henry@YourIndependentAdviser.com

## Spring 2018 Newsletter:

\#1 The Castling Defensive Portfolio Beat its Bond Competition in 2017, but Could Not Keep Up on the_ Stock Side; Do We Pull the Plug or Our Hair?
\#2 To Claim or Not to Claim... That is the Question... Uh. Maybe That Should be...To Claim, but When to Claim?
\#3 Do Not Forsake Me, Oh My Darling Domicile...What to Consider Before Considering a Reverse Mortgage
\#4 The Longevity Portfolio Versus the Longevity Annuity... If You Can't Take it With You, Can You Still. Leave it Behind?

## The Castling Defensive Portfolio Beat its Bond Competition in 2017, but Could Not Keep Up on the. Stock Side; Do We Pull the Plug or Our Hair?

The Castling Defensive Portfolio (CDP) was our creation more than a decade ago, as an extremely low volatility mix of investments that should have a good chance of achieving an annualized total return of $7.2 \%$ (over a rolling period of years). The idea was to come up with the lowest allocation to stocks possible (about 31\%), that could still achieve its objective. When successful, this approach results in a rough doubling of principal over a ten year period.

The stock bear markets of the early 2000s and of 2008-2009 were not a problem for the CDP. But today's persistent low interest rate environment prevents it from reaching its goal. Once again in 2017, the CDP missed that $7.2 \%$ benchmark, but did return $+5.44 \%$.

So what about the long game? Over the eighteen year period (2000-2017), the annualized return has been $6.78 \%$, still $0.42 \%$ away from our goal. Since the CDP consists of less than one third stocks, it does not share in all of the upside when the equity markets do well, such as in 2017. On the bond side, when yields increase, bond prices move in the opposite direction, thus cutting into the total return (a combination of the coupon interest and the capital appreciation or depreciation).

The real purpose of the CDP was to show how our analysis can result in portfolios that have remarkably low volatility, because our emphasis in researching them is to look for "consistency" as the most highly desired attribute, instead of temporary high performance.

If we were simply trying to compare the CDP against an asset weighted benchmark, we would use $31 \%$ of the Vanguard Total Stock Market Index Fund (Investor Shares with ticker: VTSMX) and 69\% of the Vanguard Total Bond Market Index Fund (Investor Shares with ticker: VBMFX). Such a mix returned a very respectable $8.91 \%{ }^{\underline{1}}$.

So do we pull the plug? Or pull our hair out?
This is where it helps to review what a truly "bad" year looked like. Back in 2008, the CDP posted a $-6.15 \%$ total return. There was a lot of red ink to go around that year. On the other hand, had you invested in the above $31 \% / 69 \%$ two fund mixture, your loss would have been $-8 \%$. Unfortunately, these two fine index funds were not in existence during the 2000-2002 bear market. This would have been a good test to compare versus our CDP, which stayed positive the entire time (Please note that our performance
numbers for this period are the result of back testing/calculations. Our CDP was initially constructed in 2007).

Our table below compares the CDP to several individual Vanguard funds. What is especially noteworthy are the numbers shown in green and red. This is our favorite risk measurement, called the coefficient of variation (CoV: how much variability there is per unit of return). Lower values imply lesser risk and more consistency.

| Castling Defensive Portfolio (CDP) Comparison | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Castling Defensive Portfolio Yearly Returns | 7.48\% | 5.74\% | 6.71\% | -0.22\% | 6.77\% | 5.44\% |
| Back-Tested Cumulative Return Since 2000 | 156.84\% | 171.59\% | 189.81\% | 189.16\% | 208.75\% | 225.55\% |
| Hypothetical Growth of \$10,000 Since 2000 | \$25,684 | \$27,159 | \$28,981 | \$28,916 | \$30,875 | \$32,555 |
| Annualized Return (2000-2017) | 7.53\% | 7.40\% | 7.35\% | 6.86\% | 6.86\% | 6.78\% |
| Standard Deviation (2000-2017) | 4.99\% | 4.82\% | 4.65\% | 4.88\% | 4.73\% | 4.60\% |
| Coefficient of Variation (2000-2017) | 0.66 | 0.65 | 0.63 | 0.71 | 0.69 | 0.68 |
| Wellesley Income (VWINX) Yearly Returns | 10.06\% | 9.19\% | 8.07\% | 1.28\% | 8.08\% | 10.20\% |
| Back-Tested Cumulative Return Since 2000 | 161.54\% | 185.57\% | 208.62\% | 212.57\% | 237.82\% | 272.28\% |
| Hypothetical Growth of \$10,000 Since 2000 | \$26,154 | \$28,557 | \$30,862 | \$31,257 | \$33,782 | \$37,228 |
| Annualized Return (2000-2017) | 7.68\% | 7.78\% | 7.80\% | 7.38\% | 7.42\% | 7.58\% |
| Standard Deviation (2000-2017) | 6.55\% | 6.30\% | 6.07\% | 6.10\% | 5.91\% | 5.76\% |
| Coefficient of Variation (2000-2017) | 0.85 | 0.81 | 0.78 | 0.83 | 0.80 | 0.76 |
| Wellington (VWELX) Yearly Returns | 12.57\% | 19.66\% | 9.82\% | 0.06\% | 11.01\% | 14.72\% |
| Back-Tested Cumulative Return Since 2000 | 135.53\% | 181.84\% | 209.52\% | 209.70\% | 243.80\% | 294.41\% |
| Hypothetical Growth of \$10,000 Since 2000 | \$23,553 | \$28,184 | \$30,952 | \$30,970 | \$34,380 | \$39,441 |
| Annualized Return (2000-2017) | 6.81\% | 7.68\% | 7.82\% | 7.32\% | 7.53\% | 7.92\% |
| Standard Deviation (2000-2017) | 11.65\% | 11.65\% | 11.24\% | 11.06\% | 10.73\% | 10.53\% |
| Coefficient of Variation (2000-2017) | 1.71 | 1.52 | 1.44 | 1.51 | 1.42 | 1.33 |
| Vanguard 500 Index (VFINX) Yearly Returns | 15.82\% | 32.18\% | 13.51\% | 1.25\% | 11.82\% | 21.67\% |
| Back-Tested Cumulative Return Since 2000 | 22.36\% | 61.73\% | 83.58\% | 85.87\% | 107.84\% | 152.88\% |
| Hypothetical Growth of \$10,000 Since 2000 | \$12,236 | \$16,173 | \$18,358 | \$18,587 | \$20,784 | \$25,288 |
| Annualized Return (2000-2017) | 1.56\% | 3.49\% | 4.13\% | 3.95\% | 4.40\% | 5.29\% |
| Standard Deviation (2000-2017) | 19.02\% | 19.83\% | 19.22\% | 18.61\% | 18.08\% | 17.92\% |
| Coefficient of Variation (2000-2017) | 12.16 | 5.68 | 4.65 | 4.71 | 4.11 | 3.39 |

What about adding gold to our CDP? We have studied this before. Below, we have a table of various percentage allocations to the BlackRock iShares Gold ETF (ticker: IAU)른. Our view is that an allocation of between $1 \%$ and $10 \%$ to gold would be beneficial. Going beyond this percentage appears to increase the CoV significantly.

