# Retirement Distribution Planning – Part II
# Sequence of Returns

## Aug 2nd

In our **July 13th ONEIdea**, we discussed the benefits of cash value life insurance from a tax diversification perspective. To summarize, clients who allocate assets earmarked for retirement distribution purposes into nest eggs that are taxed differently can benefit greatly from enhanced income during their retirement years. One of those nest eggs should be life insurance due to the potential tax-free nature of distributions from accumulated cash values.

This ONEIdea takes a bit of a different approach, although the conclusion of setting aside retirement assets into a nest egg called "cash value life insurance" is the same.

We have all heard the following trick question ... "if the stock market (as measured by the S&P 500) goes down by 50% in a year, how much does the market have to go up in the following year to recover to the same level?" Many people will say "50%" as a quick answer, but that's not correct. Once these people think about the question for more than a few seconds, they realize that the answer is "100%".

When there is a market correction during the accumulation phase and time is on your side, you can ride it out and wait for the inevitable market rebound, which has always happened. After the Tech Bubble of 2000, 2001, 2002, the market generated 5 straight years of positive returns and after the Great Recession of 2008, the market generated 8 straight years of gains.

The S&P 500 Returns for the 28-year period from January 1989 until December 2016 is shown to the left as they occurred.

| S&P 500 Returns | 12 Months Ending |
|---|---|
| 31.69% | 31-Dec-89 |
| -3.10% | 31-Dec-90 |
| 30.47% | 31-Dec-91 |
| 7.62% | 31-Dec-92 |
| 10.08% | 31-Dec-93 |
| 1.32% | 31-Dec-94 |
| 37.58% | 31-Dec-95 |
| 22.96% | 31-Dec-96 |
| 33.36% | 31-Dec-97 |
| 28.58% | 31-Dec-98 |
| 21.04% | 31-Dec-99 |
| -9.10% | 31-Dec-00 |
| -11.89% | 31-Dec-01 |
| -22.10% | 31-Dec-02 |
| 28.68% | 31-Dec-03 |
| 10.88% | 31-Dec-04 |
| 4.91% | 31-Dec-05 |
| 15.79% | 31-Dec-06 |
| 5.49% | 31-Dec-07 |
| -37.00% | 31-Dec-08 |
| 26.46% | 31-Dec-09 |
| 15.06% | 31-Dec-10 |
| 2.11% | 31-Dec-11 |
| 16.00% | 31-Dec-12 |
| 32.39% | 31-Dec-13 |
| 13.69% | 31-Dec-14 |
| 1.38% | 31-Dec-15 |
| 11.96% | 31-Dec-16 |

| Age | Starting Balance | Market Return | Distribution | Ending Balance |
|---|---|---|---|---|
| 40 | $ 100,000 | $ 31,690 | $ - | $ 131,690 |
| 41 | $ 131,690 | $ (4,082) | $ - | $ 127,608 |
| 42 | $ 127,608 | $ 38,882 | $ - | $ 166,490 |
| 43 | $ 166,490 | $ 12,687 | $ - | $ 179,176 |
| 44 | $ 179,176 | $ 18,061 | $ - | $ 197,237 |
| 45 | $ 197,237 | $ 2,604 | $ - | $ 199,841 |
| 46 | $ 199,841 | $ 75,100 | $ - | $ 274,941 |
| 47 | $ 274,941 | $ 63,126 | $ - | $ 338,067 |
| 48 | $ 338,067 | $ 112,779 | $ - | $ 450,846 |
| 49 | $ 450,846 | $ 128,852 | $ - | $ 579,698 |
| 50 | $ 579,698 | $ 121,969 | $ - | $ 701,667 |
| 51 | $ 701,667 | $ (63,852) | $ - | $ 637,815 |
| 52 | $ 637,815 | $ (75,836) | $ - | $ 561,979 |
| 53 | $ 561,979 | $ (124,197) | $ - | $ 437,782 |
| 54 | $ 437,782 | $ 125,556 | $ - | $ 563,337 |
| 55 | $ 563,337 | $ 61,291 | $ - | $ 624,628 |
| 56 | $ 624,628 | $ 30,669 | $ - | $ 655,298 |
| 57 | $ 655,298 | $ 103,471 | $ - | $ 758,769 |
| 58 | $ 758,769 | $ 41,656 | $ - | $ 800,426 |
| 59 | $ 800,426 | $ (296,157) | $ - | $ 504,268 |
| 60 | $ 504,268 | $ 133,429 | $ - | $ 637,697 |
| 61 | $ 637,697 | $ 96,037 | $ - | $ 733,735 |
| 62 | $ 733,735 | $ 15,482 | $ - | $ 749,216 |
| 63 | $ 749,216 | $ 119,875 | $ - | $ 869,091 |
| 64 | $ 869,091 | $ 281,499 | $ - | $ 1,150,590 |
| 65 | $ 1,150,590 | $ 157,516 | $ - | $ 1,308,105 |
| 66 | $ 1,308,105 | $ 18,052 | $ - | $ 1,326,157 |
| 67 | $ 1,326,157 | $ 158,608 | $ - | $ 1,484,766 |

