It Works Until it Doesn't

A trilogy of timely investment briefs
reduced from their original versions



How some investors and institutions still engage in flawed thinking –
and how the discerning can avoid the same trap

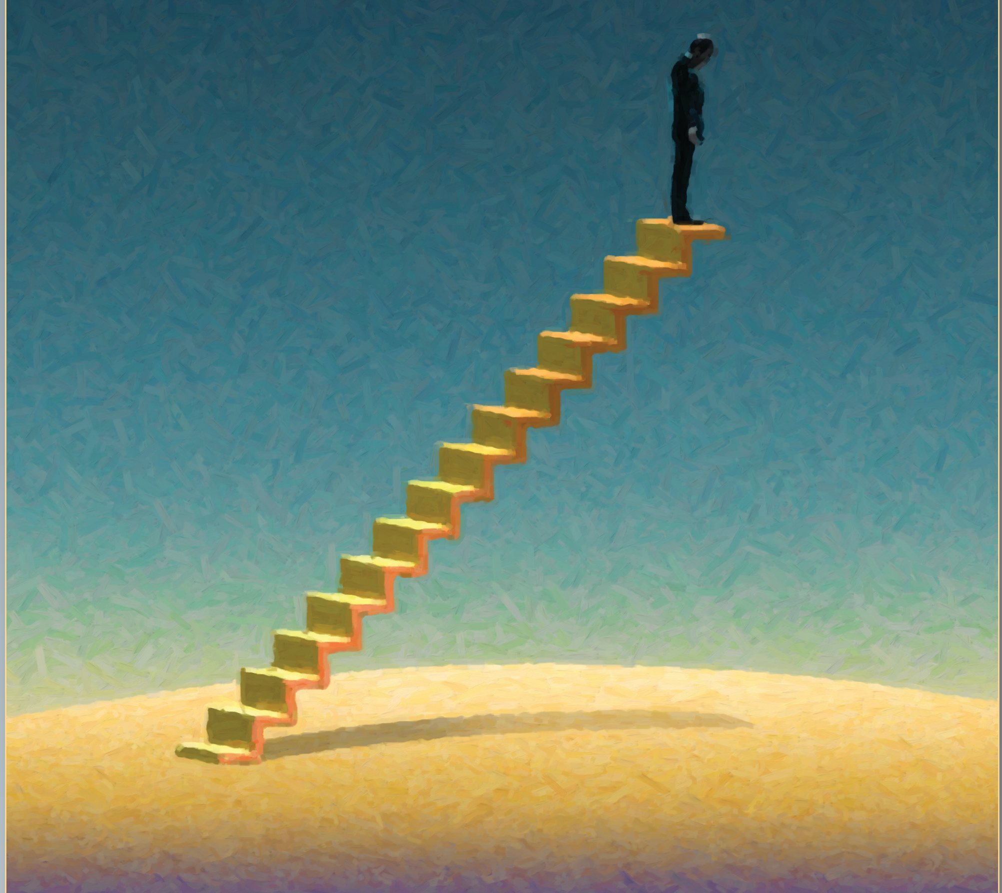
Lifting the veil on retirement planning and the many unintended consequences

The risk of taking risk – a primer

by Gregg L. Haglund

It Works Until it Doesn't

How some investors and institutions still engage in flawed thinking – and how the discerning can avoid the same trap



The following are three "briefs" of timely articles reduced from their original versions.

The intent here, is to provide you with relevant investment insight that I hope will stir in you the quiet discontent of the "status quo".

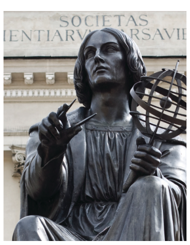
The genesis of my writings is simply the by-product of paying attention to my industry over the past 25 years, and in my world view, the inimical outcomes that can come from marching in step with those around you.

It is my wish that some part of this helps you to re-think your current approach.

The following paper outlines my study of the root causation of portfolio underperformance and the delusions associated with how some investors, institutions included, have been guided down a path quite often leading to disappointment.

I encourage you to see (perhaps in yourself) how the "business as usual" approaches to money management and allocations have in many ways been misguided. The crux of this has been the proverbial "Pie Chart" asset allocation methodology. As you will read, it can be significantly ineffectual. Fortunately, there is an alternative. I will provide you insight on an approach to have an investment portfolio that only owns "what's working now" without any bias or opinions.

It is my hope that this information and perspective seeks to empower you to make the changes, if needed, to invest your assets with conviction and the knowledge to move forward.



