen level. Many investors can identify an asset level that they want to ensure their portfolio does not breach – such as the minimum amount they believe can provide for their essential spending in retirement.

For a \$1M starting investment, we assume that the investor does not want the portfolio's asset level to fall below \$900K. Figure 3 shows the assets' fifth percentile level on the cumulative distribution function for a portfolio without an FIA (orange line), alongside a portfolio with a 30% allocation to an FIA funded in a prorated manner (yellow line).

Figure 4 shows a zoomed view of the left tail showing the overall reduction in tail risk due to an FIA allocation funded in a prorated manner (yellow line). By allocating 30% of the portfolio to the FIA, sourced in a prorated manner, the probability of breaching this barrier drops to 2%. **That's a 60% reduction in the probability of falling below \$900K – a significant reduction in the likelihood of an extreme tail event.**

**Figure 2: Impact of FIA allocation on portfolio lower bound (starting portfolio: 40/60, allocation to FIA prorated out of total portfolio)**



For illustrative purposes only. The portfolio lower bounds shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

8 **Retiring with confidence:** A case for fixed indexed annuities in accumulation



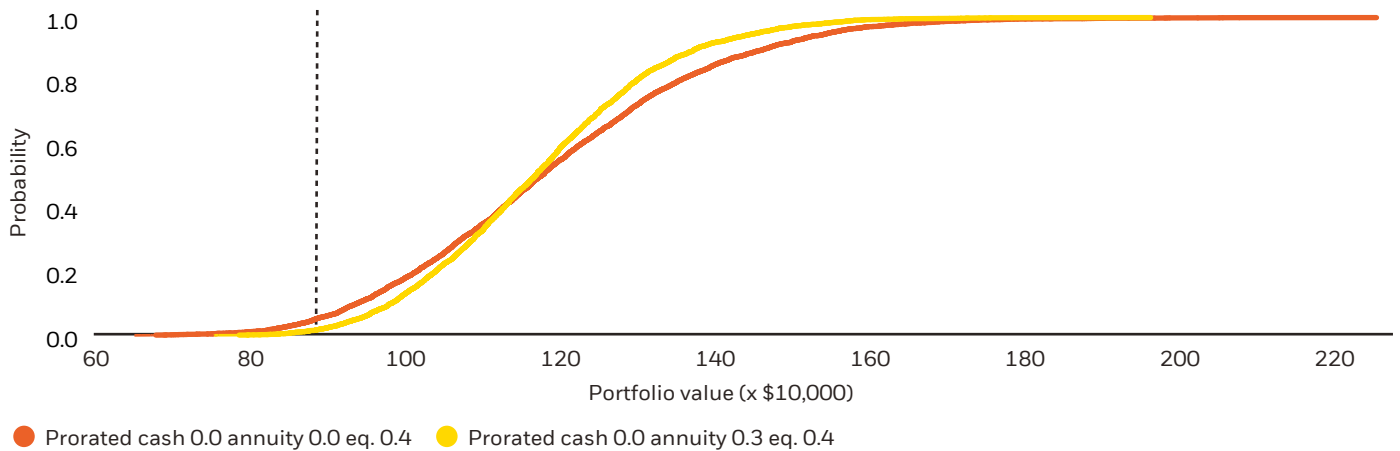
If the allocation is *fixed income funded*, that same probability becomes 4%, **which is a 20% reduction in the probability of an extreme tail event.**

Thus, **irrespective of the funding source, inclusion of the FIA substantially decreases the probability of asset values falling below a chosen level.**