| Castling Defensive Portfolio (CDP) Comparison | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Castlinq Defensive Portfolio Yearly Returns | $7.48 \%$ | $5.74 \%$ | $6.71 \%$ | $-0.22 \%$ | $6.77 \%$ | $5.44 \%$ |
| Total Return: BlackRock iShares Gold ETF (IAU) | $8.37 \%$ | $-27.94 \%$ | $-0.43 \%$ | $-11.71 \%$ | $8.88 \%$ | $11.56 \%$ |
| Return: CDP: 100\%; Gold ETF (IAU): 0\% Alloc. | $7.48 \%$ | $5.74 \%$ | $6.71 \%$ | $-0.22 \%$ | $6.77 \%$ | $5.44 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $5.69 \%$ | $5.67 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $5.18 \%$ | $4.94 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 0.91 | 0.87 |
| Retum: CDP: 99\%; Gold ETF (IAU): 1\% Alloc. | $7.49 \%$ | $5.40 \%$ | $6.64 \%$ | $-0.34 \%$ | $6.80 \%$ | $5.50 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $5.72 \%$ | $5.70 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $5.21 \%$ | $4.97 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 0.91 | 0.87 |
| Returm: CDP: 95\%; GoldETF (IAU): 5\% Alloc. | $7.53 \%$ | $4.06 \%$ | $6.35 \%$ | $-0.80 \%$ | $6.88 \%$ | $5.74 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $5.83 \%$ | $5.8 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $5.36 \%$ | $5.1 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 0.92 | 0.88 |
| Return: CDP: 90\%; Gold ETF (IAU): 10\% Alloc. | $7.57 \%$ | $2.37 \%$ | $5.99 \%$ | $-1.37 \%$ | $6.99 \%$ | $6.05 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $5.96 \%$ | $5.97 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $5.65 \%$ | $5.39 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 0.95 | 0.90 |
| Return: CDP: 85\%; Gold ETF (IAU): 15\% Alloc. | $7.61 \%$ | $0.69 \%$ | $5.64 \%$ | $-1.94 \%$ | $7.09 \%$ | $6.36 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $6.09 \%$ | $6.11 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $6.04 \%$ | $5.76 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 0.99 | 0.94 |
| Return: CDP: 80\%; Gold ETF (IAU): 20\% Alloc. | $7.66 \%$ | $-0.99 \%$ | $5.28 \%$ | $-2.52 \%$ | $7.20 \%$ | $6.66 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $6.21 \%$ | $6.24 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $6.50 \%$ | $6.20 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 1.05 | 0.99 |
| Return: CDP: 75\%; Gold ETF (IAU): 25\% Alloc. | $7.70 \%$ | $-2.68 \%$ | $4.92 \%$ | $-3.09 \%$ | $7.30 \%$ | $6.97 \%$ |
| Annualized Return (2006-2017) |  |  |  |  | $6.32 \%$ | $6.38 \%$ |
| Standard Deviation (2006-2017) |  |  |  |  | $7.02 \%$ | $6.70 \%$ |
| Coefficient of Variation (2006-2017) |  |  |  |  | 1.11 | 1.05 |
|  |  |  |  |  |  |  |

As we have said in the past, understanding what kind of investor you really are is probably more important than understanding the minutiae of what is going on in the markets. Are you a person who cannot stomach volatility? Our CDP acts as a sort of litmus test. If you find its volatility (what little of it there is) to be nerve wracking, then perhaps you should not be an investor in the stock or bond markets at all. We also use the CDP in an analysis of longevity annuities, in a separate article.

2018 has already shown itself to be a much more volatile year than 2017. It has also exhibited a more significant move up in interest rates. This has hurt bonds, thus far. We still stand by our CDP as a very low volatility portfolio, which is fundamentally useful in accomplishing real goals, in addition to being a "scared-y-cat" test for very risk averse investors.

| $\begin{array}{\|l\|} \hline \text { 들 } \\ \text { 言 } \\ \text { 亮 } \\ 0 \end{array}$ |  |  | $\stackrel{0}{6}$ | $\stackrel{\circ}{5} \stackrel{\circ}{\circ}$ | Col io | $\stackrel{0}{\stackrel{0}{4}} \stackrel{2}{4}$ | $\stackrel{0}{0} \stackrel{0}{5}$ |  | Noio | 으눈 | 年 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 응 | $\mathbf{B}_{6}^{\mathbf{o}}$ | 웅 | $\stackrel{N}{2}$ |  | $\stackrel{\circ}{\circ} \stackrel{0}{\circ} \stackrel{0}{\circ}$ | $\circ$ | $\begin{aligned} & \stackrel{2}{6} \\ & \stackrel{0}{=} \end{aligned}$ | $\stackrel{\circ}{0}$ | － |  |
|  |  | $0$ | $5$ | Boib | $50$ |  | $\begin{array}{ll} 2 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}$ | $5$ |  | \％ | － |
|  |  |  | Bio | Bio | $3 \text { Bin }$ |  | Bio | $\begin{aligned} & \mathrm{O} \\ & \hline 0 \\ & \hline \end{aligned}$ | Bio | － |  |
|  |  | $0$ | 0 | Bo | $0$ |  |  | 僉 | So | 迷 | \％ |
|  | \％ | 응 | \％ | \％ | \％ | 응 | \％${ }^{\circ}$ | \％ | \％ | 令 | $\frac{20}{2}$ |
|  |  | 웅응 | So io io | Bion | $50_{0}^{20} 0$ | $\stackrel{0}{0} \stackrel{0}{2}$ | No in in | － | $\stackrel{0}{5}$ | 迷 |  |
|  | \％ | \％ | \％\％ | స | 를 | $\frac{\square}{2}$ | $\stackrel{\circ}{\circ}$ | － | \％ | \％ | － |
| $\left\|\begin{array}{l} \frac{4}{2} \\ \stackrel{y}{c} \\ \stackrel{y}{2} \end{array}\right\|$ |  |  |  | $\stackrel{a}{5} \stackrel{\rightharpoonup}{y}$ | $\stackrel{l}{㐅}$ |  |  | $\frac{s}{x} \frac{x}{3}$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | －～ | ～ | － |  | 0 | $01 \mathrm{r}$ | $\infty$ | の | 안 |  |

## To Claim or Not to Claim... That is the Question... Uh. Maybe That Should be...To Claim, but When to Claim?

Hamlet asked himself the central existential question of anyone's lifetime. One should give oneself time to ponder the point, shouldn't one? By contrast, why does the average American spend more time planning where to go on vacation, than planning if, when and how to take their Social Security benefits? Instead, the single largest proportion of men ( $35 \%$ ) and women ( $40 \%$ ) claim their Social Security at the tender age of 62, this being the earliest available age to receive regular (not survivor's) benefits ${ }^{3}$.

Does this make the most sense? Maybe? Then again, maybe not. Our purpose here is to provide a simple framework for understanding this question and to answer it in a way that is both flexible and that makes logical sense.

What should be alarming to us all, is the blind adherence to the zero effort, default decision: "If I can start taking it at age 62, I guess I'll take it at age 62". The first major point to note is that no one from the Social Security Administration (SSA), nor from any other branch of the federal government, is authorized to give you anything which would be legally seen as constituting "financial advice". Yes, they will lay out the facts and answer your specific questions. But tying this back to your individual situation (with all of its unique facts and circumstances) and determining what course of action would be in your own best interests? That is just not a part of their mission statement.

This is another area where pure financial planning built on independent analysis, definitely is the answer. Whether you do it all on your own, or seek out some professional guidance once in a while, the main thing is to arrive at the best decision that you can.

First, let's review in a nutshell what the Social Security (SS) "Old Age" program is all about and how it works. Your benefits are not calculated based upon how much you paid in payroll taxes. It appears likely that most people simply do not know how their future benefit is actually computed. They may also be somewhat amazed at how relatively short work histories can result in relatively meaningful benefits, while adding in long, stretched out careers of back breaking toil may result in relatively meager additional benefits. So do we need to understand the theory of relativity to get all this?

To qualify for a benefit, you first need to earn a sufficient quantity of what are called "credits", by working in what is considered "covered employment" (i.e. subject to the Social Security payroll tax). This means earned income and not investment income. Obviously, so called "under the table cash" type employment does not earn SS credits. In 2018 , one credit is earned for each $\$ 1,320$ of wage or salary income. But a maximum of
only four credits can be earned per year. So this amounts to just $\$ 5,280^{4}$. A high income earner could reach this level in less than a month and thereby, get the four credits needed for the year. Earn a minimum of 40 credits throughout your work history and viola, you qualify for a retirement benefit (survivors and the disabled can qualify with even fewer credits). Most people view this as being the ten year minimum requirement. A benefit amount is then calculated based upon the highest earning 35 years in the worker's career history. If you haven't been employed for that many years, no problem. The Social Security Administration fills in zeros for you, for non earning years. How generous.

