



FIA EDUCATION SERIES

NAFA has created this series to promote education on how FIAs work and important factors to consider when buying one.

ANNUITY CREDITING STRATEGIES:

CAP STRATEGY

APRIL 2020

LETTER FROM THE CEO

On behalf of NAFA, the National Association for Fixed Annuities, I would like to welcome you to the Fixed Indexed Annuity Education Series, designed to help consumers better understand the inner workings of fixed indexed annuity (FIA) products and to develop an awareness of how they might fit into financial and retirement plans. We hope this educational series helps demonstrate how FIAs can provide enhanced returns for consumers, while limiting downside or losses with their guaranteed minimum interest rates, a concept which becomes extremely important when planning for retirement.

Fixed indexed annuities, just like traditional fixed annuities, are insurance products that provide downside protection from loss of principal, with a guaranty that the interest earned on the annuity contract can never go below zero. In a traditional fixed annuity, the interest that the annuity can earn is locked in for a set period defined by the product and generally in annual increments. In an FIA, the return or rate is determined based on an interest crediting formula or method established by the issuing insurance company that is linked to the performance of a market index, such as the S&P 500.

This educational series will provide information on different crediting methods and product strategies that clients can utilize to help them provide for their respective financial needs and mitigate risks to their savings as well as providing a source of stable retirement income. This first report provides an analysis of one such crediting method: the point-to-point cap.

NAFA is the premier trade association exclusively dedicated to fixed annuities. We are committed to providing information and education regarding the value of fixed annuities and their benefits to our members, journalists, and the general public to help Americans plan for a lasting and safe retirement.



Charles J. DiVencenzo, Jr.
President & CEO

*The FIA Education Series
is produced on behalf
of NAFA by CANNEX
Financial Exchanges., Ltd.
CANNEX is a leading
provider of annuity pricing
and analytics.*

CANNEX
Simply reliable data

WHAT IS A CREDITING STRATEGY?

A **fixed indexed annuity (FIA)** is a type of fixed annuity that uses the performance of an index to determine the interest that gets credited. A key characteristic that makes fixed annuities attractive is that they will not lose money from market performance. An FIA is no different, even though its interest is tied to an index. Because these annuities promise that they will never lose money, the trade-off is that insurance companies must limit the upside potential. The different ways of calculating the interest based on the performance of the index are also known as **crediting strategies**.

Each crediting strategy has characteristics that affect how much the interest will be. These and other variables influence what fits the goals of the annuity buyer. Common crediting strategies include cap, participation rate, spread, monthly average, and monthly sum.

The crediting strategies can be used on a variety of different indices. Some of the indices are common ones that most people are familiar with, like the S&P 500 or the Russell 2000. Others may be less common and may be designed to have consistent returns or lower variability. No matter what, all FIAs use a crediting strategy to determine what the interest will be at the end of each crediting period.

POINT-TO-POINT CAP STRATEGY

The **point-to-point cap strategy** measures the performance of the index from one point in time to another, usually starting the day you purchase the contract until a year later and then repeating the measurement every year¹. The strategy then uses a “cap” that limits the amount of interest, no matter how well the index performs. As with all FIAs, the interest in any year cannot go below 0%, no matter how much the index loses.

A FIXED INDEXED ANNUITY (FIA) IS A TYPE OF FIXED ANNUITY THAT USES THE PERFORMANCE OF AN INDEX TO DETERMINE THE INTEREST THAT GETS CREDITED.

¹ Some strategies measure over more than one year, but we use one year for our examples because it is the most common.

INTEREST CREDITING EXAMPLES

At the end of each year, the insurance company adds credit based on the previous year's performance.