### FIA as a safety asset

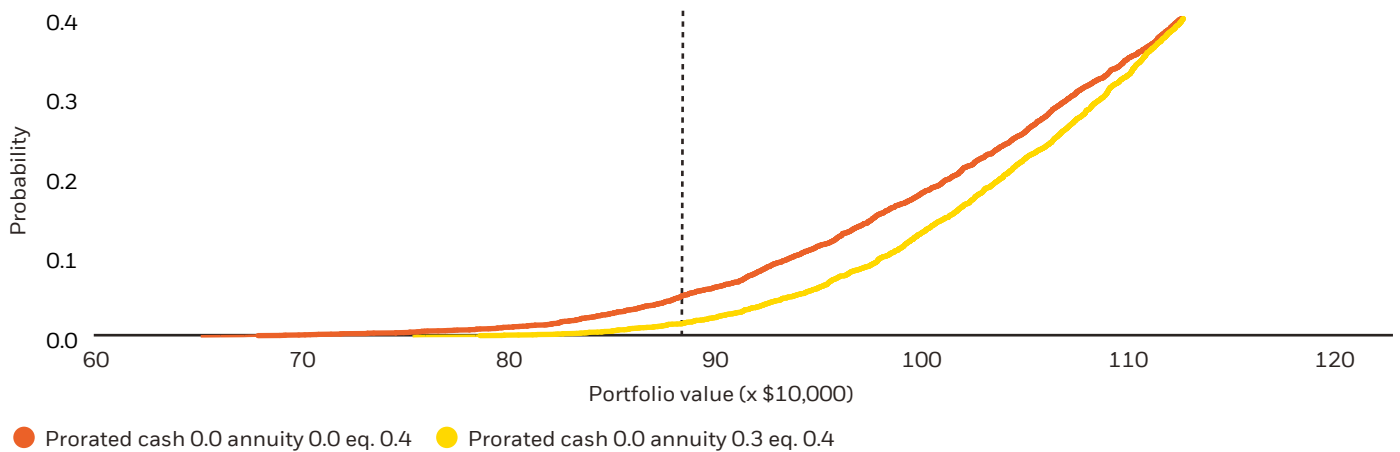
The traditional way of positioning an FIA is to provide a potential cushion for portfolio returns during continued adverse market conditions. Below, we go through a hypothetical exercise to clearly articulate the **benefits and drawbacks** of using an FIA as a safety asset. We do this by assuming fixed hypothetical market returns each year for the next seven years.

**Figure 3: Cumulative distribution function of portfolio value showing 5<sup>th</sup> percentile value**



For illustrative purposes only. The probabilities shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

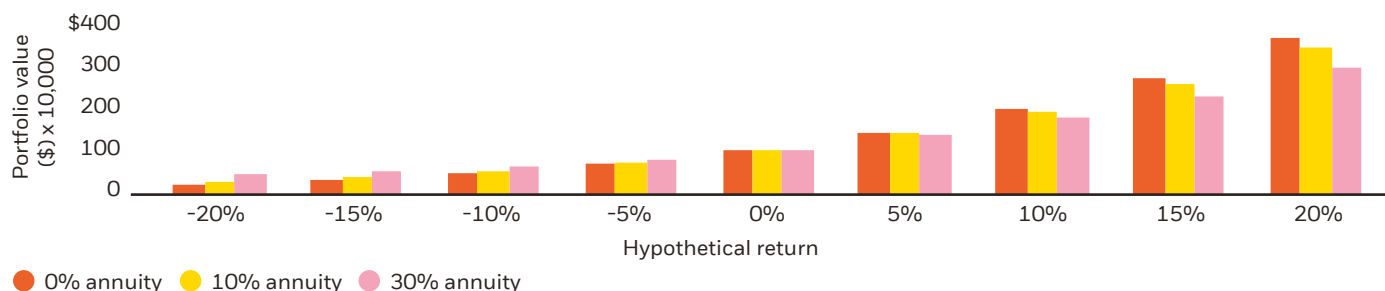
**Figure 4: Cumulative distribution function of portfolio value showing 5<sup>th</sup> percentile value (zoomed in view of left tail)**



For illustrative purposes only. The probabilities shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

**Figure 5: Impact of FIA in hypothetical market conditions**



For illustrative purposes only. The portfolio values shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

Figure 5 shows the portfolio value at the end of seven years for three different FIA allocations (0%, 10% and 30% FIA). The 0% FIA allocation represents a portfolio with no additional protection.

**Doomsday equity market scenario**

The columns on the far left show the case of the invested portfolio losing 20% each year for the next seven years (a hypothetical “doomsday” scenario). A portfolio with no FIA allocation ends up at about \$200K for an initial \$1M investment, while a portfolio with 30% allocation to the FIA ends up at around \$450K — **saving 45% of the portfolio value even in such adverse market conditions.**

**Consistently negative equity market scenario**

Now, consider a more realistic scenario, in which the investment portfolio experiences a -5% return each year for the next seven years. A 30% allocation to the FIA significantly reduces the decrease in overall portfolio value (ending value at \$790K) when compared to the base case of no FIA allocation (ending value at \$700K) — **a 13% improvement.** For an investor in the “retirement red zone,” these additional assets can make a material positive impact.