Once again, your calculated monthly benefit does not directly depend upon how much in payroll taxes you actually have paid. This may sound rather shocking to some people. Instead, an inflation adjustment (index) is applied to each year's earnings. This tends to work in your benefit, since a strong earnings year recorded 30 years ago will be adjusted upward to reflect its value in today's dollars. Once all of these past 35 years have been adjusted, the Average Indexed Monthly Earnings (AIME) is calculated.

From there, three so-called "bend points" are applied. These consist of a dollar amount that adjusts with inflation and a set percentage that does not change. For 2018, this means $90 \%$ of the first $\$ 895$ of AIME, plus $32 \%$ of the next $\$ 4,502$ and then only $15 \%$ of any AIME over $\$ 5,397$. Add these three values together to come up with what is called your Primary Insurance Amount (PIA). Your PIA equals your monthly Social Security benefit at your Full Retirement Age (FRA) ${ }^{5}$.

While the preceding may be new to most people (and pretty technical), most folks do seem to at least have some vague notion of what their FRA is. For those born in 1960 or later, it is age 67. If born between 1943-1954 (inclusive), it is 66. In between 1955-1959, there is a forward sliding scale, in months, incrementing from age 66. The long ago, original FRA was 65 . The SSA has an easy online calculator in case there is any confusion on this issue ${ }^{6}$.

Let's step aside at this point and highlight the following as an important and oftentimes overlooked, financial planning activity. Your earnings record does matter. The SSA's accuracy in recording the exact amount of "Social Security Earnings" (i.e. wages and salary income for which Social Security payroll tax has been paid) will impact how much your future benefit will be. Anyone who has not already done so, should spend the time to set up their own personal account at: ssa.gov/myaccount/


Once this has been done, you will be able to generate a report that is an exact copy of the kind that the SSA used to send out to everyone, annually, through the mail. In it, you will see your earnings record, year by year. While it may be tedious, going through this record while you're still maintaining your income tax returns and payroll information, is valuable. Any discrepancies that short change you should be reported to your local SSA office as soon as possible.

Assuming your earnings record is accurate, there is one portion of this report which carries the most significance: "Your Estimated Benefits". These are the projections of what your future monthly benefits will be, at various assumed ages. It looks something like the following:

Your Estimated Benefits

| *Retirement | You have earned enough credits to qualify for benefits. At your current earnings rate, if you continue working until... |  |  |
| :---: | :---: | :---: | :---: |
|  | your full retirement age ( 66 and 10 months), your payment would be about. | \$ | 2,601 a month |
|  | age 70, your payment would be about...................... | \$ | 3,260 a month |
|  | age 62 , your payment would be about. | \$ | 1,853 a month |
| *Disability | You have earned enough credits to qualify for benefits. If you became disabled right now your payment would be about. | \$ | 2,707 a month |
| *Family | If you get retirement or disability benefits, your spouse and children also may qualify for benefits. |  |  |
| *Survivors | You have earned enough credits for your family to receive survivors benefits. If you die this year, certain members of your family may qualify for the following benefits: |  |  |
|  | Your child. | \$ | 2,030 a month |
|  | Your spouse who is caring for your child |  | 2,030 a month |
|  | Your spouse, if benefits start at full retirement age |  | 2,707 a month |
|  | Total family benefits cannot be more than. |  | 4,738 a month |
|  | Your spouse or minor child may be eligible for a special one-time death benefit of \$255. |  |  |

Once you reach your FRA, you are entitled to your PIA, which in the above example is $\$ 2,601$ per month. Most persons are aware that there is a "penalty" for taking benefits earlier than FRA, as early as age 62. Here we see that the benefit would be cut down to just $\$ 1,853$ at age 62 . On the other hand, delayed retirement credits (DRCs) are awarded
to anyone who resists the temptation to claim, up until age 70. The age 70 monthly benefit shown here is a rather healthy $\$ 3,260$. The difference between the earliest and "latest" claiming age ( 62 and 70) amounts, is a whopping 76\%. This range can vary slightly, depending upon your exact age and the assumptions used by the SSA in formulating their future estimates.

Currently, taking benefits early (prior to FRA), results in a reduction of $5 / 9 \%$ per month for the first 36 months and $5 / 12 \%$ per month for every month after the first $36^{7}$. So if a person whose FRA happens to be 67 , takes benefits at age 62, the reduction is a cool $30 \%$. This means that their monthly benefit will only be $70 \%$ of the full PIA amount. Furthermore, this reduction is permanent.

Similarly, delaying benefits beyond FRA earns you more than brownie points. You get delayed retirement credits (DRCs). The value of DRCs is $2 / 3 \%$ per month ${ }^{8}$. So if a person has an FRA of 66 and delays taking benefits for the full four years until age 70, the DRCs total $32 \%$. There is no point to delaying beyond age 70 , since DRCs stop. This person's monthly benefit is then $132 \%$ of the full PIA amount.

The full range of outcomes for a person born in 1954 (whose FRA is 66) and whose PIA is $\$ 2,000$, is a monthly benefit of $\$ 1,500$ at age 62 versus $\$ 2,640$ at age 70 . As we stated above, this is an eye popping $76 \%$.

The person claiming at age 62 does have a:

$$
\$ 1,500 \text { X } 8 \text { years X } 12 \text { months per year }=\$ 144,000 \text { HEAD START @ age } 62
$$

If we tried to use simple break-even analysis, we could say that:

$$
\begin{gathered}
\$ 144,000 \text { (age } 62 \text { HEAD START) } \\
\text { divided by } \\
(\$ 2,640 \text { minus } \$ 1,500 @ \text { age } 70=\$ 1,140 \text { BONUS FOR WAITING) } \\
=127 \text { months (rounded up) } \Longrightarrow \text { about } 10.5 \text { years to catch up }
\end{gathered}
$$

The SSA will rightfully claim that regardless of when you take your benefits, there is an actuarial equivalence (earlier versus middle versus later). In other words, it does not really matter. But this reasoning applies more accurately to the population as a whole, not to individuals.

> Some people will benefit by claiming earlier. But many more will do better by delaying, even all the way to age 70. Once you make your decision to claim, you typically have no more than 12 months to change your mind and withdraw your

## application. With such an important decision to make, it is surprising that so many claim at age 62, simply because this is the earliest possible date.

How about claiming and working? Starting from age 62 and continuing until FRA, there is a penalty for earning beyond a stated amount. For 2018, this is $\$ 17,040$. The penalty is rather harsh: a deduction of one dollar in benefits for every two dollars of earnings beyond the threshold. There are many more rules and technicalities to these penalties than we can cover here. This information is available from the SSA Website ${ }^{9}$.

Filing for benefits before full retirement age, while still working in your primary occupation is rarely, if ever, a sound strategy. Oftentimes, people who retire and claim their benefits at this point, later find that they need to return to the workforce in order to make ends meet. This demonstrates, unfortunately, a lack of planning.

Is there a better way? Through pure analysis, there definitely is. Let's begin by outlining the sound reasons for claiming Social Security benefits at age 62. Then we'll describe our recommended methodology, which we call the "Year by Year Checkup". This simple analysis could be performed by you alone, or in an annual review with a trusted adviser. It results in a simple "Go" (claim NOW) or "No-Go" (delay) decision. By age 70, either you would have claimed earlier or you now "Go" and claim by default, since there is no further advantage to delaying.