Example A

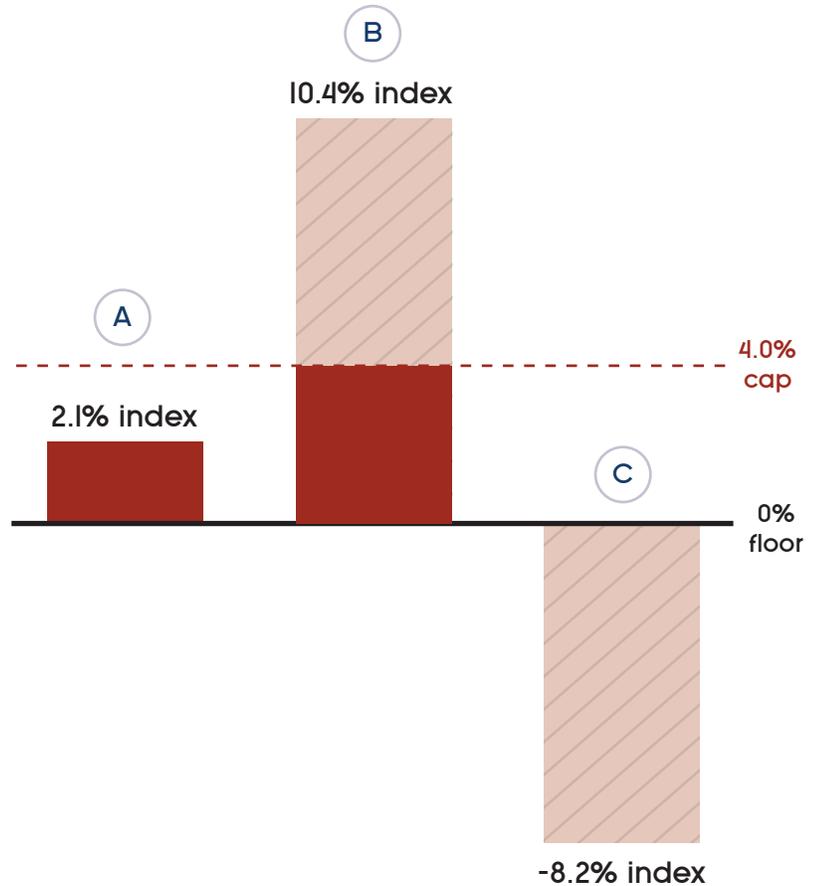
If an FIA uses a cap of 4.0% and the index goes up by only 2.1%, the credit for the year is 2.1%.

Example B

If the index goes up by 10.4%, the credit for the year is the cap, which is 4.0%.

Example C

If the index goes down by 8.2%, the credit for the year is the floor, which is 0%.



You can see from these examples that, although the index may have very large gains or losses, the FIA performance does not vary as much. **The cap limits how much credit there will be in any given year while the floor protects the investor from any losses.**