Copernicus was imprisoned by the Catholic Church when he refused to denounce his finding that the sun was at the center of our solar system and not the earth. It takes great strength to change "old" belief systems. Just imagine hearing the conversations for the first time that someone was going around attempting to convince anyone who would listen that the earth was actually round? What seemed acceptable and sensible at one point, with time, hindsight and further knowledge, are now just amusing anecdotes. **It works until it doesn't.**

Much of the following insight has been building for a while and the need has increased with the abject failings of the standard asset allocation models[*1] and risk/reward models[*2] used during the Global Financial Crisis which began in 2007. Institutions, foundations, pension funds, governments and individuals have been re-assessing the way in which they construct their portfolios and manage their wealth.

My journey was one of intrinsically knowing that what we've been led to believe about the basic tenants of investing wasn't working, or at least not working **well enough**.

As I have observed during 25 years of watching Financial Advisors, their clients, the chasm between market returns and client returns, and the means by which all are managed – I see an unnecessary disconnect.

As many have painfully learned, sophisticated asset allocation strategies did not always deliver the diversification and returns that were expected. As a result, investors are cognizant today that there are many different kinds of risks and interdependencies embedded in most investment portfolios, and that the base-case assumptions about the risk/return relationships and asset class pair correlations can fall grossly short of expectations, particularly in times of crisis.

This typically shows itself in the form of pie charts so often provided with the encouragement that one is receiving a "diversified" and "risk-adjusted" portfolio as it is spread out over many different types of investments. Sounds good, but this is based on historical data for return and risk.

In my opinion, this approach is sadly insufficient, and it provides a false sense that one is doing the right thing.

The standard asset allocation and diversification model did not work in the mid 90's when the S&P 500 on its own far outperformed many of the other common asset classes that are typically found in a diversified portfolio. Again the models failed in 2000-2003, and 2007-2008.

But yet we are told to hold a variety of asset classes even though they may be performing poorly, "just in case" of a negative market event with the belief that some assets will be spared, but in that "market event" everything moves down together more or less. Too much of the time, all we have accomplished by owning a basket of "diversified" assets is lower returns.

I appreciate diversified, but let's just say that we have 20% each in five different asset classes. One does great, one does okay, two do average and one does poorly. Once again we are told to keep them for sake of diversification. What grand purpose is achieved by owning underperforming assets? Why do you need to own 20% of something that clearly isn't working just to own it? Because in two years it might? Fine, if it begins to perform well in two years, I'll buy it then, and only then. How often do you find yourself justifying why you own asset classes that have been out of favor for some time, and not owning more of what's working? Think about that.

The real tragedy is this, any 10 year period with the "Pie Chart" allocation can act and look NOTHING like the risk/reward that was signed on for. As an example, consider the 10-year period from 2000-2009, it acted just the opposite of how one would expect. Bonds[*3] outperformed stocks - with 75% less risk[*2]. Higher risk, less returns, that is *not* what modern portfolio theory was intended to produce, but it was the outcome.

It's time to re-think your approach to portfolio allocation and construction. There is much more available to investors than a colorful pie chart and an often times ineffectual process. **It works until it doesn't.**

Let's move forward.

After more than a decade of study on this topic I find the following to be some forward thinking wealth management methodologies that have been underutilized and misunderstood by professionals and clients alike. Author and speaker Bruce Raymond Wright asks his audience of highly discerning affluent people this question, **"What should elite advisors be doing for discerning investors who demand above average performance?"** His answer: **"Bring them relevant timely wisdom and execution they need but are not getting elsewhere."** You *can* engage differently, begin to move your money into alignment with market realities and your personal mission in life, career and legacy. I challenge you to re-think your approach.

As a Portfolio Manager, I **construct** and **manage** portfolios in such a way that strategically allocates towards the most attractive segments of the market, and invest intelligently in the areas that have shown to have the highest current benefits. Let me further explain; the purpose of my portfolio is to identify major themes in the market, have exposure to those strongest themes and avoid the weakest ones.

The screening process compares sectors (or markets) to one another and seeks to achieve the largest magnitude of movement to the upside while managing downside risk by moving away from sectors (or markets) with the least strength. The systematic and rules based approach also allows me to eliminate the human (fundamental analysis) or "emotional" trades.

Portfolio Management

As an example of this, let's imagine that we have a very broad "pool" or inventory of investments to draw from. This pool consists of just about every conceivable investment tradeable on the exchanges.