**Positive equity market scenario and potential trade-offs of an FIA allocation**

To understand the potential drawbacks of an FIA allocation, we look at positive market performance. Starting with the extreme case of +20% return on the investment portfolio every year for the next seven years, a portfolio with a 30% allocation to the FIA **underperforms the FIA-free portfolio by about 20%** (\$2.9M vs. \$3.6M at the end of seven years). Simply put, the potential trade-off for the investor is giving up some positive performance during up markets in order to secure a “floor” during down markets.

In a more muted consistently positive market scenario (investment portfolio returning 5% every year for the next seven years), the result is a portfolio balance of \$1.4M for the FIA-free portfolio vs. \$1.36M for a portfolio with a 30% FIA allocation — a \$40K difference, or a **3% underperformance.** Giving up 3% of potential positive returns could be viewed as a reasonable potential trade-off for the 13% improvement in downside protection.

In summary, for more typical/muted equity market scenarios, an investor can secure substantial protection in down markets through the inclusion of an FIA, while giving up limited upside — thus enabling the FIA to play an important role as a risk mitigation asset in the portfolio.

**Key takeaways for financial professionals:**

- Inclusion of an FIA reduces extreme bad outcomes in balanced portfolios irrespective of funding source, thus acting as a natural risk mitigation asset.
- If the investor’s primary focus is to significantly reduce extremely bad outcomes, it is reasonable to allocate to the FIA in a prorated fashion from stocks and bonds.
  - However, by doing so the investor gives up some upside.
- An FIA also reduces extreme bad portfolio outcomes if funded from fixed income.
  - This reduction is relatively smaller.
  - It also comes with a significant increase of expected upside capture.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

### 3 For conservative and cash-heavy portfolios, FIAs improve worst and median outcomes

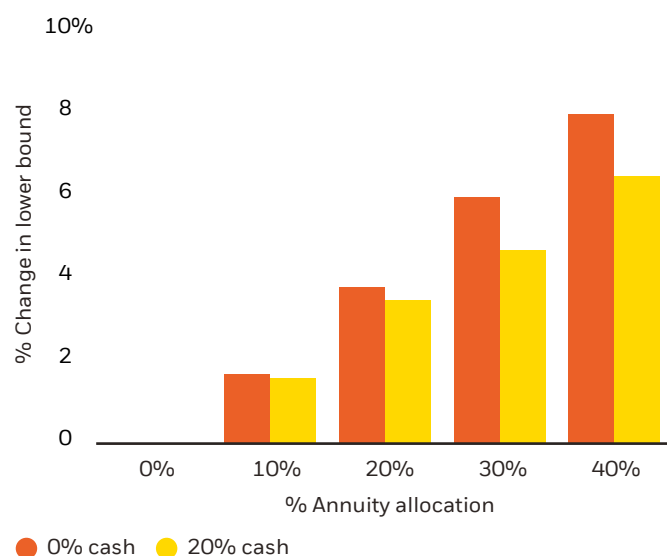
Next, we look at the impact of the FIA on a conservative portfolio – one which is predominantly invested in fixed income and cash. We consider two cases:

- A conservative portfolio with no cash (10% Eq, 90% FI)
- A portfolio with 20% cash (10% Eq, 20% cash, 70% FI)

Conservative investors are generally motivated by capital preservation. Their primary interests typically are protecting their nest egg and ensuring better median outcomes. They are not as focused on extreme positive market performance. Figure 6 and Figure 7 compare the impact on the fifth and 50<sup>th</sup> percentile portfolio values when the FIA allocation is funded on a prorated basis for the above two cases.

Allocating to an FIA on a prorated basis **improves both the extreme negative outcomes and median performance of the portfolio**. The improvements in