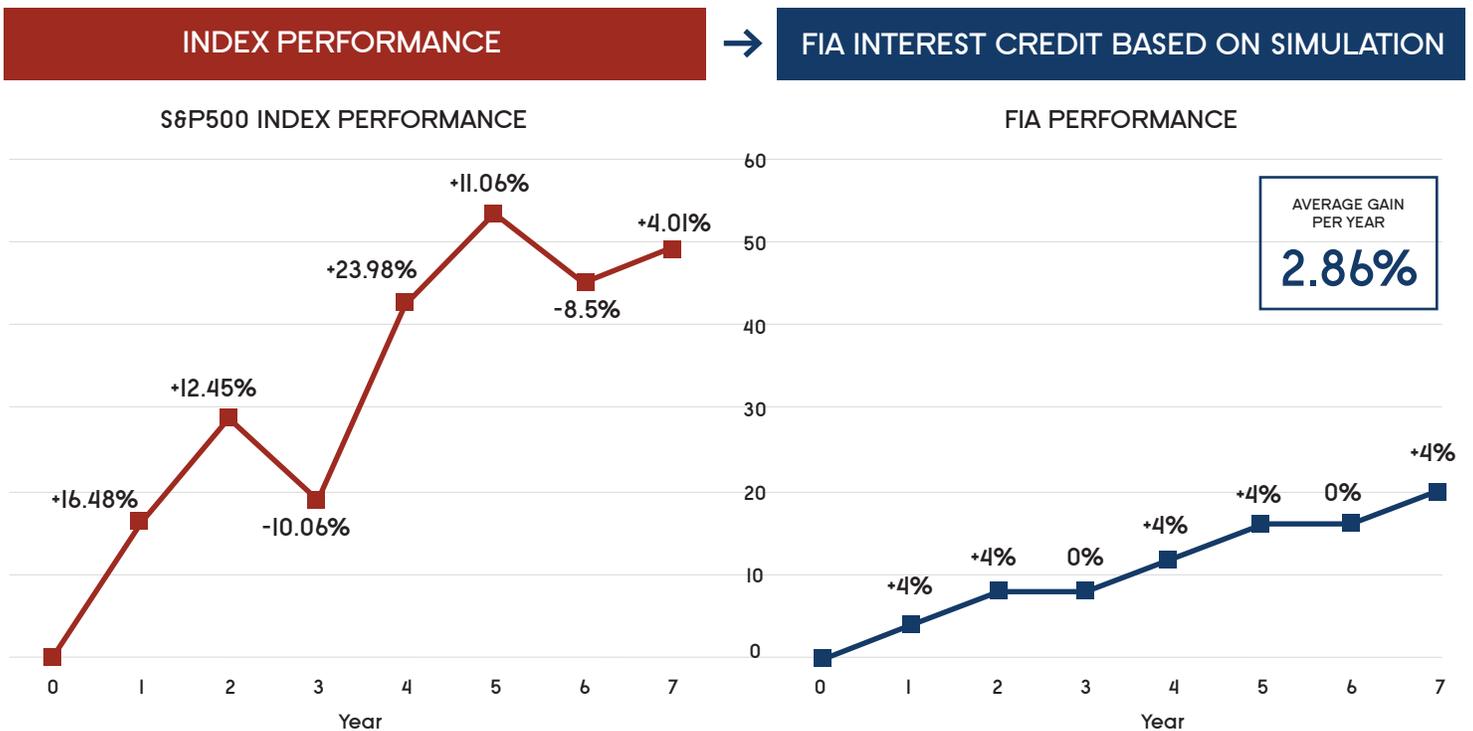
Those are the basic mechanics, but what can a buyer expect from a cap strategy? Although performance in the past does not predict what will happen in the future, we often look at historical results to get an idea of how an index has behaved in the past. We can look at a specific sequence of results to see how much interest a contract will credit along the lifetime of the contract. Here, we look at what happens over seven years because that is how long many contracts last.

THE CAP IS THE MAXIMUM CREDIT FROM AN INDEX'S GAIN.

To understand how much credit someone might get at the end of the contract, we can look at historical index performance and then use the crediting strategy to calculate the interest in each year. We repeat that for seven years. The repetition is important because it smooths out the results, balancing the effect from years with very high or very low credited interest.

TWO-STEP PROCESS

In this example, we pick the S&P 500 because it is available on all FIAs and it is one that many people are familiar with. We select a 7-year period from the index performance that has years of both gains and losses to show how the FIA credits interest.