The valid reasons to claim your Social Security benefits at age 62 include:

1. You are no longer able to work in meaningfully compensated employment and must retire. You simply do not have the financial resources to wait. You have no other choice, since these benefits make the difference between surviving and living in poverty. By all means, go ahead. This is not even a close call.
2. You are terminally or chronically ill, where you have been given a life expectancy assessment of five to ten years (or less). Again, this is not a close call. Please go ahead and do what you must.
3. You have a family history of short life expectancies, where parents and siblings have passed away at young ages. You may feel that even if you are relatively healthy at 62 , the clock is ticking for you as well. While this is a somewhat tougher call to advise on, if these facts are present and the psychological gain of seeing these benefits now is significant to you, we can agree with your decision. However, you would be well advised to have an even stricter budget and spending plan. If ten years elapse and you're still alive and feeling fine, congratulations to you! But as a result, you may have now passed the life fitness test, but flunked the financial fitness test.
4. You are already retired. You have a fully developed and rather strict budget. You have a financial plan in place and sufficient assets in multiple investment
portfolios. You claim Social Security benefits only to replace the exact same number of dollars that would have been taken out of your investment portfolio. So for example, by receiving $\$ 1,500$ monthly, you now decrease a distribution from your portfolios by the exact same dollar amount, on a tax equivalent basis. The increase in Social Security benefits of around 8\%, along with a cost of living adjustment in addition to that, is forgone in favor of a potentially higher investment return. This can work over the long term, but it would not be a certainty in any specific eight year rolling period (from 62 to 70). So while there is risk in this approach, we also see some merit for those who can be extremely well disciplined.

The Year by Year Checkup approach starts out at age 62 and is repeated annually, until we reach 70. We ask ourselves a series of questions, some of which require that a little further analysis or fact checking is done, in order to answer them fully. If we can answer any of the following affirmatively and unreservedly "Yes", then we have a "Go" decision and should claim our benefits now. If none of these can be answered affirmatively, we have a "No-Go" decision and should delay our benefits for one more year. We simply repeat the process in one year's time.

1. Has something changed in our budget that forces us to need these benefits now and that we cannot cut something else out, or seek additional income?
2. Has something changed in our income tax situation that means we are chronically short on funds and as in (1), we cannot seek additional income or cut other expenses?
3. If we are already retired anyway, has something changed with our other sources of income, such that we simply cannot cover the resulting budget shortfall?
4. Has there been a recent major stock market correction or bear market? Have we analyzed and determined that our investment portfolio(s) will be depleted too quickly, unless we claim benefits now?
5. Has something changed with the Social Security benefit formula or is something expected to change within the next twelve months, which would make it no longer advantageous to wait? (Since many people claim Social Security benefits so early, thinking that it will be taken away or otherwise diminished for them, they seem to fail to grasp that such changes would need to pass through a legislative process. This will not happen overnight. There will be warning for those who are even moderately "plugged in", or periodically consulting an adviser.)

If you simply cannot answer at least one of these questions with a $100 \%$ affirmative response, what would be the harm of then simply waiting one single year and analyzing again? Delay your benefit and watch it grow. Check out what the cost of living adjustment will be for the year you waited. That would be sort of like the icing on the
cake. Log in to the SSA at least once a year, verify your data and run your annual statement again.

Ultimately, the value of delaying Social Security is in providing you a form of insurance against living a very long life. I won't be betting against you, that's for sure. How about you? Are you betting against yourself?

## Do Not Forsake Me, Oh My Darling Domicile...What to Consider Before Considering a Reverse Mortgage

I happen to like the concept of a reverse mortgage, otherwise known as a Home Equity Conversion Mortgage (HECM). When it is the right tool for the job it truly stands out. Liquifying small amounts of home equity during various stages of retirement, in order to cushion a core investment portfolio against the dreaded "sequence of returns risk" problem, is a prime example of the Castling principle at work.

So the purpose of this discussion is not to castigate the reverse mortgage concept. But we are critical of salespeople and those holding themselves out as being "advisors", who have a product to sell and then try to force fit it into situations where it is not the best solution.

Instead, our goal here is to get back to financial planning basics in retirement. There is a major decision to be made before considering a reverse mortgage. Do you know what it is? Do you expect that any person with a financial interest in selling you a reverse mortgage is going to provide you the purely objective advice you need at this point?

The mere ownership of almost any single family home, along with sufficient equity and having surpassed the age 62 requirement, will qualify you for a reverse mortgage. But will this be the best course of action for you?

Have you considered the aging in place question and what your optimal form of residence will be? Or have you taken the default position that your present family home will suit you just fine throughout your retirement?

These are not trick questions. Most all of the background for answering them will come from your input, anyway. But pure analysis is almost always helpful. Someone telling you what you need to know, not necessarily what you want to hear, would be truly value added.

Being an experienced investor and investment adviser (including real estate), has given me a front-line view of how people arrive at the decision that their single family home, however lovely, is simply no longer the ideal place as their residence in retirement.

Consider the following:

1. As homes age, exterior maintenance, repair and replacement projects become more frequent. Future costs can be uncertain to estimate. As the owners age, they may be less inclined to deal with these issues. But deferring maintenance can lead
to even higher repair costs down the road. Not only very elderly owners may be left unaware of certain exterior conditions that are deteriorating. Can we count on neighbors telling us about missing shingles on our roof, simply because it's more visible to them, while we seem to not be paying as much attention to those things nowadays?
2. Stairs in multilevel single family homes represent one of the biggest causes of falls. Stair lifts are one answer, but represent a significant cost. If the owners needed to install one to access their bedroom on the second floor, would they need another to access their basement, especially during storms or power outages?
3. The overall interior finishes in their current home may be older and less friendly to aging in place, unless upgrades were to be done.
4. Utility costs and property taxes are ever present. Can empty nesters justify to themselves the ongoing cost to maintain a 3,000 square foot single family home, versus downsizing to an 1,800 square foot condo?
5. The situation is magnified even more when we see a surviving spouse analyze her options. Is the family home relatively isolated on their street? How difficult is it to simply go out and collect the mail on a daily basis? Would anyone notice if she fell or otherwise needed urgent assistance?

I never try to push anyone out of the home that they love. But does their home still love them back, especially given the reality of their present life circumstances? This question needs thoughtful reflection (and analysis) before the reverse mortgage salesperson makes his pitch.

Since things almost always seem clearer once we work through an example, let's assume we have a married couple, each is age 65 , who are now ready to retire. They own their single family home free and clear, having just paid off their mortgage. The house has an estimated value of $\$ 400,000$.

Furthermore, they have decided to claim their Social Security benefits now (along with Medicare with a Medicare Supplemental Plan), as well as to begin their pensions. As happened to many others, their defined benefit pensions were frozen some time ago. The accrued benefits do not add up to as much as they had hoped for: only about $\$ 2,000$ per month for them both. Social Security for both adds another $\$ 3,000$. After having created a retirement budget with the help of their financial planner, they know that they only need an additional $\$ 1,000$ per month, as a distribution from their $401(\mathrm{k}) \mathrm{s}$, to meet their needs in their first year of retirement. So in total, this means $\$ 6,000$ per month or $\$ 72,000$ for the year.

Their $\$ 500,000$ total balance in $401(\mathrm{k}) \mathrm{s}$ and IRAs needs to last for their remaining lifetimes. They are concerned over their balances getting depleted too quickly during
corrections and bear markets. But they are also concerned over handing over a large chunk of their funds to an insurance company, in exchange for a fixed annuity that, while guaranteed, has no cost of living adjustment.

Perhaps their biggest concern is the fact that they depleted most of their liquid savings, paying off medical bills, purchasing a replacement vehicle and funding their daughter's wedding last year. Their previous six figure stash of cash is now down to only $\$ 19,000$.

They have heard about a reverse mortgage (HECM) as a way to rebuild their liquid savings during retirement. They are informed about a good and unbiased Web based HECM calculator, created by Professor Wade Pfau. They use it by inputting their current ages and home's estimated value. Furthermore, they assume that all upfront costs of the HECM will be financed by it (i.e. nothing out of pocket). This adds up to a rather noninsignificant $\$ 10,500$. The resulting net available credit line from their hypothetical HECM would be: $\$ 156,300{ }^{10}$.