**Figure 6: Impact of annuity allocation on portfolio lower bound (10% equities, prorated)**

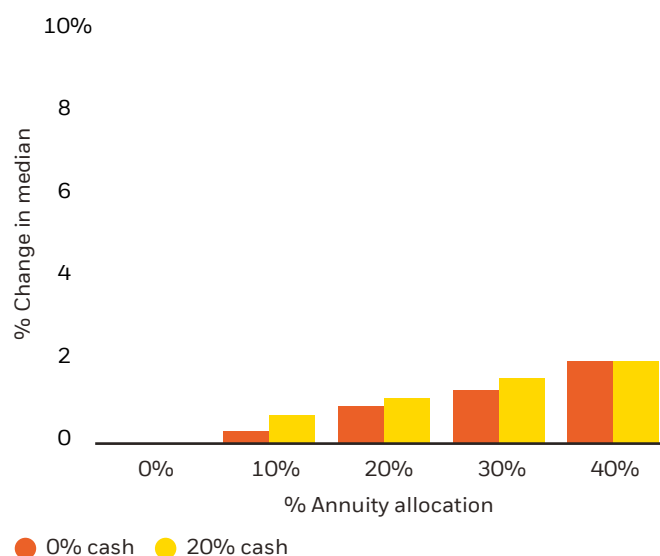


negative outcomes are greater for the 0% cash portfolio than the 20% cash portfolio, which is understandable because the cash allocation already provides good downside protection with no volatility.

The key potential trade-off to consider is an extreme unexpected liquidity need. Cash and cash equivalent investments in a portfolio play a critical role in providing for investors’ liquidity needs. However, it is also common to see investors hold more cash than is necessary due to fear of loss in the capital markets. After meeting an investor’s liquidity needs, accumulation FIAs offer a good option for addressing the fear of loss through the downside protection mechanism, while allowing for upside participation.

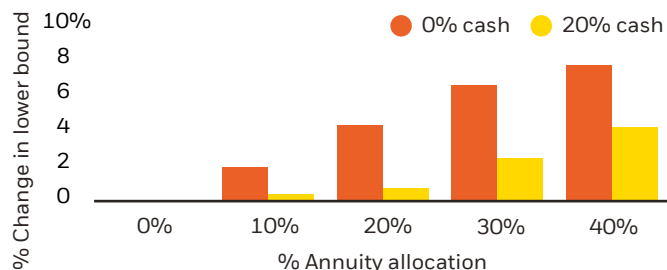
Figure 8 and Figure 9 show the changes in the lower bound and median value in the case of the FIA being funded from the cash and fixed income sleeves only (first cash and then fixed income, leaving equity exposure untouched).

**Figure 7: Impact of annuity allocation on median portfolio value (10% equities, prorated)**

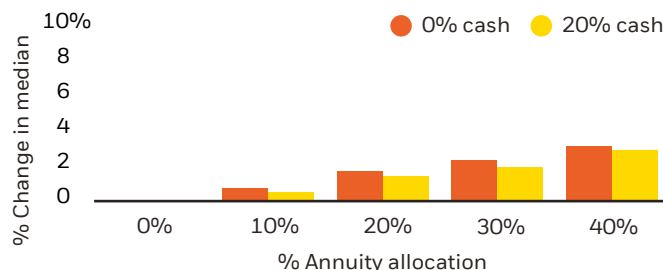


For illustrative purposes only. The portfolio lower bounds shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

**Figure 8: Impact of annuity allocation on portfolio lower bound (10% equities, Fixed Income funded from 0% cash vs. 20% cash)**



**Figure 9: Impact of annuity allocation on median portfolio value (10% equities, Fixed Income funded from 0% cash vs. 20% cash)**



For illustrative purposes only. The portfolio lower bounds shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

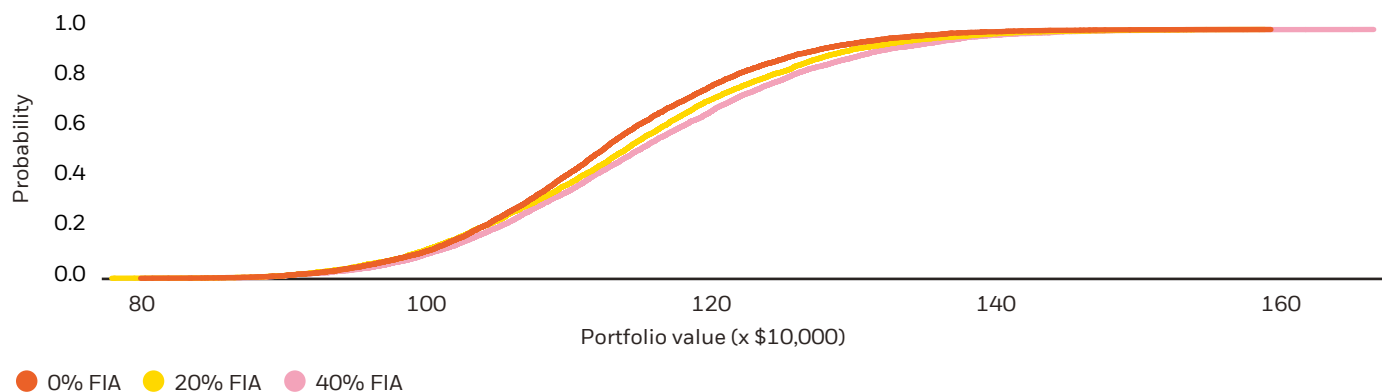
Figure 10 provides another way to illustrate the overall impact on portfolio outcomes when replacing cash and FI assets with an FIA. The chart shows a right shift in the distribution of outcomes for the overall portfolio, which potentially means an improvement on the portfolio as a whole: **better downside protection, as well as better median portfolio performance.**