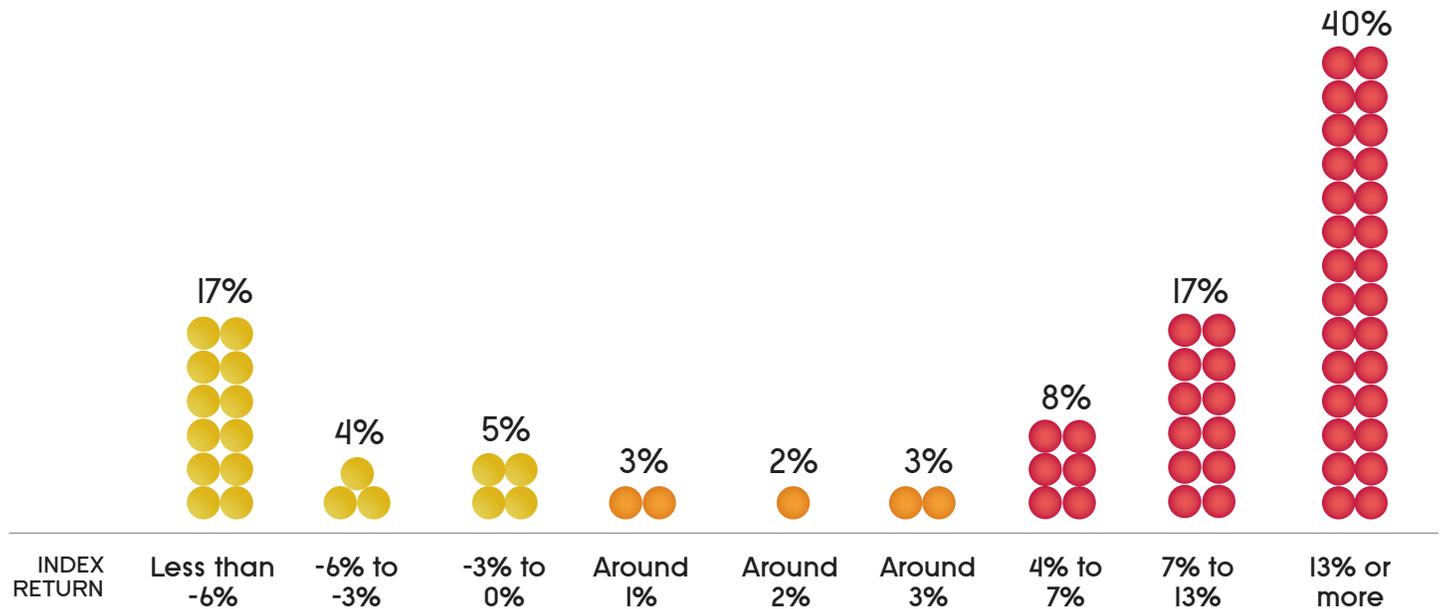


This shows us what happens based on a single sequence, but it doesn't give us a good idea about the distribution of historical results. How often did the index have losses or gains? Also, how do these results affect the credited interest from the FIA?

To understand how index performance relates to the FIA credited interest we look at **historical returns based on one-year periods starting at the beginning of every month from 1950 through the end of January 2020**. After all, people buy annuities throughout the year and results can vary significantly even from one day to the next. With so many different one-year periods, we can look at statistical information based on this history. Similar analysis can be performed on other indices as well.

Let's take a look at what happens to the index in one year based on this information. In the figure below, we stack balls based on how many times the index performance fell within a certain range in our historical analysis. All of the results that are 0% or less are yellow. The ones at the cap, 4.0% or higher, are red. And the ones in orange fall in between.

HISTORICAL ONE-YEAR INDEX PERFORMANCE (1950 - 2020)



That shows us about the index itself, but the FIA credited interest is different.