Had a 40-year-old client started with $100,000 in his or her IRA on January 1989, upon reaching retirement age of 67, the balance of the funds would be $1,484,766 assuming no further contributions (table above right).

But what if the returns had not been in that order? What if we shuffled the returns from lowest (worst performing years) to highest (best performing years) or highest to lowest?

Interestingly enough, the ending balance after the 28-year period would be exactly the same. In fact, no matter how you randomize the returns, the ending balance will always be $1,484,766. See the table below.

| S&P 500 Returns | Age | Starting Balance | Market Return | Distribution | Ending Balance |
|---|---|---|---|---|---|
| -37.00% | 40 | $ 100,000 | $ (37,000) | $ - | $ 63,000 |
| -22.10% | 41 | $ 63,000 | $ (13,923) | $ - | $ 49,077 |
| -11.89% | 42 | $ 49,077 | $ (5,835) | $ - | $ 43,242 |
| -9.10% | 43 | $ 43,242 | $ (3,935) | $ - | $ 39,307 |
| -3.10% | 44 | $ 39,307 | $ (1,219) | $ - | $ 38,088 |
| 1.32% | 45 | $ 38,088 | $ 503 | $ - | $ 38,591 |
| 1.38% | 46 | $ 38,591 | $ 533 | $ - | $ 39,124 |
| 2.11% | 47 | $ 39,124 | $ 826 | $ - | $ 39,949 |
| 4.91% | 48 | $ 39,949 | $ 1,961 | $ - | $ 41,911 |
| 5.49% | 49 | $ 41,911 | $ 2,301 | $ - | $ 44,211 |
| 7.62% | 50 | $ 44,211 | $ 3,369 | $ - | $ 47,580 |
| 10.08% | 51 | $ 47,580 | $ 4,796 | $ - | $ 52,376 |
| 10.88% | 52 | $ 52,376 | $ 5,699 | $ - | $ 58,075 |
| 11.96% | 53 | $ 58,075 | $ 6,946 | $ - | $ 65,021 |
| 13.69% | 54 | $ 65,021 | $ 8,901 | $ - | $ 73,922 |
| 15.06% | 55 | $ 73,922 | $ 11,133 | $ - | $ 85,055 |
| 15.79% | 56 | $ 85,055 | $ 13,430 | $ - | $ 98,485 |
| 16.00% | 57 | $ 98,485 | $ 15,758 | $ - | $ 114,243 |
| 21.04% | 58 | $ 114,243 | $ 24,037 | $ - | $ 138,279 |
| 22.96% | 59 | $ 138,279 | $ 31,749 | $ - | $ 170,028 |
| 26.46% | 60 | $ 170,028 | $ 44,989 | $ - | $ 215,018 |
| 28.58% | 61 | $ 215,018 | $ 61,452 | $ - | $ 276,470 |
| 28.68% | 62 | $ 276,470 | $ 79,291 | $ - | $ 355,761 |
| 30.47% | 63 | $ 355,761 | $108,400 | $ - | $ 464,161 |
| 31.69% | 64 | $ 464,161 | $147,093 | $ - | $ 611,254 |
| 32.39% | 65 | $ 611,254 | $197,985 | $ - | $ 809,239 |
| 33.36% | 66 | $ 809,239 | $269,962 | $ - | $1,079,202 |
| 37.58% | 67 | $1,079,202 | $405,564 | $ - | $1,484,766 |