- **Most sectors and subsectors of stocks and bonds within the US**
- **Stock indices*4 from investable countries outside of the US**
- **International sectors and regions from established and emerging countries**
- **Domestic and international high paying dividend stocks**
- **Unique opportunities like wind, water, cloud computing**
- **Stock indices representing microcap, small, mid and large cap**
- **Commodities such as sugar, cotton, lead, corn**
- **Foreign currencies**
- **Domestic and foreign real estate (REITs)**

Further imagine that we screen this inventory of investments on a regular basis against each other through a ranking process to determine what the best performing investments are, then, we own only the top handful or so. And when one begins to show weakness, we replace it with another top performing asset class. Let's call this our Asset Class Rotation Portfolio. We might have an equity portfolio that looks like this:

Healthcare	**Sugar**
Banking	**International Infrastructure**
Medical Devices	**Large Cap United Kingdom**
Clean Energy	**Ireland**
Leisure and Entertainment	**Small Cap Technology**
Aerospace and Defense	**Australian Dollar**

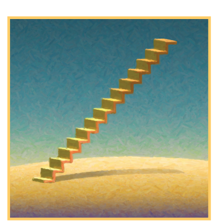
As opposed to the Pie Chart Theory approach that often looks like this:

Large Cap Growth	**Large Cap Value**
Small Cap Growth	**Small Cap Value**
International	

This is my delineation as a Portfolio Manager. A process by which the top performing assets from a macro world view are chosen based on a non-judgmental, non-emotional, non-ego criterion. This is achieved through a technical screening process that allows the cream to rise to the top as I discussed earlier. Own only what is currently working the best. Ask yourself this; could it be that the performance of a portfolio has little to do with diversification and more to do with asset selection? Simply stated, an investor's goal is to own only "what's working now".

May I suggest that you give more credence to the factors that affect returns the greatest when constructing your portfolio? In the main, many advisors and investors construct portfolios with the belief that they are minimizing risk – but I submit to you that too often they are really only minimizing their return by owning underperforming assets with the belief that the diversification will somehow shield them from bad market events. Let's reframe our thinking to fit the realities of the market as it exists and shifts.

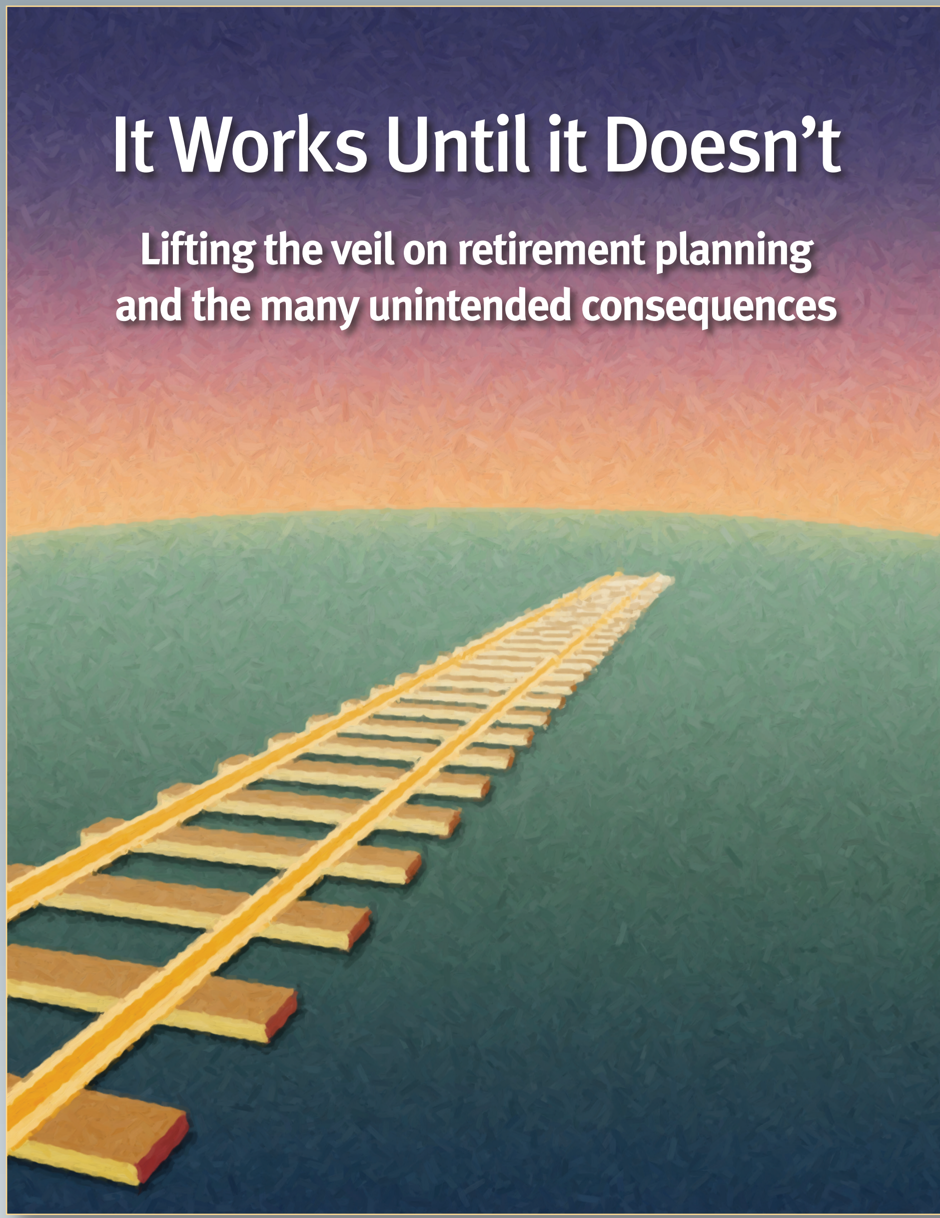
If the above has you re-thinking your approach to portfolio management, please feel free to reach out to me for a full and complete explanation of how this just might be one of the solutions you somehow knew was out there.