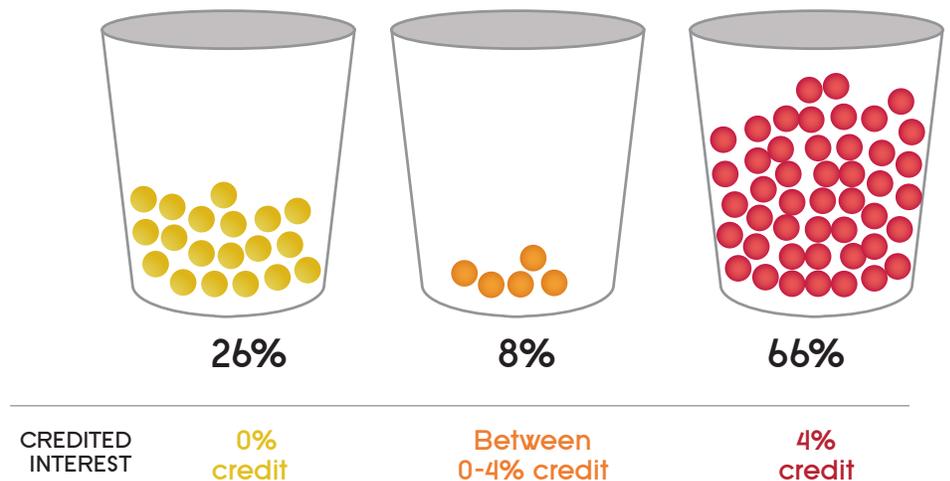
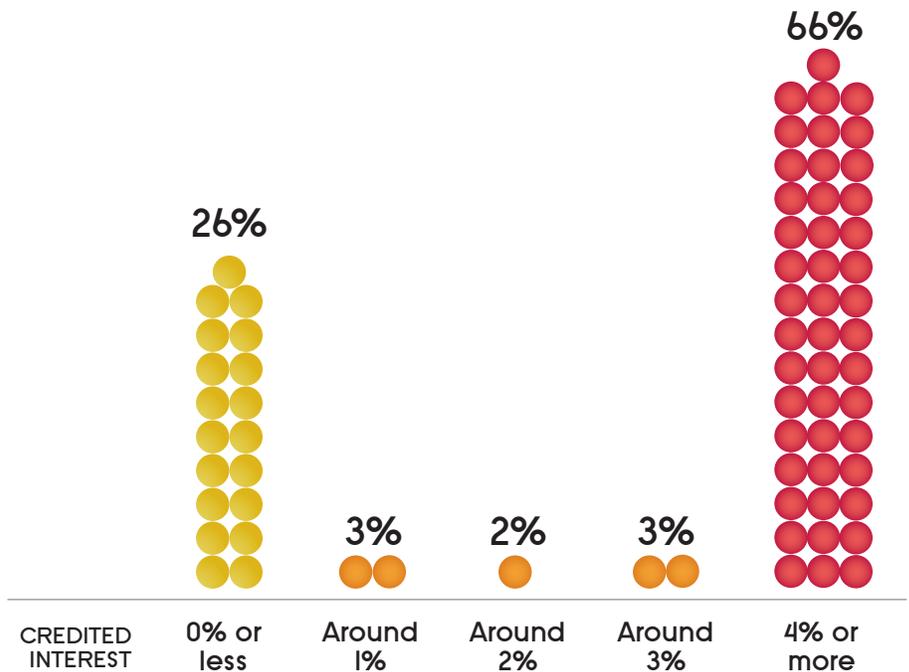
First, we'll take all the yellow balls that are 0% or below and put them in a single pile because the FIA guarantees it will never credit less than 0%. Second, we'll take all the red balls that are 4.0% or above and put them in a single pile because the FIA cannot credit more than 4.0%. The orange balls stay where they are.

Here, we see that there are huge piles of red and yellow balls, but that doesn't tell us the whole story about how the cap strategy performs over time. Historically, this is what might happen in any given year, but the performance is based on the sequence of many years.

To illustrate how this affects the credited interest, let's perform an experiment.