By using the Castling principle, they feel confident that this level of home equity which can be "liquified", could cushion against temporary drops in their investment portfolio's value. This can safeguard their retirement. However, they also believe that some of this equity would also be necessary to repair, replace, maintain, update and otherwise modify their existing home, to allow them to age in place. The big unknowns are exactly how much and when. So they view real liquid savings as potentially being well short of $\$ 150 \mathrm{~K}$.

Their financial planner makes a suggestion at this point. Let's analyze their other option, prior to scheduling a meeting with a reverse mortgage salesperson. What about downsizing? They also realize that this won't come cheaply. They look at very desirable condominium communities, located close to their existing neighborhood that they like so much. After checking a couple of these developments, on their third trip they find that this third association has the most modern building, a heated garage, spacious lobby and best of all, a very modern and open floor plan with all the latest finishes.

A unit in this condo building which has sufficient space to fit and properly display their existing furniture, is not exactly a bargain (in their minds). The cost will be $\$ 300,000$. But for this, there are no stairs or basement to climb. Instead, they find what they are looking for: an elevator, living on one level, a heated garage and a short walk to the lobby to pick up mail or packages.

In later discussions with their planner, the analysis shows that closing costs of about $10 \%$ of their current home's value would be needed to: close on the sale and subsequent
purchase and then move. So this means netting $\$ 60,000$ ( $\$ 400,000$ minus $\$ 40,000$ minus $\$ 300,000$ ).

One more thing their financial planner adds to the discussion, "How about getting a small mortgage on the condo unit?"
"What did you say?", they ask somewhat incredulously. "You spent the last number of years harping on us to pay down and pay off our mortgage by retirement. Now that we're actually retiring, you want us to go back into debt again?".

This is where their adviser begins to explain the optionality of their situation. They paid down their old mortgage on their single family residence as a form of savings, achieving better effective returns than with a bank CD (during the time period in question). They learned to live on a budget so that once retired, with a paid off mortgage, their need for income was reduced significantly. They now have multiple options open to them, including HECM, HELOC, or downsizing.

The main point to keep in mind is that taking out a reverse mortgage (HECM) is still the same as taking out new debt. While intrinsically useful in that the debt does not require any repayment as long as a borrower or non-borrower spouse is living in the home, it does come with high upfront costs and a variable rate of interest (for the line of credit). If there is any real need to vacate the home in the next 5-10 years, the HECM may not be worth the cost.
[ A short diversion is necessary here. By contrast, a home equity line of credit (HELOC) can be obtained for essentially zero upfront costs and only a very nominal annual fee (sometimes even without this fee). Yes, a HELOC does require monthly payments and carries a variable interest rate, but the minimum payment is interest only for typically the first ten years (the draw period). Usually, an automatic payment can be scheduled from a checking account linked to the HELOC. So for example, if $\$ 10,000$ is needed, $\$ 13,000$ could be withdrawn and then $\$ 3,000$ placed into the checking account which will make the payments for a number of years (perhaps around 5 years or more if the interest rate averages under 6\%). While not a perfect solution, if you are unsure of your long term future in your home, a HELOC is a much cheaper solution than a HECM.]

Back to our downsizing couple. Their adviser continues to explain how the HECM may not be possible for their HOA (homeowner association), since the HOA would need to be FHA approved. He checks and verifies that indeed, their favored condo building would not qualify for a HECM, at least not yet. But just because the HECM option is not available, could another even more basic choice be staring them in the face?

He suggests a small mortgage with a low LTV (loan to value ratio) of 50\%. Most lenders really like these kind of loans, because the borrow has significant "skin in the game". They find a lender with a current rate on a 30 year fixed loan of $4.75 \%$ with zero points.
"Thirty years? We're probably not going to be around that long!"
But the fact that the interest rate is fixed and applies to only the relatively small amount of $\$ 150,000$, makes this an attractive option compared to the variable rate HECM of (surprise, surprise) about the same amount $(\$ 156,300)$.

The monthly mortgage payment would be only about $\$ 782$. This could very easily be covered by one of their pensions checks. A loan officer who evaluates their income streams, including Social Security, should have no issues in passing the loan application to their underwriting department, assuming the borrowers have kept up their credit scores. The lack of W-2 wage and salary income in the future is not the issue it otherwise would be, since their main income streams are assured.

Here is an additional kicker. Their monthly HOA assessment for their condo unit is a whopping $\$ 600$ ! They would have some nice inclusions and amenities, though. This includes heat, water, sewer, garbage, basic cable TV and high speed Internet access. Exterior maintenance and landscaping are, of course, part of this package. Hopefully, a portion of the monthly HOA fee is going into the association's reserve fund (this is also something that should be analyzed prior to making any HOA purchase decision).

The bigger point we are making here is that in the context of modern day living costs and $\$ 600$ HOA fees, a $\$ 782$ mortgage payment seems not only reasonable, but downright puny. The sum total of these two, along with their new property tax bill, would still be covered by their $\$ 2,000$ monthly pensions, with room to spare.

Please keep in mind that if they remain in their single family home, their property taxes remain higher, utilities add up to more than the condo unit and, especially, their future costs for repair, replacement, exterior maintenance and landscaping will all eat into that same $\$ 2,000$ monthly pension.

What would they have to show for it (downsizing)? How about $\$ 210,000$ in liquid savings ( $\$ 400,000$ sale minus $\$ 40,000$ closing/moving minus $\$ 150,000$ down payment)! This is a much bigger increase in liquid savings than with the HECM, while also locking in a fixed rate, while the HECM credit line rate is variable.

So will our couple choose to downsize, or will they stay in their home and get a reverse mortgage? Love it or list it? No, this isn't reality TV and sorry, we're not telling.

Our purpose here was not to disparage the HECM, but to emphasize that these questions need to be asked, analyzed and answered, before making the decision to get a reverse mortgage. Don't expect the HECM salesperson to encourage you not to go ahead with one. Likewise, don't expect a third party, using a one hour counseling session (that you sign up for prior to getting the HECM), to go through a real analysis of your choices, the underlying costs and deriving what would be in your own best interests.

## The Longevity Portfolio Versus the Longevity Annuity.... If You Can't Take it With You, Can You Still Leave it. Behind?

By now, I hope that our readers and clients realize that there is no such thing as a silver bullet, golden goose, unbreakable, unshakeable, one-size-fits-all, universal financial product, asset or strategy. There are many appropriate tools, products, ideas and methods. The question is whether any one of them (or combination, as with our Castling principle) is the best one for a given set of circumstances. This is where pure analysis comes into its own. And without complete independence, the idea of complete objectivity goes out the window.

Nearing or achieving retirement due to a successful accumulation plan is an accomplishment in itself. If this is your situation right now, feel free to take a bow. But retirement, in our view, should be partitioned into multiple, shorter, timelines. This allows us to break a large problem into several smaller ones, allowing for easier analysis and less risky solutions. The need to generate income to pay the bills tomorrow, next week, or next year, is not the same as providing for what may happen 20 years from now. We can consider these as separate issues.

We are also able to apply one hugely beneficial principle:
With time horizon diversification, we can split one investment portfolio into at least two smaller, unequal ones. The smallest could still be invested for growth over the long term, even for someone entering retirement now, since it will not be needed for a certain number of years. The other portfolio(s) resembles the typical case for a risk averse, retired individual or couple.

Volatility can make us feel shell shocked. But when we contain it largely to the longerterm portfolio, that should make us feel much calmer. Or for some of us, it doesn't. This means that those folks would be better served to seek even more certainty and then deal with whatever limitations this certainty brings with it. Figuring this out for yourself is vital and is related to our principle of the three dimensions of risk tolerance: your willingness to take risk, your ability to take risk and your need to take risk.

For example, a 65 year old (each) couple retiring this year, may like to plan for a 30 or 35 year period. This is quite a long time. Will their savings and investments last? Or if they buy an annuity that is certain (i.e. fixed), will they get hit with inflation and interest rate risk, reducing that guaranteed monthly check into a cruel joke?