| S&P 500 Returns | Age | Starting Balance | Market Return | Distribution | Ending Balance |
|---|---|---|---|---|---|
| 37.58% | 40 | $ 100,000 | $ 37,580 | $ - | $ 137,580 |
| 33.36% | 41 | $ 137,580 | $ 45,897 | $ - | $ 183,477 |
| 32.39% | 42 | $ 183,477 | $ 59,428 | $ - | $ 242,905 |
| 31.69% | 43 | $ 242,905 | $ 76,977 | $ - | $ 319,881 |
| 30.47% | 44 | $ 319,881 | $ 97,468 | $ - | $ 417,349 |
| 28.68% | 45 | $ 417,349 | $ 119,696 | $ - | $ 537,045 |
| 28.58% | 46 | $ 537,045 | $ 153,487 | $ - | $ 690,532 |
| 26.46% | 47 | $ 690,532 | $ 182,715 | $ - | $ 873,247 |
| 22.96% | 48 | $ 873,247 | $ 200,498 | $ - | $1,073,745 |
| 21.04% | 49 | $1,073,745 | $ 225,916 | $ - | $1,299,661 |
| 16.00% | 50 | $1,299,661 | $ 207,946 | $ - | $1,507,606 |
| 15.79% | 51 | $1,507,606 | $ 238,051 | $ - | $1,745,657 |
| 15.06% | 52 | $1,745,657 | $ 262,896 | $ - | $2,008,553 |
| 13.69% | 53 | $2,008,553 | $ 274,971 | $ - | $2,283,524 |
| 11.96% | 54 | $2,283,524 | $ 273,110 | $ - | $2,556,634 |
| 10.88% | 55 | $2,556,634 | $ 278,162 | $ - | $2,834,796 |
| 10.08% | 56 | $2,834,796 | $ 285,747 | $ - | $3,120,543 |
| 7.62% | 57 | $3,120,543 | $ 237,785 | $ - | $3,358,328 |
| 5.49% | 58 | $3,358,328 | $ 184,372 | $ - | $3,542,701 |
| 4.91% | 59 | $3,542,701 | $ 173,947 | $ - | $3,716,647 |
| 2.11% | 60 | $3,716,647 | $ 78,421 | $ - | $3,795,068 |
| 1.38% | 61 | $3,795,068 | $ 52,372 | $ - | $3,847,440 |
| 1.32% | 62 | $3,847,440 | $ 50,786 | $ - | $3,898,227 |
| -3.10% | 63 | $3,898,227 | $(120,845) | $ - | $3,777,382 |
| -9.10% | 64 | $3,777,382 | $(343,742) | $ - | $3,433,640 |
| -11.89% | 65 | $3,433,640 | $(408,260) | $ - | $3,025,380 |
| -22.10% | 66 | $3,025,380 | $(668,609) | $ - | $2,356,771 |
| -37.00% | 67 | $2,356,771 | $(872,005) | $ - | $1,484,766 |

As we mentioned in our prior ONEIdea, **everything changes at retirement when the distribution phase begins.** In fact, the sequence of returns during the distribution phase is critical to the long-term success of a client's retirement years. Unfortunately, neither the timing nor the sequence of returns is something that can be controlled.