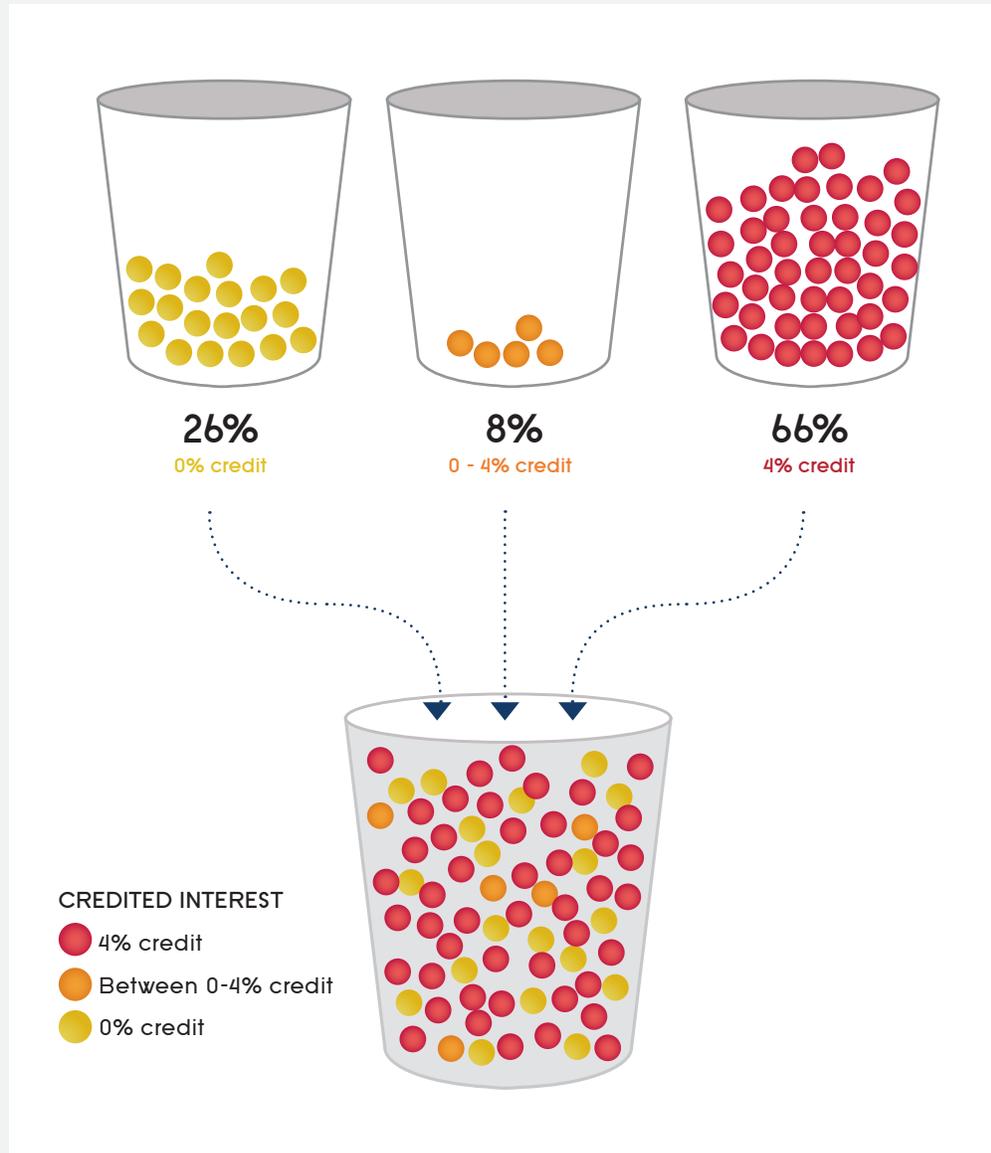
Imagine that the balls get sorted into buckets based on color. This way, we can see how often we got each of these kinds of results.

HISTORICAL FREQUENCY OF ONE-YEAR INTEREST FROM CAP STRATEGY



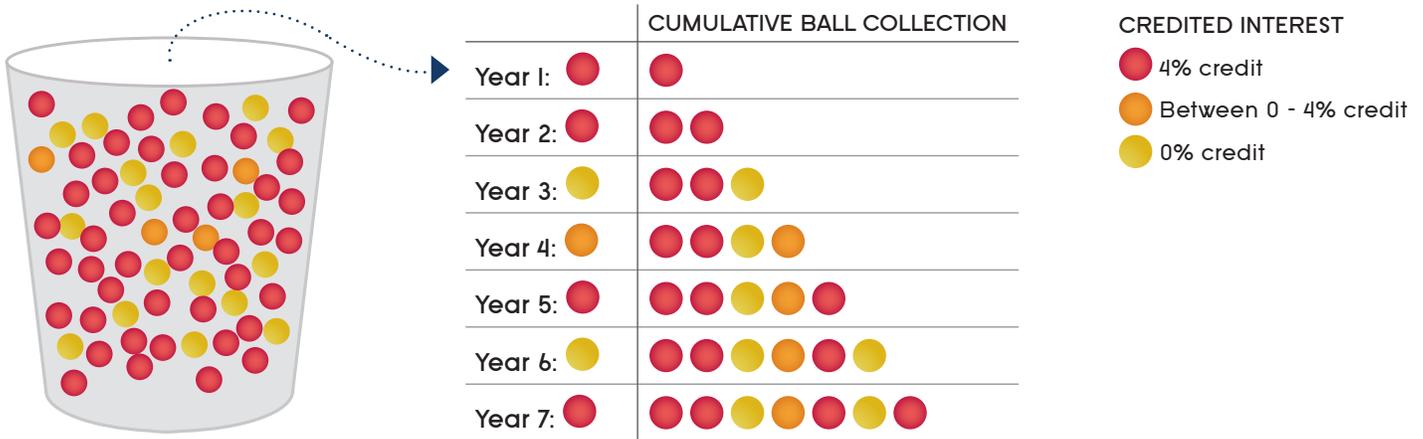
Now, we pour all of the balls into a single bucket. Each year, we randomly pick a ball from the bucket and then put it back before picking another one the next year.