And remember,
it works until it doesn't.

It Works Until it Doesn't

Lifting the veil on retirement planning and the many unintended consequences



In the stone-age, there weren't many old people, and there was no retirement. In 1905 the physician William Osler in his address at Johns Hopkins Hospital said that the years between 25 and 40 were the worker's "golden years of plenty" and workers between 40 and 60 were useless and should be put out to pasture. Roosevelt proposed the Social Security Act of 1935, and with a then average life expectancy of 62, suggested 65 was a proper age to retire. All things considered the issues we face today, albeit quite different, put into perspective are not nearly as bad as they once were.

It is my desire in this paper to bring to your attention a few highly critical points on positioning your retirement assets and thinking in an enlightened and informed manner. My intention is to help you avoid some costly mistakes that have been made too often by those who have traveled before us.

Mise en plas (miz a plas) is a French phrase which means "everything in its place". Any good chef or line cook worth their weight understands this phrase as it refers to having all of their ingredients exactly where they want them always – shallots, parsley, salt, olive oil, and sauces – must be where they are expected to be when the kitchen is getting slammed with orders.

Now, after living through and experiencing delusional arithmetic and real-time tragic outcomes, I have developed a viable and healthy approach to help those needing to receive retirement income over the rest of their lifetime.

No frantically searching for the car keys when your wife is ready to deliver the baby. Everything in its place – that's how some in the financial services arena would like you to believe it really is. Quantifiable, formulaic, and form fitting. Rarely do I find that to be the case, but that is what we are taught to believe so often through advertising, books, speeches and under-educated advice. The problem is the truth. As we evolve beyond the baseline thinking we quickly learn that the truth makes for an uncomfortable pairing with what often times gets presented as retirement income planning.

Academia, what a strange duck that turned out to be, and even more so as I have spent the last several years studying this topic from all sides. Fortunately, I now know how the train got derailed, but nothing will be gained if we continue to be trapped in our old assumptions. It is imperative to be willing to refine your investment philosophy to separate yourself from the status quo if your intent is to preserve your net worth and keep your assets growing or producing income for you with a high degree of success.

I am offering a sobering introduction into the financial dilemma popularly known as retirement income planning.

I believe that money is a tool that empowers those wise enough to become free to live the lives they want. I created this paper to help guide you past "selective" historical data, misguided assumptions and the devastating shortfalls of popular investing models – don't allow yourself to be held hostage by thinking and theories that are no longer effective. As I have seen it from my almost 25 years, I have come to the conclusion that some of the current advice being offered can place retirees at risk.

Next! Now serving customer number 47. There are some in the financial industry that plug in "average" returns, idyllic allocations, assumed life expectancy, inflation expectations, and then show you a graph that only goes up in a straight line. Then factor in cooking classes in France (okay – I'm projecting), travel, second homes, higher education, bequeathing to the kids and grandkids, a charity or two – everybody wins. The next 30 years are planned to perfection. Mankind wants so much to fully understand his environment and to control all of its effects, but unfortunately, this quest can also lead to harmful delusion.

Let's look closer at the facts.