Let's assume the exact same sequence of returns as in the example above. If we take the ending balance of $1,484,766 and take $100,000 in distributions annually, the results are DRAMATICALLY different. As you see below, when the negative return years are experienced first, the client runs out of money in year 7, whereas the client that started with the positive returns ends up with **over $16MM at age 95.**

The reason for this, of course, is that the client that starts with negative returns is selling into down markets, resulting in a loss that cannot be recovered from over time. The losses are "realized" upon the sale of the asset and the money is forever gone.

| S&P 500 Returns | Age | Starting Balance | Market Return | Distribution | Ending Balance | S&P 500 Returns | Age | Starting Balance | Market Return | Distribution | Ending Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| -37.00% | 68 | $1,484,766 | $(549,363) | $ (100,000) | $835,403 | 37.58% | 68 | $ 1,484,766 | $ 557,975 | $ (100,000) | $ 1,942,741 |
| -22.10% | 69 | $ 835,403 | $(184,624) | $ (100,000) | $550,779 | 33.36% | 69 | $ 1,942,741 | $ 648,098 | $ (100,000) | $ 2,490,839 |
| -11.89% | 70 | $ 550,779 | $ (65,488) | $ (100,000) | $385,291 | 32.39% | 70 | $ 2,490,839 | $ 806,783 | $ (100,000) | $ 3,197,622 |
| -9.10% | 71 | $ 385,291 | $ (35,061) | $ (100,000) | $250,230 | 31.69% | 71 | $ 3,197,622 | $ 1,013,327 | $ (100,000) | $ 4,110,949 |
| -3.10% | 72 | $ 250,230 | $ (7,757) | $ (100,000) | $142,472 | 30.47% | 72 | $ 4,110,949 | $ 1,252,606 | $ (100,000) | $ 5,263,555 |
| 1.32% | 73 | $ 142,472 | $ 1,881 | $ (100,000) | $ 44,353 | 28.68% | 73 | $ 5,263,555 | $ 1,509,588 | $ (100,000) | $ 6,673,143 |
| 1.38% | 74 | $ 44,353 | $ 612 | $ (100,000) | $ - | 28.58% | 74 | $ 6,673,143 | $ 1,907,184 | $ (100,000) | $ 8,480,327 |
| 2.11% | 75 | $ - | $ - | $ (100,000) | $ - | 26.46% | 75 | $ 8,480,327 | $ 2,243,894 | $ (100,000) | $10,624,221 |
| 4.91% | 76 | $ - | $ - | $ (100,000) | $ - | 22.96% | 76 | $10,624,221 | $ 2,439,321 | $ (100,000) | $12,963,543 |
| 5.49% | 77 | $ - | $ - | $ (100,000) | $ - | 21.04% | 77 | $12,963,543 | $ 2,727,529 | $ (100,000) | $15,591,072 |