In summary, an FIA allocation can effectively complement a conservative portfolio because **it retains its ability to guard against negative outcomes, while providing a sizeable increase in potential upside capture.** If managed appropriately alongside liquidity needs, this use case offers a strong value proposition.

**Key takeaways for financial professionals:**

- Cash (and cash-alternative) allocations in a portfolio play an important role in protecting the overall investment. Financial professionals and clients should decide on an appropriate allocation to account for liquidity and short-term spending needs.
- Cash also provides valuable protection to the portfolio by not forcing the investor to sell out of risky growth assets at the worst possible time.
- Our analysis indicates that for conservative and cash-heavy portfolios, after accounting for liquidity needs, an FIA improves worst and median case total portfolio outcomes.

**Figure 10: Distribution of portfolio outcomes shifts to the right with FIA allocation in conservative portfolios**



For illustrative purposes only. The probabilities shown are hypothetical estimates generated using Monte Carlo simulation, which is a statistical modeling technique that forecasts a set of potential future outcomes based on the variability or randomness associated with historical occurrences. The projections are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. No representation is made that an investor will achieve results similar to those shown. Actual results could be higher or lower based upon a number of factors and circumstances not addressed herein.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

## 4 An FIA with an underlying volatility-controlled index helps investors gain more confidence on future portfolio values

In the above sections, we looked at an FIA with a crediting strategy linked to the S&P 500 Price Return Index (SPX).

We now analyze the impact on the overall portfolio when investing in an FIA with accumulation that is linked to a “volatility-controlled” index.

### Volatility-controlled index with a cap rate

First, we examine the impact of the volatility control feature on portfolio outcomes. Figure 11 shows a simple comparison between a portfolio with an allocation to an FIA linked to SPX with a cap rate vs. one with an allocation to an FIA linked to a volatility-controlled index with a cap rate.

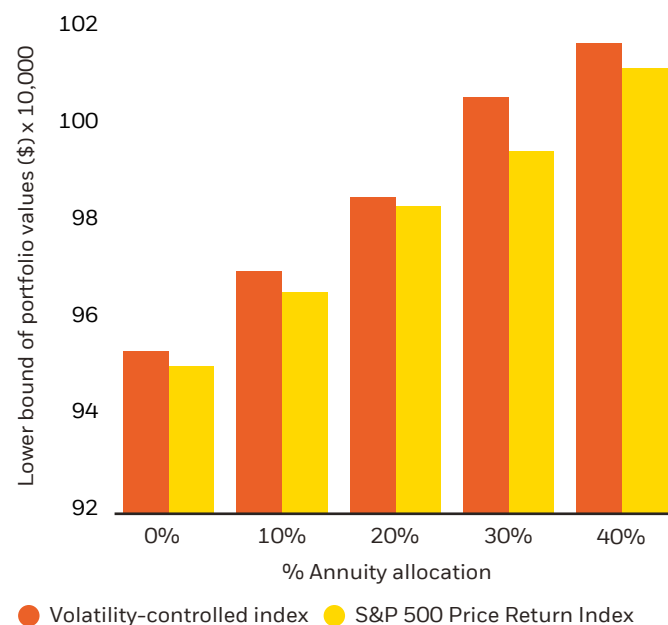
We find that the volatility-controlled index is able to “drag” the lower bound of the whole portfolio more aggressively to the right. One reason for this outcome is that the volatility-controlled index’s return distribution is much narrower and provides more positive outcomes between the floor and the cap. This performance should give investors greater confidence around their future asset value.