Since this discussion is focusing on the back half of their retirement, let's assume that our couple have planned the first half pretty nicely. They have an investment portfolio with lower volatility (and somewhat lower returns), an income annuity for a defined period of time, Social Security benefits and one small pension. They feel quite confident in maintaining their present standard of living for the next 15 years, from age 65 until age 80.

This is where our story really begins. They are still age 65 , but planning about what to do if they live well beyond 80 . Let's call this the back half of retirement. They decide that they can only devote $\$ 100,000$, segregated from their other investments and savings, to plan for those years beyond their $80^{\text {th }}$ birthdays.

Whatever they decide, they are willing to allow a strategy to grow the $\$ 100,000$ from their present age of 65 , only for the next 15 years, until age 80 . At that point, they expect to live off the income that this solution can provide.

One major solution is called a deferred fixed annuity or longevity annuity (LA). This is a contract with an insurance company. In exchange for a single upfront payment (the premium), the couple become joint annuitants. The accumulation period lasts from the time of this premium payment until the time that the LA starts paying income back. Technically speaking, multiple premium payments could be made during the accumulation period. But in this example, we are only considering the case of a single lump-sum premium paid to the insurance company upfront, which gives it the maximum time to accumulate.

The LA will pay them a certain and fixed monthly amount, beginning at age 80 , for the rest of their lives. At the death of the first person, the survivor will receive the exact same amount monthly, until her death. If they should both die before the annuity has paid at least an amount equal to their initial premium, then a so-called cash refund of the difference will be paid by the insurance company to their beneficiary or to their estate.

These last couple features cost money to implement, since the highest payout for any annuity will always be based upon a single life (payments stopping at death). However, since both could die shortly after purchasing an annuity, we reject this as constituting an unacceptable risk. Also, to properly compare this alternative with a non-annuity solution, we need something that will pay out at least as much as our folks paid in. That is why this is called the "cash refund" feature.

To get an accurate monthly payment amount, we used the ImmediateAnnuities.com Website, plugged in the details above and selected the highest quote supplied, without regard to which insurance company was providing it푠. In a real world situation, we may
want to give at least some attention to which insurance company we choose, since we will be depending upon it for a long time. (This is the first of several slight biases we are making in favor of the annuity solution, in order for our comparison to the non-annuity solution to be even clearer.)

It is interesting to note that in late May, 2018, the best monthly payout for joint lives with cash refund was $\$ 1,293$. In late April, it was $\$ 1,266^{\frac{12}{}}$. While this may be only a $\$ 27$ difference and insurance companies update their values constantly, the real culprit is the bond market and bond yield fluctuations. If the long term path of interest rates is upward, the annuitization of large lump-sums seems questionable. In any event, we go with the higher and more recent value, which will now be plugged into the non-annuity solution.

In order to focus our comparison on the differences between the proposed two solutions, we also assume that the income tax situation between them is roughly equal. Either we use pre-tax money for both (such as both being funded from IRAs), or after-tax funds for both. Long term capital gains tax rates on investment portfolios funded with after tax money would be more attractive than the ordinary income tax rates on annuity gains received. (Another slight bias in favor of the annuity solution.)

We call the alternative to the longevity annuity, our longevity portfolio (LP). It is simply another investment portfolio whose time horizon is different from our core portfolio. So even our 65 year old couple can envision that this portfolio would not be touched until they reach the age of 80 . Therefore, it has a 15 year time horizon, so we can use time horizon diversification effectively.

To make things easier to manage, our couple has segregated the same $\$ 100,000$ for the LP, in a separate account. For the next 15 years, they will not make withdrawals from this account unless mandated by law, such as required minimum distributions (RMDs) from an IRA. But if RMDs are required, the distributions will simply be added back to a new taxable brokerage account, set up to be part of the LP. Either the entire sum, or the entire sum less income taxes, will still be reinvested for the same time horizon.

Roth IRAs make especially good vehicles for longevity portfolios, since no RMDs are ever required and the eventual qualified distributions are income tax free. However, for purposes of our comparison to the longevity annuity, we are not considering Roths in this example. (Another slight bias in favor of the annuity solution.)

The only other activity occurring inside the LP during this 15 year period, is a once per year re-balancing, back to a pre-determined asset allocation. Our couple either does this on their own or with the help of their adviser.

Another low cost simplification here would be to use one target date fund (TDF) with a 15 year time horizon, as the entire LP. As time goes on, the asset allocation within this fund will automatically re-balance and follow a glide path established by the fund family. No external re-balancing would then be needed. However, different fund families approach TDFs very differently, so this would need to be further analyzed.

If creating your own LP or with the help of your adviser, what should your asset allocation be? A good starting point would be to consider your three dimensions of risk tolerance, mentioned above. But for this discussion, we assume a very "scared-y-cat" scenario. Even though we have a 15 year time horizon before needing the first dollar from the LP, we assume we must have a very low volatility portfolio. (Another slight bias in favor of the annuity solution.)

For this reason, we use our very own Castling Defensive Portfolio (CDP). Its allocation to the stock market is only about $31 \%$. But while we have selected real investment funds and have a hypothetical track record dating back to 2000 for the CDP, we went to our proprietary asset allocation database, to perform this analysis. We want to look at asset class data, since this predates specific mutual funds or ETFs. We have data stretching back to 1970 through the present. We also prefer to look at rolling periods of time (five years and multiples of five years), instead of individual months or calendar years.

Consistency across rolling periods is something we find to be extremely important in constructing a core investment portfolio. For a longevity portfolio, we should have more leeway, since we know the time horizon we are dealing with and will not be taking distributions until then (except for the aforementioned RMDs, if necessary; but even then the distributions could be reinvested in the same asset classes, just on an after tax basis).

1970 through 2017 covers many market cycles in the stock market and at least a couple in the bond market. This has truly been the modern age for the US economy, since the last tie to the gold standard was severed back in 1971. During this period, we have seen high inflation, low inflation and a brief period of deflation. Stock market booms, busts and crashes have occurred. Furthermore, data is not available for all asset classes on a uniform basis prior to 1970. This makes comparisons among some assets less feasible, before this period.

When we look at the raw asset class data for our LP across all 15 year rolling periods from 1970-2017, we also subtract $0.2 \%$ to represent the expenses incurred by actual investment vehicles (eg. mutual funds have expense ratios and our real-life CDP happens to have an expense ratio of $0.19 \%$ ). The first table below shows the asset class returns for every 15 year rolling period calculated.

We picked the worst performing period: 2002 through 2016. Why? To demonstrate a point which will become clearer, below. Now does this mean that you are assured of never facing a return lower than $5.7 \%$ (the worst reduced by $0.2 \%$ to account for actual fund expenses)? Unfortunately, no. However, the likelihood of something far worse than this happening over a future 15 year period is much lower in probability than in a 5 or even a 10 year period. Alternatively, our hypothesis is strengthened if you go out to look at 20 or 25 year rolling periods, but that would defeat the objective of our couple in this example. (This is yet another bias in favor of the annuity solution.)

A valid criticism can also be: why not pick a higher performance investment portfolio with more stocks, instead of one so tied to bond market returns (especially in a low interest rate environment)? Because we are assuming that our couple has the lowest overall tolerance for risk still consistent with being investors. Any lower on the "willingness to take risk" scale and they would be $100 \%$ behind the annuity solution from the outset. It would then be game over and no need to do this analysis.

The performance of the CDP at the asset class level during all 5 year rolling periods (from 1970 through 2017), shows that there was not a single such period in which it lost money. A hypothetical $+3 \%$ annualized return in the 1970-1974 period was the worst case seen. This is what we mean by consistency.

Based upon the three dimensions of risk tolerance, it is not only feasible, but likely, that another investor(s) could easily pick something more aggressive and very likely, achieve a superior result. (This is yet another bias in favor of the annuity solution.)

To continue with our analysis, having selected this $5.7 \%$ analyzed return as our base number, we compute the value of the $\$ 100,000 \mathrm{LP}$ in 15 years. A basic financial function calculator gives us the result: $\$ 229,681$. To clarify, this is the accumulated sum at the point that our couple reaches age 80 , given the above assumptions.