For a 7-year contract, we repeat this process so we have picked balls seven times. The cumulative effect then gives us the total annualized account credit over the life of the contract. **We rarely pull out an orange ball but the results balance out to a point in the orange range.**



EACH YEAR, WE RANDOMLY PICK A BALL FROM THE BUCKET AND THEN PUT IT BACK BEFORE PICKING ANOTHER ONE THE NEXT YEAR.

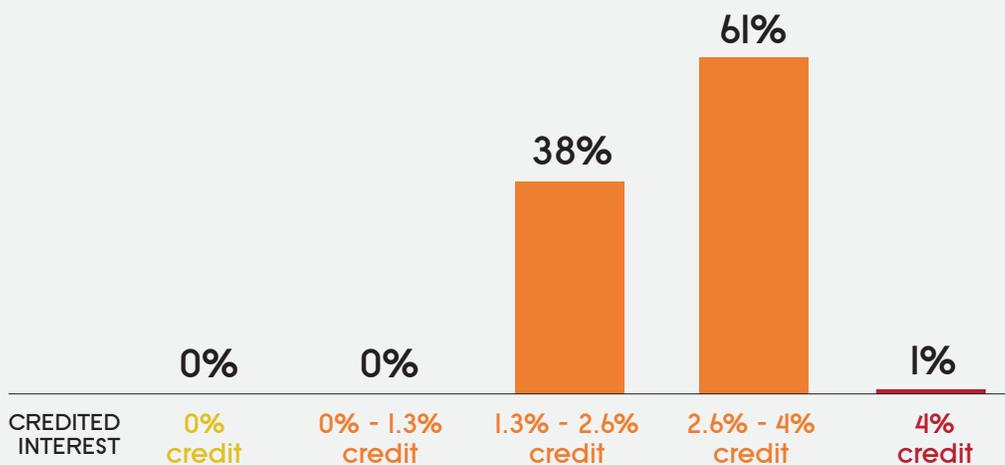
Here is an example of what might happen each year as we pick balls out of the bucket.



Even though there are a lot of red balls in the bucket, it's not likely that you will pull red balls seven times in a row. The same is even more true for the yellow balls. This is the effect of repeating the credited interest calculation year after year.

Moving back to the historical returns, we can look at the distribution of results after all of the 7-year periods we looked at. You can see that almost all of the results are orange balls, even though we know that most of the balls in any given year were either red or yellow!

HISTORICAL FREQUENCY OF 7-YEAR INTEREST



Averaging the credited interest from all of those historical sequences, the average annual yield for this FIA after seven years is 2.73%. Of course, we expect it to be between the floor (0%) and the cap (4%). This is going to be the case for any cap strategy, even though the cap and the index itself may be different.

WHAT CAN YOU EXPECT FROM A POINT-TO-POINT CAP STRATEGY?

There are two key things to keep in mind when considering the selection of a crediting strategy. First, what do you expect to get out of the FIA? Any FIA guarantees that the account value will not lose money from index losses. The cap strategy may credit higher than a bank CD or a declared rate fixed annuity. Anyone who buys an FIA has to tolerate the possibility that the actual credit may be lower than those alternatives, too.

The second thing to consider is what your “market conviction” is. Market conviction is the belief in how markets—in this case, the specific index—are likely to behave in the future. In the case of this kind of cap strategy, it's important to remember that any index return over the cap doesn't increase the amount credited to the FIA. That means that **this strategy benefits when index returns are consistently positive. Big gains don't matter.** Some indices have returns that may not have high (over the cap) gains often but are consistent, which can fit well with a cap strategy.

The point-to-point cap strategy is one of various crediting strategies available on an FIA. This series will explore different strategies as well as factors that are important when considering the benefits of an FIA. 