### How volatility-controlled indexes work

Volatility-controlled indexes are typically constructed with a combination of strategic and tactical asset allocation mechanisms built into the methodology. The goal of a volatility-controlled index is to deliver a stable realized volatility. This profile enables insurers to manage their risk while offering a more consistent accumulation experience to the client over the life of the annuity. When market volatility is low, this feature is relatively less important because a non-volatility-controlled index can deliver similar consistency. However, during higher-volatility environments, this feature becomes particularly attractive.

Caps and participation rates in FIAs linked to a non-volatility-controlled index can change quite materially on an annual basis. While cap and participation rates on volatility-controlled indices can also fluctuate, these changes typically would be driven by reasons other than capital market dynamics.

**Figure 11: Volatility-controlled index vs. S&P 500 Price Return Index. Impact on lower bound (20% cash, 10% equities). Prorated allocation with both indexes subject to 3.5% cap**



### Volatility-controlled index with participation rate

For our next example, we choose a typical market construct: an FIA with no cap on the benchmark index returns, but with a participation rate that allows investors to capture a percentage of the index returns. Table 3 shows the specifications.

**Table 3: FIA specifications with a volatility-controlled index\***

<b>Floor</b>	0.0%
<b>Cap</b>	N/A
<b>FIA index exp. return</b>	3.25%
<b>FIA index risk</b>	5.0%
<b>Participation rate</b>	80%

\*The FIA is a hypothetical modeled product. The FIA specifications do not include all assumptions that may have been applied to a particular model, and the models themselves do not reflect every factor that can have a significant impact on portfolio outcomes.

Any changes to the model assumptions would affect the results shown in this material. Chosen parameters represent our conservative estimate of products available in the market as of the published date.

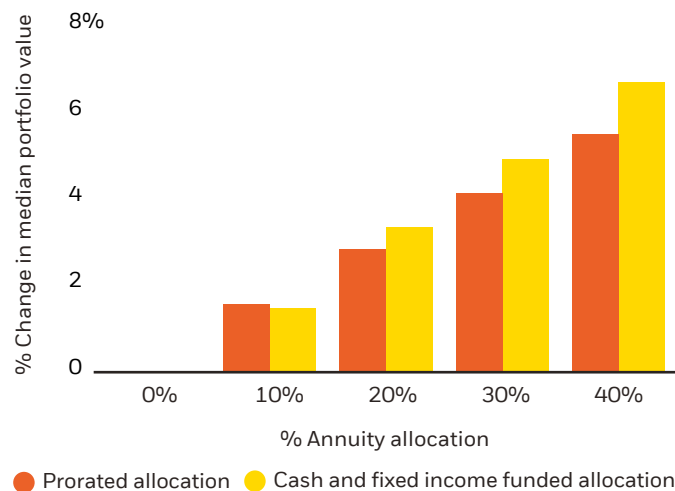
Figure 12 shows the improvement in median portfolio value with increasing allocations to the FIA when allocations are prorated or funded from cash and fixed income. For a 30% allocation to a volatility-controlled index FIA, we see a 4% improvement in the prorated case and 5% improvement in the cash and fixed income funded case.

Figure 13 shows the improvement in the upper bound of portfolio values for the same two cases. Here, we see that the FIA offers greater upside participation due to the absence of the cap. **For a 30% allocation to the FIA, the improvements are 2.5% in the prorated case and 5.5% in the cash and fixed income funded case, respectively.**

One might expect that removing the cap on upside participation would allow investors to benefit more from extreme positive market performances. However, because the volatility-controlled index has a lower target volatility (5%; see Table 3) compared to the expected volatility of the S&P Price Return Index (14.9%; see Table 2), investors should expect such extreme positive events to be less frequent due to the inherent volatility control built into the index.

An FIA with a volatility-controlled index can be thought of as an asset that provides a slightly lower expected return relative to SPX, but with a tighter expected distribution of returns. Additionally, crediting strategies without a cap allow for upside participation in extreme events, although the expectation for upside events is limited by both the participation rate (if less than 100%) as well as the tighter expected volatility range.