It is such a cruel notion that one's retirement income is subject to many factors out of our control, that almost nobody wants to admit it or appropriately take relevant action. Anyone who has spent their life achieving enough success to feel that they can retire in dignity does not want to feel that they are still subject to factors outside of their control. I believe the following is singularly the most important concept you MUST understand if you are to have any chance of positioning your retirement income portfolio correctly. This is the little known or discussed SEQUENCE OF RETURNS. In an income distribution portfolio, the order of market returns dictates greatly the success or failure of portfolio longevity. Simply stated, if you had a 40% Stock, 60% Bond portfolio and retired in the early 1920's, early 1950's, or late 1970's and took a 6% annual withdrawal – the portfolio would likely have lasted 30 years. At any other time, 1900's, 1910's, 1930's, most of the 1940's late 1950's, 1960's, or early 1970's, the portfolio life expectancy was about 17 years.[*5]

Why sequence of returns is so important.

For many people, their retirement account is a fixed pool of assets that they wish to withdraw from over their retirement lifetime. On the surface, it's not uncommon to assume that if our investment account averaged 7% a year during the accumulation phase, that we can now take 5% a year, allow for some inflation (say 2%) and leave basically what we started out with for our heirs. Sadly, this thinking does not play out very well as you will soon read. The rules for an accumulation portfolio do not overlap when you are taking distributions. Tangible results matter more than good intentions. It's not about assumptions – but confronting reality. Before leaving a legacy you must first feed yourself.

Now, let's look at the math.

I will use that 5% withdrawal rate and 2% inflation rate that I alluded to earlier in the hypothetical example shown below– but during the 1900's inflation exceeded 3% and now there are inflation numbers for "retirees" that better reflect their respective expenses, which is even higher.

We start with $100 and take $5 (5%) plus $2 (2%) for inflation each year, and I'll even assume that 7% average annual return. A very optimistic return net after advisory fees, income and capital gains taxes.

Year One	Newly retired, no more income from work, withdraws 5% for the year at the beginning – now has $95	Account returns **+7%**	Ending Value is $101.65
Year Two	Withdraws $5 plus $2 for inflation – now has $94.65	Account returns **0%**	Ending Value is $94.65
Year Three	Withdraws $5 plus $2 for inflation – now has $87.65	Account returns **-6%**	Ending Value is $82.39
Year Four	Withdraws $5 plus $2 for inflation – now has $75.39	Account returns **-9%**	Ending Value is $68.61
Year Five	Withdraws $5 plus $2 for inflation – now has $61.61	Account returns **+10%**	Ending Value is $67.77
Year Six	Withdraws $5 plus $2 for inflation – now has $60.77	Account returns **-12%**	Ending Value is $53.48
Year Seven	Withdraws $5 plus $2 for inflation – **now has $46.48**	Account returns **+15%**	Ending Value is $53.45
Year Eight	Withdraws $5 plus $2 for inflation – **now has $46.45**	Account returns **+15%**	Ending Value is $53.41
Year Nine	Withdraws $5 plus $2 for inflation – **now has $46.41**	Account returns **+15%**	Ending Value is $53.37
Year Ten	Withdraws $5 plus $2 for inflation – **now has $46.37**	Account returns **+20%**	Ending Value is $55.64
Year Eleven	Withdraws $5 plus $2 for inflation – **now has $48.64**	Account returns **+22%**	Ending Value is $59.34

This information is hypothetical and is provided for informational purposes only. It is not intended to represent any specific return, yield, or investment, nor is it indicative of future results. Investors cannot directly purchase any index.

The inconvenient truth.

After just 11 years "averaging" +7% a year and finishing up with the last five years totaling a return of +87%, the account has lost more than 40% of its value, and was halved in years 7-11. This was with only three down years averaging -9%. At this point a $7 per year withdrawal is almost 12% of the assets, the account is highly likely to fail shortly (run out of money). And, it was far from keeping up with real inflation numbers. It is very important not to buy into the voodoo math of averages or those who tout it. Do not treat a distribution portfolio the same as an accumulation portfolio. The market losses sustained here were really quite nominal. You must know that every withdrawal creates a permanent loss. The belief that "The markets will always go up in the long run" does not have the same effect on a portfolio where taking distributions systematically is critical. Don't confuse the average portfolio growth rate with a sustainable withdrawal rate, as noted above, they are two different things.

Imagine a T.V. commercial from a major financial institution during a major golf tournament stating that "timing" or "luck" is more important to the success of your retirement plan than are its advisors, global financial strength and 140 year history. In retirement it's how well or poorly the market returns are early on that strongly dictate the portfolio longevity. Average returns mean very little if anything – the ORDER of those returns means just about EVERYTHING. Retire in 1973 and your 40% stock, 60% bond retirement income portfolio was empty in about 17 years. Retire just two years later in 1975 and that same portfolio lasted 30 years. Unfair? Maybe. Perhaps now you see why I think it is important to respect historical facts.