| 7.62% | 78 | $ - | $ - | $ (100,000) | $ - | 16.00% | 78 | $15,591,072 | $ 2,494,571 | $ (100,000) | $17,985,643 |
| 10.08% | 79 | $ - | $ - | $ (100,000) | $ - | 15.79% | 79 | $17,985,643 | $ 2,839,933 | $ (100,000) | $20,725,576 |
| 10.88% | 80 | $ - | $ - | $ (100,000) | $ - | 15.06% | 80 | $20,725,576 | $ 3,121,272 | $ (100,000) | $23,746,848 |
| 11.96% | 81 | $ - | $ - | $ (100,000) | $ - | 13.69% | 81 | $23,746,848 | $ 3,250,944 | $ (100,000) | $26,897,792 |
| 13.69% | 82 | $ - | $ - | $ (100,000) | $ - | 11.96% | 82 | $26,897,792 | $ 3,216,976 | $ (100,000) | $30,014,768 |
| 15.06% | 83 | $ - | $ - | $ (100,000) | $ - | 10.88% | 83 | $30,014,768 | $ 3,265,607 | $ (100,000) | $33,180,374 |
| 15.79% | 84 | $ - | $ - | $ (100,000) | $ - | 10.08% | 84 | $33,180,374 | $ 3,344,582 | $ (100,000) | $36,424,956 |
| 16.00% | 85 | $ - | $ - | $ (100,000) | $ - | 7.62% | 85 | $36,424,956 | $ 2,775,582 | $ (100,000) | $39,100,538 |
| 21.04% | 86 | $ - | $ - | $ (100,000) | $ - | 5.49% | 86 | $39,100,538 | $ 2,146,620 | $ (100,000) | $41,147,157 |
| 22.96% | 87 | $ - | $ - | $ (100,000) | $ - | 4.91% | 87 | $41,147,157 | $ 2,020,325 | $ (100,000) | $43,067,483 |
| 26.46% | 88 | $ - | $ - | $ (100,000) | $ - | 2.11% | 88 | $43,067,483 | $ 908,724 | $ (100,000) | $43,876,207 |
| 28.58% | 89 | $ - | $ - | $ (100,000) | $ - | 1.38% | 89 | $43,876,207 | $ 605,492 | $ (100,000) | $44,381,698 |
| 28.68% | 90 | $ - | $ - | $ (100,000) | $ - | 1.32% | 90 | $44,381,698 | $ 585,838 | $ (100,000) | $44,867,537 |
| 30.47% | 91 | $ - | $ - | $ (100,000) | $ - | -3.10% | 91 | $44,867,537 | $(1,390,894) | $ (100,000) | $43,376,643 |
| 31.69% | 92 | $ - | $ - | $ (100,000) | $ - | -9.10% | 92 | $43,376,643 | $(3,947,275) | $ (100,000) | $39,329,369 |
| 32.39% | 93 | $ - | $ - | $ (100,000) | $ - | -11.89% | 93 | $39,329,369 | $(4,676,262) | $ (100,000) | $34,553,107 |
| 33.36% | 94 | $ - | $ - | $ (100,000) | $ - | -22.10% | 94 | $34,553,107 | $(7,636,237) | $ (100,000) | $26,816,870 |
| 37.58% | 95 | $ - | $ - | $ (100,000) | $ - | -37.00% | 95 | $26,816,870 | $(9,922,242) | $ (100,000) | $16,794,628 |