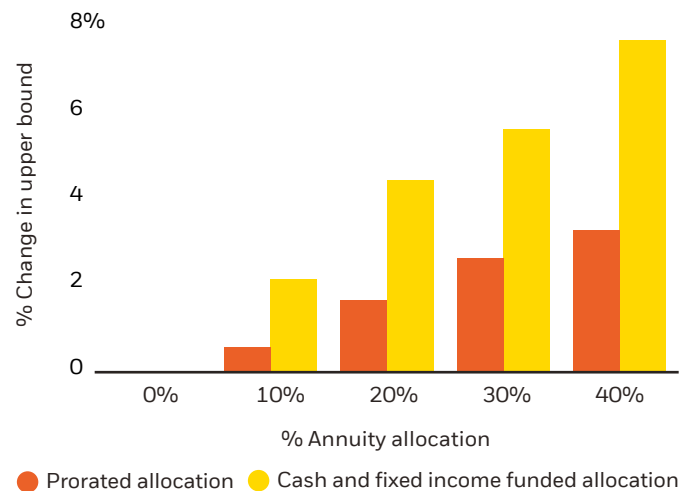
**Figure 12: Impact of FIA allocation on median portfolio values (starting portfolio 20% cash, 10% equities, 70% fixed income). Prorated allocation and cash and fixed income funded allocation**



**Key takeaways for financial professionals:**

- Using a volatility-controlled index as an FIA benchmark can improve the lower bound of portfolio outcomes.
- Using a volatility-controlled index without a cap but with a participation rate less than 100% allows for participation in extreme positive market moves, even though investors should expect a low frequency of such extreme positive events due to the index’s built-in volatility control.
- FIAs benchmarked to volatility-controlled indexes typically offer a narrow distribution of returns, but with a lower expected return, which results in the investor trading off extreme positive outcomes for more certainty about the return profile.
- Choosing between FIA options — such as with or without volatility control and cap vs. participation rate — is an active discussion between the advisor and investor. These conversations should consider product design, index design, current cap and participation rates, median outcome expectations and desired confidence around target outcomes.

**Figure 13: Impact of FIA allocation on upper bound of portfolio values (starting portfolio 20% cash, 10% equities, 70% fixed income). Prorated allocation and cash and fixed income funded allocation**



FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

# Conclusion

Accumulation FIAs can play an important role in helping clients achieve their goal of retiring with confidence.

Retirement portfolios designed for investors in the “retirement red zone” are necessarily de-risked. We support this conventional wisdom. However, given the challenging forward-looking return expectations for equities, and low bond yields, it is important to consider complementary product options that can preserve the desired characteristics of retirement portfolios. FIAs may be a good candidate to help investors with protected growth leading up to retirement.

FIAs have evolved considerably in the past few years. Financial professionals now have flexible options to choose from, making it possible to find an appropriate product to serve the desired purpose of providing adequate downside protection along with sensible participation in market upside. Financial professionals should discuss these options with their clients in the context of their desired future asset goals for the whole portfolio and appropriate risk (or confidence level) of reaching those goals.

As with every product option, investors must consider trade-offs before making a decision. FIAs are typically subject to strict contractual constraints during the investment period (such as a minimum investment period), which can result in significant penalties if funds are withdrawn early. It is important for financial professionals to discuss these considerations with their clients.

Yet in this case study, we have shown that after addressing all of these concerns for the investor, an FIA acts as a risk mitigation asset while enabling participation in positive market performance.

**We would like to thank Jieyu Li and Chris Coyne for their contributions to bringing this project to life. Additionally we would like to thank Sara Shores, Greg Shade, Michael Pensky, Matt Soifer, Melissa Buccilli, Risa Sistos and Andrew Stolowitz for their review and insights.**

# Important notes

THE INFORMATION CONTAINED HEREIN MAY BE PROPRIETARY IN NATURE AND HAS BEEN PROVIDED TO YOU ON A CONFIDENTIAL BASIS, AND MAY NOT BE REPRODUCED, COPIED OR DISTRIBUTED WITHOUT THE PRIOR CONSENT OF BLACKROCK, INC. (“BLACKROCK”). These materials are not an advertisement and are not intended for public use or dissemination.

This material is provided for informational purposes only and does not constitute a solicitation in any jurisdiction in which such solicitation is unlawful or to any person to whom it is unlawful. Moreover, it neither constitutes an offer to enter into an investment agreement with the recipient of this document nor an invitation to respond to it by making an offer to enter into an investment agreement.