The Average Return Problem.

The "average" returns are the same, but the outcomes are dramatically different. **Retirement income distribution portfolios act nothing like accumulation portfolios.** Goldfish and piranhas are both fish yet not knowing the differences could also shorten your retirement. Not understanding the nature, sequencing and timing of investment portfolios could derail the abundant joyful retirement you were hoping for. This is a key point: you must know, understand, account for, and respect the differences.

Averages. Do not design a plan around average of returns. Averages do not apply to individuals. The average returns of the Dow Jones Industrial Average from 1900 – 1999 was 8.6%. Tell that to those who retired in 2000 or 2007. Those people likely did not enjoy the kind of abundant retirement that previous retirees experienced – at least initially.

You cannot choose the timing of your retirement. But you can acknowledge and be mindful of the effects of timing and sequence of returns.

Following are three sets of hypothetical results, each assuming an average return of 7.56 percent but with three different return sequences.

The results are startling. **Although all three sequences realized the same average return for the entire 30-year period, the results for each sequence of returns differed substantially.** One only lasted 22 years and another lasted 30 years and had more than $1,500,000 left over.

Here is a simple hypothetical example to illustrate my point; John and Ann are 65 years old and have just retired. They've accumulated $1 million which is invested in a 55 percent stock, 45 percent bond portfolio with a 7.56 percent average total return.

They want to withdraw $62,000 before taxes each year (inflation at 3 percent) from now until age 95. How long will their money last:

Results for John and Ann Using Average Returns

Withdrawal Amount	$62,000	$62,000	$62,000
Return year 1	-10%	+7.56%	+29%
Return years 2–29	+7.56%	+7.56%	+7.56%
Return year 30	+29%	+7.56%	-10%
Average return for 30 years	+7.56%	+7.56%	+7.56%
Result: how long money lasted	22 Years	30 Years	30 Years
Result: value at the end	$0	$98,000	$1,543,000

(please see disclaimer on page 7)

The known unknowns.

Withdrawal rates. "How much can I safely withdraw from my portfolio for the rest of my life?" This questions of withdrawal rates runs a close second in importance to the sequence of returns. These are definitely the two big areas of consternation to be sure. The sheer volume of academia studies, reports, debates, and miscellaneous methodologies on this topic are at a minimum mind-numbing, if not overwhelming.

There are many inherent issues here. We don't know our life span (portfolio duration), we don't know the future market returns or their order (favorable or unfavorable), and we don't know how adjusting for inflation will change what we withdraw.

To be blunt, we don't know any of the other inimical events that await us tomorrow, let alone what is ahead for us over the next thirty years or so in retirement. This can make finding and choosing the optimum strategy complicated and time consuming.

So, just what can be said? Assuming the usual 30 years of withdrawals and no money being added, using the past 100 years of REAL market returns (1900 – 1999 Dow Jones Industrial Average) and increasing each year by REAL inflation as it corresponded to the applicable market cycles, and allowing for a 90% success rate[*6] no matter what the year of retirement was, here is what the FACTS say:

- **A 3.8% annual withdrawal rate is quite realistic**
- **A 3.9% - 5% annual withdrawal rate is less likely to be successful**
- **Over 5% often results in financial failure**

Not terribly exciting I'll agree. But please keep in mind that the primary constraint of presumed safe withdrawal rates is to have the rate low enough to survive an early 10 years or so of poor returns. This has to account for the worst case scenarios, that being any combination of low returns and high inflation in the early part of retirement.

Yes, there is good news too. What I glean from this is: 1) Know the realities so you don't get hurt, or in a situation so deep that you can't recover; 2) For as much as the raw numbers are quite low and perhaps disheartening, many investors are "lucky" enough not to live through periods of "worst case scenarios". The moral here is to begin with prudence and adjust accordingly; 3) Knowing how to maximize your situation using all of the appropriate tools and approaches can greatly enhance your chances for a favorable, above average outcome; 4) And especially, do not allow yourself to become overly confident during up market cycles and take "too much income" out of your account.

Failure at this point in life is penalized much more than success.

Allocate using a better set of questions. Design a strategy that has the ability to provide life-long income. Ultimately, the most critical factor is having enough beginning capital to finance market volatility, sequence of returns and inflation. Failure at this point in life is penalized much more than success. Large declines or withdrawals in the early phase can wreak havoc for the remaining years. Let me acknowledge that I believe the management of the retirement phase needs to be far more personalized and sensitive than the savings and growth phase. That being said, the following are just general outlines to provide some insight into my thinking – feel free to reach out to me if you would like to discuss the specifics of your situation. Again, one must remain flexible and maturely embrace uncertainty by becoming fully aware of the external events out of the average investor's or advisor's purview while monitoring and benefiting from what is within one's control.