This is a rather dramatic and possibly ridiculous set of assumptions, but it proves a point. A more realistic analysis would be to look at what would have happened to this client had he or she suffered the unfortunate experience of retiring in the year 2000. Had that been the case, he or she would have run out of money by age 81 - 14 years into retirement.

What if a client could time their distributions from IRA invested assets based on the market returns while having another nest egg of funds to draw upon when the markets have suffered losses? If the client, at age 40 as in our example, planned for it and had allocated part of his or her savings nest egg into life insurance he or she could time the distributions based on market returns. Let's look at the following example which is taken from an excellent marketing piece from AXA Financial called **"Smooth Sailing on Uncertain Waters"** which includes the chart shown below. In this case study, the hypothetical client, Tom, had purchased a cash value life insurance policy at age 40 in the amount of $500,000 with an annual contribution of $7,000 per year.

In the years following a down market, Tom takes a distribution from his life insurance policy to cover his income needs during retirement. Please note that because a withdrawal or loan from a life insurance policy is not taxable, Tom can withdraw a lower amount of money than would otherwise be needed from his IRA.

| Retirement Account Assuming 1% Inflation Using Life Insurance Cash Values Following Down Market Years | | | | | | | | Life Insurance Policy | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Beginning of Year Balance | Annual Withdrawal | RMD Divisor | RMD in Down Market Years | Post Withdrawal Balance | Hypothetical S & P 500 Return* | End of Year Balance | Premiums | Death Benefit | Withdrawal Loan | End of Year Cash Value |
| 65 | $1,000,000 | ($70,000) | | | $930,000 | -14.66% | $793,662 | $6,967 | $500,000 | $0 | $233,000 |
| 66 | 793,662 | 0 | | | 793,662 | -26.47% | 583,580 | 0 | 450,000 | (50,000) | 195,000 |
| 67 | 583,580 | 0 | | | 583,580 | 37.20% | 800,671 | 0 | 400,000 | (50,000) | 155,100 |
| 68 | 800,671 | -72,121 | | | 728,550 | 23.84% | 902,237 | 0 | 400,000 | – | 165,000 |
| 69 | 902,237 | -72,842 | | | 829,394 | -7.16% | 770,010 | 0 | 400,000 | – | 176,000 |
| 70 | 770,010 | 0 | | | 770,010 | 6.56% | 820,522 | 0 | 350,000 | (50,000) | 133,000 |
| 71 | 820,522 | -74,306 | 27.4 | | 746,216 | 18.44% | 883,818 | 0 | 350,500 | – | 141,000 |
| 72 | 883,818 | -75,049 | 26.5 | | 808,769 | 32.50% | 1,071,618 | 0 | 349,000 | – | 148,000 |
| 73 | 1,071,618 | -75,800 | 25.6 | | 995,819 | -4.92% | 946,824 | 0 | 349,000 | – | 156,000 |
| 74 | 946,824 | 0 | 24.7 | -38,333 | 908,491 | 21.55% | 1,104,271 | 0 | 309,900 | (38,225) | 12,400 |
| 75 | 1,104,271 | -77,324 | 23.8 | | 1,026,948 | 22.56% | 1,258,627 | 0 | 308,900 | – | 129,000 |
| 76 | 1,258,627 | -78,097 | 22.9 | | 1,180,530 | 6.27% | 1,254,549 | 0 | 307,850 | – | 13,500 |
| 77 | 1,254,549 | -78,878 | 22.0 | | 1,175,672 | 31.73% | 1,548,712 | 0 | 306,800 | – | 141,000 |
| 78 | 1,548,712 | -79,667 | 21.2 | | 1,469,046 | 18.67% | 1,743,317 | 0 | 305,700 | – | 147,600 |
| 79 | 1,743,317 | -80,463 | 20.3 | | 1,662,853 | 5.25% | 1,750,153 | 0 | 304,600 | – | 154,000 |
| 80 | 1,750,153 | -81,268 | 19.5 | | 1,668,885 | 16.61% | 1,946,087 | 0 | 303,500 | – | 161,000 |
| 81 | 1,946,087 | -82,081 | 18.7 | | 1,864,007 | 31.69% | 2,454,711 | 0 | 302,300 | – | 169,000 |
| 82* | 2,454,711 | -82,901 | 17.9 | | 2,371,809 | -3.11% | 2,298,046 | 0 | 301,200 | – | 178,000 |
| 83 | 2,298,046 | 0 | 17.1 | -83,730 | 2,214,316 | 30.47% | 2,889,018 | 0 | 300,000 | Covered with RMD | 186,000 |
| 84 | 2,889,018 | -84,568 | 16.3 | | 2,804,450 | 7.62% | 3,018,149 | 0 | 298,800 | – | 196,000 |
| 85 | 3,018,149 | -85,413 | 15.5 | | 2,932,736 | 10.08% | 3,228,356 | 0 | 297,500 | – | 207,000 |

Here RMDs are built into the planning. It's assumed RMDs are taken in all years as part of the withdrawals, but we are only highlighting these in years when there is a loss to show what needs to come out of the life insurance policy. The RMDs will not exceed the inflation adjusted income until age 82.
**At age 82 the RMD amount exceeds the client's inflation adjusted income needs. Only the income need is shown. It's assumed that any excess amounts are reinvested in a non-retirement account.*

As you can see, at age 85 Tom still has over $3.2MM in his retirement account, whereas had he been forced to take distributions from his IRA to fund his retirement needs in the years after a market loss, his account would have had a balance of $444,000. **The difference is dramatic.**

It is important to note that we are not taking a stand on whether the cash value policy should be a universal life, whole life or indexed universal life. However, we do not recommend a variable life product in this situation because it is subject to the same positive and negative returns as in the IRA.

AXA has created an illustration template in their life insurance proposal system that can be used to illustrate this sales concept.

Let AgencyONE help you show your clients how they can realize significantly enhanced income during their retirement years by including the purchase of a life insurance policy as a part of their retirement savings plan.

**Please call AgencyONE's Marketing Department at 301.803.7500 for more information or to discuss a case!**