This material is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. As of 8/19/2021, these opinions expressed are as of 11/25/2020 and may change as subsequent conditions vary. The information and opinions contained in this material are derived from proprietary and nonproprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy. Reliance upon information in this material is at the sole discretion of the reader.

The information contained in this presentation is proprietary and confidential and may contain commercial or financial information, trade secrets and/or intellectual property of BlackRock. If this information is provided to an entity or agency that has, or is subject to, open records, open meetings, “freedom of information”, “sunshine” laws, rules, regulations or policies or similar or related laws, rules, regulations or policies that require, do or may permit disclosure of any portion of this information to any other person or entity to which it was provided by BlackRock (collectively, “Disclosure Laws”), BlackRock hereby asserts any and all available exemption, exception, procedures, rights to prior consultation or other protection from disclosure which may be available to it under applicable Disclosure Laws.

Opinions and estimates offered herein constitute the judgment of BlackRock and are subject to change. All opinions and estimates are based on assumptions, all of which are difficult to predict and many of which are beyond the control of BlackRock. In addition, any calculations used to generate the estimates were not prepared with a view towards public disclosure or compliance with any published guidelines.

This material may contain “forward-looking” information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of yields or returns, and proposed or expected portfolio composition. No representation is made that the performance presented will be achieved by any product or strategy, or that every assumption made in achieving, calculating or presenting either the forward-looking information or the historical performance information herein has been considered or stated in preparing this material. Any changes to assumptions that may have been made in preparing this material could have a material impact on the investment returns that are presented herein by way of example.

Past performance information indicated herein is neither a guarantee nor indicative of the future performance or investment returns of the strategy and actual events or conditions may not be consistent with, and may differ materially from, historical or forecasted events or conditions.

FOR INSTITUTIONAL AND FINANCIAL PROFESSIONAL USE ONLY

16 **Retiring with confidence:** A case for fixed indexed annuities in accumulation



There is no assurance that the strategy will achieve its investment objective or generate positive returns. Such an investment is subject to various risks, including possible loss of principal.

BlackRock does not offer insurance products or provide any financial guarantee of periodic payment.

Hypothetical performance has inherent limitations. Such results do not represent actual trading, and thus may not reflect material economic and market factors, such as liquidity constraints, that may have had an impact on our actual decision-making. No representation is made that a portfolio will achieve results similar to those shown, and performance of actual portfolios may vary significantly from the hypothetical results. No representation is made as to the accuracy or completeness of the analysis shown in this material or the validity of the underlying methodology, and results are provided for informational purposes only. The analysis should not be misinterpreted as constituting the actual performance of any portfolio or account nor should it be relied upon in connection with any investment decision relating to any product or strategy. All investments involve a risk of loss of capital, and no guarantee or representation can be made that an investment will generate profits or will avoid losses.

**BlackRock's Long-Term Capital Market Assumption Disclosures:** This information is not intended as a recommendation to invest in any particular asset class or strategy or product or as a promise of future performance. Note that these asset class assumptions are passive, and do not consider the impact of active management. All estimates in this document are in US dollar terms unless noted otherwise. Given the complex risk-reward trade-offs involved, we advise clients to rely on their own judgment as well as quantitative optimisation approaches in setting strategic allocations to all the asset classes and strategies. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. Assumptions, opinions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. If the reader chooses to rely on the information, it is at its own risk. This material has been prepared for information purposes only and is not intended to provide, and should not be relied on for, accounting, legal, or tax advice. The outputs of the assumptions are provided for illustration purposes only and are subject to significant limitations. "Expected" return estimates are subject to uncertainty and error. Expected returns for each asset class can be conditional on economic scenarios; in the event a particular scenario comes to pass, actual returns could be significantly higher or lower than forecasted. Because of the inherent limitations of all models, potential investors should not rely exclusively on the model when making an investment decision. The model cannot account for the impact that economic, market, and other factors may have on the implementation and ongoing management of an actual investment portfolio. Unlike actual portfolio outcomes, the model outcomes do not reflect actual trading, liquidity constraints, fees, expenses, taxes and other factors that could impact future returns.

**Want to know more?**

[blackrock.com](https://blackrock.com)

© 2021 BlackRock, Inc. All Rights Reserved. **BLACKROCK** is a trademark of BlackRock, Inc. or its subsidiaries. All other trademarks are the property of their respective owners.

Lit No. **FIA-21WP-0821**

217276T-0821

**BlackRock**