Risk. Risk profile is not really applicable here, I know that doesn't quite seem right, but there just isn't a "conservative" or "aggressive" approach to this. I submit that many start out by addressing the wrong risks. You run out of money or you don't. That qualifies as the ultimate risk litmus test, again – **"It works (or) it doesn't"**. Begin with the end in mind. As previously illustrated with 100 years of actual returns and commensurate inflation, the best allocation with the highest degree of success was shown to be 40% Stocks and 60% Bonds. That was the straightest line from A to B. Having said that, we could be looking at this from the worst case scenario perspective, and blindly investing based on that, with no thought given to what structural market cycle we are in. The point here being, that not all roads lead us to where we want to be. To succeed we must align our thinking and our portfolio to what it takes to get to the destination. We must always be diligent, flexible, unemotional and be in alignment with what is most likely to work next.

There is a meaningful chance that if one deals with the first part of this retirement phase correctly, a portfolio can experience returns above the minimum expectation. When that happens, an investor may want to judiciously increase their rate of distribution.

I do take great issue with the propensity of long-term "growth" accounts that have been muted with short term thinking and fearful investing. You must transcend attachment to short term thinking – this is a critical point of discernment and necessary for those who wish to achieve and sustain a truly abundant retirement. Do all that you can to maximize the growth portion of your growth allocation; one of the single biggest positive attributes to the well-being of the plan is excessive return above the norm. If you invest mostly to feel safe, you are likely to put your future in greater risk.

A portfolio doesn't care how long its owner lives.

Here is a basic "concept" outline, of how one might initially set up their retirement accounts for distribution. Let me state that the overwhelming design of this is to allow for some insulation if the beginning of retirement coincides with negative or sideways markets. There isn't too much one can do but to buy time and avoid spending down assets that have depreciated. This of course assumes that one needs to be withdrawing income solely from these assets, if there are other income sources to draw upon then the accounts might be positioned differently. Again, there are many strategic and tactical variations depending on an individual's specific situation, so please take this example only as a template to be modified accordingly.

Retirement Income

If income is withdrawn from fluctuating assets such as stocks, a significant portion of the portfolio life might be lost during a typical retirement. Knowing that growth is usually necessary – and that we don't want to withdraw money from a volatile or possible depreciating asset – we begin by segregating our broad assets classes into distinct accounts. The purpose of this is to **match the investment to the maturity date** of when you will need the money. This helps to maximize the chances of success by giving each asset class the time it needs to generally show its gains.

Please understand, appreciate, and address that we are hard wired to minimize the emotional experience of investing as much as possible, but this is not always the best approach to maximize returns of long-term assets. There was a Dalbar study*7 (this company just reports on investor behavior) that reported the number one reason for losing money was trying not to lose money. I simply cannot tell you how profound this is. The benefits of having the accounts designated for different purposes and timeframes can also help to alleviate rash and harmful deviation from the plan when those unpleasant market declines inevitably occur. The psychological benefit of knowing that the "growth" portion of the account may not need to be accessed for 10 years or more helps to minimize the scope of these events. Being obsessed with market fluctuations can do real damage by over-reacting, which so often results in losses or less than optimum returns. Manage your portfolio with sound strategies and tactics applied in a timely manner, not emotions. Such a mature and disciplined mindset will go a long way to truly providing you the best chance for an abundant retirement. Having the right kind of investment strategy can empower you to get on with the joys of retirement.

On the surface, this may appear almost too simple, but in practice there are always more moving parts and many choices to consider. I do factor in the current market cycle and the bond environment as well. In a complex global economy and constantly fickle markets, almost nothing is simple. Many sovereign wealth funds and endowments are now using a variation of what I am describing in this article. Some of them refer to this as a "Dynamic Asset Liability Management Framework" *8 (of course they do). It consists of three different portfolio approaches: 1) A liability portfolio (short term needs); 2) A liability hedging portfolio (buying time if they need it); and 3) A performance seeking portfolio (long term growth). What's the dynamic part? The ability to move money between the three portfolios as needed and warranted. This is really the key; short, intermediate, and long term accounts. Depending on how an asset or market is trending and life events unfold, we have allowed for a protracted bad stretch without having to take withdrawals from the (diminishing) "growth" account. This can dramatically help the recovery process and allow the time needed for this cycle to pass and the asset base to grow. And, we did so with minimum damage (financially and emotionally). But, we also have the flexibility to harvest the gains and reallocate should the markets be favorable. Allow for bad times, and take advantage of the good times.