Our next set of assumptions are based on the idea that the LP needs to be made safe at this point. No more stock or bond market fluctuations. The entire balance is moved (without any income tax implication computed at this point) to a laddered portfolio of FDIC insured bank certificates of deposit (CDs) and savings accounts. We assume an overall annual yield of 1.50\%. Even during the 2015-2016 lows in the Federal Funds rate and the 10 year US Treasury note yield, it was still relatively easy to find CDs that paid this level of interest, or even more. (Yet another bias in favor of the annuity solution.)

As an aside, a "laddered portfolio" means that there are multiple CDs purchased with varying maturities, as though going up the steps of a ladder. Longer maturities result in higher yields. This may mean that in addition to an online savings account, our couple
will own 6 month, 1 year, 18 month, 24 month and 5 year CDs. The exact maturities can also depend upon what a given bank has available. A few can customize the number of months to whatever a saver needs. After one year has elapsed, the 5 year CD becomes a 4 year, the 24 month becomes a 1 year, etc. Most money that is not needed in the current year can then be plowed back into a new 5 year CD. This is the CD laddering cycle. Increases in interest rates are captured with every new CD that is purchased.

The second table, below, documents every important assumption and action being taken. Please keep in mind that the longevity annuity was going to pay $\$ 1,293$ monthly, starting at age 80 . So our couple takes a distribution of twelve times that, or $\$ 15,516$, at the start of "year one", corresponding to just turning 80. The LP now consists of a savings account and a set of CDs. The $\$ 15 \mathrm{~K}$ is pulled from the savings account in early January and represents the entire sum they are expecting for the first year. This means that the remainder of their LP is able to earn the aforementioned $1.50 \%$ yield for the rest of the year.

And so it goes. Each year, our couple makes an early January withdrawal of exactly $\$ 15,516$, matching what the LA payment would have been, had it been chosen when they were 65. All remaining funds are assumed to be earning a constant $1.50 \%$. (Another slight bias in favor of the annuity solution, since the LP is paying out all its monies for the year in early January, not monthly, as the LA does.)

As the second table shows, the LP runs out of money after about 16.6 years. Our couple would now be well past their $96^{\text {th }}$ birthday. So back at the beginning (age 65), what can we conclude from our analysis?

1. If you are pretty certain that at least one of you will live a very long time and have any lack of confidence in the concept of a longevity portfolio (LP), the longevity annuity (LA) is right for you.
2. If you have never been an investor and have no willingness to take any market risk of any kind, then the LA is right for you.
3. If you would like to disregard the effects of inflation and do not mind dealing with a fixed payment amount, the LA is right for you.
4. If your focus is more on a spouse's or other beneficiary's inability to not only manage money, but to even handle money (and therefore they cannot be entrusted with an LP), then the LA is right for you.
5. If you doubt whether you can trust yourself with an LP, or ask for a slight amount of help from an adviser, then the LA is right for you.
6. Pay attention to the interest rate/yield cycle. As yields increase, we have already seen the payout rates from these annuity products go up. So why lock up a large lump sum, in order to secure one given payment amount in the distant future? If
the LA is right for you, why not have several of them? Dollar cost average into the LA, to take advantage of a long interest rate cycle, especially if rates are headed up.
7. We gave a handicap to the LA solution at many points in our analysis. Even then, the LA could beat the LP only if the couple live significantly beyond their life expectancies. Moreover, if the actual return of the LP was slightly higher, say $6.7 \%$ annualized instead of $5.7 \%$, the accumulated amount would be $\$ 264,525$. This would then last until age 99.5 . Does that sound convincing enough?
8. If the LP performs much better than the scenario depicted here, the opportunity to take slightly increasing withdrawals (eg. inflation adjustments) becomes a real possibility. This is simply not the case with the LA, since it is fixed by definition.
9. If you can't take it with you, can you leave it behind? The annuity solution ultimately runs out or provides only a partial refund (based on the original $\$ 100,000$ premium paid). The longevity portfolio, if it has a balance at death, can be left to your beneficiaries. If our couple dies at age 75 and has $\$ 150,000$ in their LP, this amount becomes part of their estate. With the LA, dieing at the same age results in the estate receiving only the original $\$ 100,000$ back.

Ultimately, the choice of LP or LA rests more with understanding yourself than with understanding financial markets. Do not buy into speculation or fear mongering. Even if you choose the longevity annuity, you can still buy in slowly and gradually, over time. Seek higher monthly payouts as you go along. This may not make the commission based product salesperson (CBPS) happy, but it could make your twilight years less unhappy!

| Start | Stop | Return |
| :---: | :---: | :---: |
| 1970 | 1984 | $10.3 \%$ |
| 1971 | 1985 | $11.2 \%$ |
| 1972 | 1986 | $11.5 \%$ |
| 1973 | 1987 | $11.2 \%$ |
| 1974 | 1988 | $12.2 \%$ |
| 1975 | 1989 | $13.2 \%$ |
| 1976 | 1990 | $12.0 \%$ |
| 1977 | 1991 | $12.0 \%$ |
| 1978 | 1992 | $12.0 \%$ |
| 1979 | 1993 | $12.2 \%$ |
| 1980 | 1994 | $11.2 \%$ |
| 1981 | 1995 | $11.5 \%$ |
| 1982 | 1996 | $11.4 \%$ |
| 1983 | 1997 | $10.7 \%$ |
| 1984 | 1998 | $10.0 \%$ |
| 1985 | 1999 | $9.8 \%$ |
| 1986 | 2000 | $9.0 \%$ |
| 1987 | 2001 | $8.5 \%$ |
| 1988 | 2002 | $8.6 \%$ |
| 1989 | 2003 | $8.9 \%$ |
| 1990 | 2004 | $8.7 \%$ |
| 1991 | 2005 | $9.0 \%$ |
| 1992 | 2006 | $8.3 \%$ |
| 1993 | 2007 | $8.0 \%$ |
| 1994 | 2008 | $6.8 \%$ |
| 1995 | 2009 | $7.3 \%$ |
| 1996 | 2010 | $6.9 \%$ |
| 1997 | 2011 | $6.7 \%$ |
| 1998 | 2012 | $6.3 \%$ |
| 1999 | 2013 | $6.5 \%$ |
| 2000 | 2014 | $6.5 \%$ |
| 2001 | 2015 | $6.0 \%$ |
| 2002 | 2016 | $5.9 \%$ |
| 2003 | 2017 | $6.1 \%$ |
|  |  |  |



| Year\# | Joint Ages | Portfolio Starting Value | Distribution Taken | Earnings on Remainder | Portfolio Ending Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 80 | \$229,681 | \$15,516 | \$3,212 | \$217,377 |
| 2 | 81 | \$217,377 | \$15,516 | \$3,028 | \$204,889 |
| 3 | 82 | \$204,889 | \$15,516 | \$2,841 | \$192,214 |
| 4 | 83 | \$192,214 | \$15,516 | \$2,650 | \$179,348 |
| 5 | 84 | \$179,348 | \$15,516 | \$2,457 | \$166,290 |
| 6 | 85 | \$166,290 | \$15,516 | \$2,262 | \$153,036 |
| 7 | 86 | \$153,036 | \$15,516 | \$2,063 | \$139,582 |
| 8 | 87 | \$139,582 | \$15,516 | \$1,861 | \$125,927 |
| 9 | 88 | \$125,927 | \$15,516 | \$1,656 | \$112,068 |
| 10 | 89 | \$112,068 | \$15,516 | \$1,448 | \$98,000 |
| 11 | 90 | \$98,000 | \$15,516 | \$1,237 | \$83,721 |
| 12 | 91 | \$83,721 | \$15,516 | \$1,023 | \$69,228 |
| 13 | 92 | \$69,228 | \$15,516 | \$806 | \$54,518 |
| 14 | 93 | \$54,518 | \$15,516 | \$585 | \$39,587 |
| 15 | 94 | \$39,587 | \$15,516 | \$361 | \$24,432 |
| 16 | 95 | \$24,432 | \$15,516 | \$134 | \$9,050 |
|  |  |  |  |  | epleted after 16.6 years. |

## References

1. All Vanguard mutual fund data used here can be found on their Personal Investors Website, by using the following link and entering search terms with the fund ticker symbols provided:
https://personal.vanguard.com/us/ RETURN
2. Data for the BlackRock iShares Gold ETF was obtained from their Website, which can be accessed via the following link and by entering the ticker symbol IAU:
https://www.ishares.com/us
RETURN
3. Kotlikoff, Laurence J., Moeller, Philip and Solman, Paul, Get What's Yours: The Revised Secrets to Maxing Out Your Social Security, Simon and Schuster, New York, NY, 2016, p. 21. This very useful book may be reviewed and purchased on Amazon, via the following link:

## https://www.amazon.com/Get-Whats-Yours-Revised-Security/dp/1501144766/ref=sr_1_1?ie=UTF8\&qid=1527297912\&sr=81\&keywords=Get+What\%27s+Yours \%3A+The + Revised + Secrets + to + Maxing + Out + Your + Social + Security RETURN

4. "Your Social Security Statement", An annual personalized statement published by the Social Security Administration (SSA) and available online through the SSA Website via the following link:
https://www.ssa.gov/
RETURN
5. "Primary Insurance Amount", Social Security Administration Website article, accessible via the following link:
https://www.ssa.gov/oact/COLA/piaformula.html RETURN
6. "Retirement Age Calculator", Social Security Administration Website, accessible via the following link:
https://www.ssa.gov/planners/retire/ageincrease.html RETURN
7. Reichenstein, William and Meyer, William, Social Security Strategies. First edition, published by the authors. p. 9. A third edition of this handy but technical book, is available and may be reviewed and purchased on Amazon, via the following link:

# https://www.amazon.com/Social-Security-Strategies-OptimizeRetirement/dp/0615457533/ref=cm_cr_arp_d_product top?ie=UTF8 RETURN 

## 8. Ibid. <br> RETURN

9. "Getting Benefits While Working", Social Security Administration Website, which can be accessed using the following link:
https://www.ssa.gov/planners/retire/whileworking.html
RETURN
10. "HECM Calculator: Net Available Line of Credit...", Retirement Researcher

Website which can be accessed using the following link:
https://retirementresearcher.com/reverse-mortgage-calculator/
RETURN
11. ImmediateAnnuities.com, "The Easy Way to Buy Your Annuity", is an excellent resource for getting quick and accurate quotes on fixed annuities of many kinds. The estimated annuity payments quoted here were found on this site by simply entering the data and picking the top payout annuity, without regard to insurance company. This Website can be accessed using the following link:
https://www.immediateannuities.com/
RETURN

## 12. Ibid.

RETURN

## How to Contact Us

Have a comment, suggestion, criticism or just plain feedback? We would like to hear from you. Please contact us by email, post, telephone or our Facebook page, as shown below.

Castling Financial Planning, Ltd. was created as a unique, hourly, fee-only, non-product selling and non-AUM investment adviser and financial planning firm, that is still very affordable for middle. America. We do not engage in conflicts of interest (and prove it), never set asset minimums and welcome all clients. Less than $1 \%$ of all financial advisers are both hourly and affordable for middle America.

Do you currently have an adviser who says he offers you "free" advice? We are so confident that we can save you money over your current adviser (based on your total costs), that if we can't. demonstrate how during our initial meeting with you, we will offer to perform your financial_ planning services in 2018 without charge, completely pro-bono.
"Free" advice is worth exactly what you paid for it. How do you separate where the sales presentation ends and the analysis begins? Castling Financial Planning, Ltd. advises everyone to stop paying for the privilege of buying a financial product, such as through commissions and sales loads. We also disagree with the concept of paying asset management fees to a \%AUM based adviser. Does he actually spend a great deal of time working on your finances? By definition, he has an obligation to provide "continuous and regular supervisory or management services" for your securities portfolio. Good luck finding a definition for "continuous", other than having this apply to the continuous fees YOU wind up paying.

We believe financial planning services should be billed for in the same way as your accountant, dentist or lawyer. You pay each based on their time expended and for their professional expertise, not a percentage of some amount.

## Registered Investment Adviser Principal:

Henry F. Glodny,
CRPS®, MBA, MS
Candidate for CFP® Certification as of November, 2016
Principal
Chartered Retirement Plans Specialist(SM)
Mailing Address and Office Location (Hours by Appointment Only): Castling Financial Planning, Ltd.
1337 Hunters Ridge East
Hoffman Estates, IL 60192
Telephone:
224.353.8567 (Office)
847.284.6647 (Mobile)

Email:
henry@YourIndependentAdviser.com
Facebook:
http://www.facebook.com/CastlingFP

## Twitter:

@CastlingFP

## How to Check Out Our Investment Adviser Registration

Point your Internet browser to the Securities and Exchange Commission (SEC) Website at:
http://www.adviserinfo.sec.gov/IAPD/Content/Search/iapd_Search.aspx
(If this page has moved or changed, go to the SEC home page at: http://www.sec.gov/ and follow the links for information on Advisers.)

Choose "Firm" and then in the Firm Name search box, enter the word: "Castling" without quotes.
Click on the Start Search button.
On the Investment Adviser Search results page, click on the Investment Adviser Firm link. Our CRD (Central Registration Depository) number is 150844.

Click on the "Illinois" link shown on the next page.
This should bring you to our complete Form ADV filing. Please take your time browsing it and comparing with your current financial adviser's filing. If they do not have their own Form ADV filing, they may be a stock broker, insurance agent or even be unregistered as an adviser. You may be somewhat surprised to compare Part 1A: Item 7 "Financial Industry Affiliations" with that of other advisers. Affiliation is really a euphemism for "conflict of interest". A completely independent adviser will not have any box checked on this page.

Lastly, we encourage you to download our Form ADV Part 2 Brochure, from the SEC Website. It is important to note that many advisers do not make this important document available until after you contact them or just before you sign an advisory agreement with them. While this behavior is technically legal, we find it to be not in the best interests of clients.

Our brochure covers our advisory services, approach to clients and also our very affordable fee schedule.

## Disclosures and Disclaimer

All investments involve risk, including risk of loss of principal.
The information provided in this report has been furnished completely free of charge and obligation, for educational purposes only. Information contained within this report should not be construed to constitute investment advice for any particular individual or group.

All calculations, analysis and assumptions used in this publication are the sole responsibility of Castling Financial Planning, Ltd. and were developed with great care. All background information used to create this report is believed to come from sources that are reliable. No warranty, whether express or implied, is given to any reader or user of this report. Castling Financial Planning, Ltd. expressly disclaims any liability resulting from the use of information contained within this publication, including incidental or consequential damages arising from the use of this publication.

Castling Financial Planning, Ltd. does not provide any investment or financial advice without performing analysis of a client's situation and goals. Anything less is, at best, a sales presentation.

Castling Financial Planning, Ltd. is an hourly, fee-only financial planning practice and investment adviser, registered in the State of Illinois.

Castling Financial Planning, Ltd. operates elsewhere, where permitted by state law, based upon the National Di Minimus provision to the Investment Advisers Act of 1940.

Castling Financial Planning, Ltd. believes strongly in the concept of independent, fact based advice, which is not tainted by conflicts of interest. As a result, we do not sell any financial products, nor seek affiliations with any broker/dealers or other financial product providers.

Castling Financial Planning, Ltd. is not in the business of providing legal or tax advice. Please consult with your attorney or qualified tax professional, for legal and tax advice specific to your personal situation.

Castling Financial Planning, Ltd. is not responsible for events beyond its control, such as wars, strikes, natural disasters, terrorist acts and market fluctuations.

This disclaimer does not seek to waive, limit or minimize any rights a client may have under applicable state or federal laws.