A big part of the success of this equation is managing the asset selection, holding and selling process effectively from the beginning. I don't believe that more assumptions and more sophisticated analysis necessarily helps the process.

Hippocratic Oath – First do no harm.

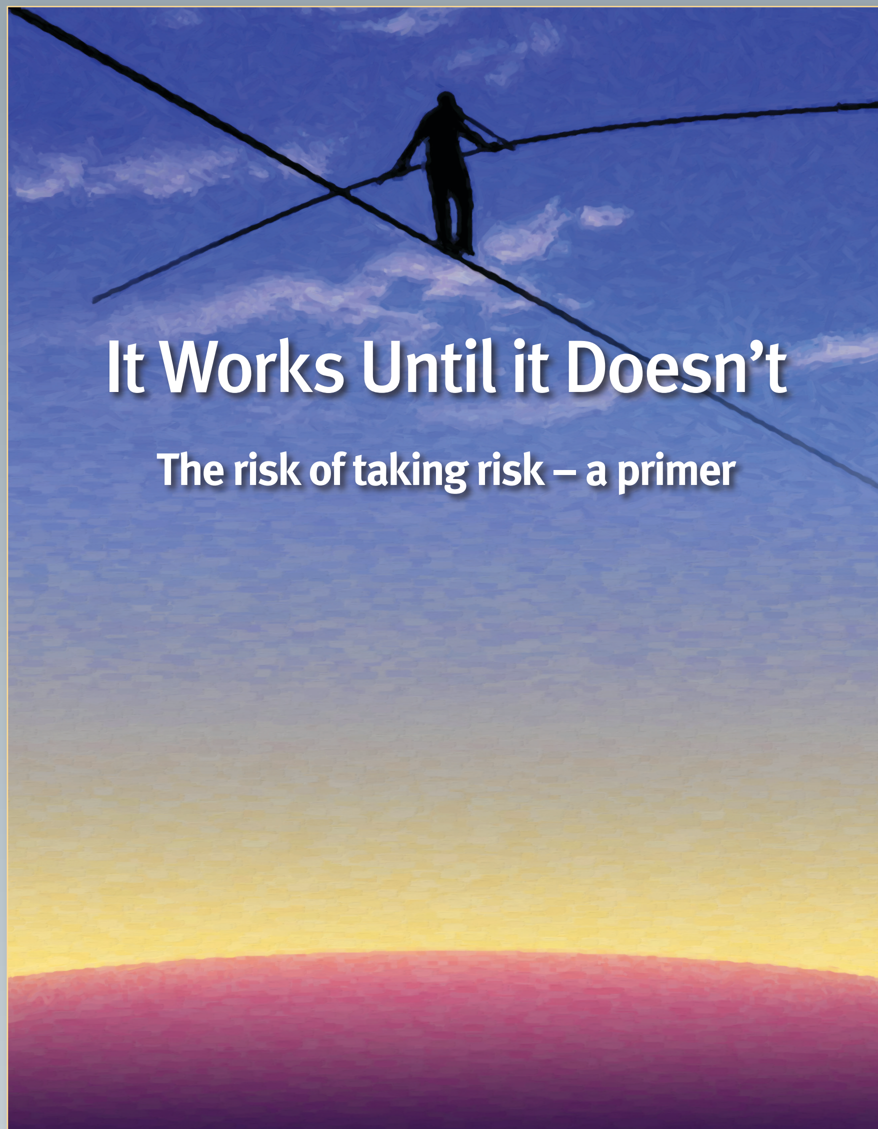
After assiduous contemplation, I realized my greatest contributions to the retirement planning process revolved as much around what not to do as much as what to do. First do no harm – Hippocrates was an ancient physician and obviously not a financial advisor. I am very much aware that there are many other important topics that pertain to retirement planning that I did not address here. I purposely chose to focus on the few that I felt would offer the greatest and broadest reaching benefits if acted upon or avoided.

The point being – understand what goes into the packaging. Understand that a prepackaged retirement plan may not be as healthy as it appears. It's too important a topic not to know everything that goes into the retirement sausage. Get the facts and not the fluff and make wise decisions with wise advisors. Don't abdicate your power. Do you part to pursue a dignified retirement knowing that you are acting and adjusting on the best information.

I am in the business of bringing relevant wisdom that people need but are not getting elsewhere.

I sincerely hope that you found this thought provoking, and that it helps you to transcend the common thinking that leads to ordinary or average results. I believe that retirement ought to be about spending your time, talent and resources on what matters most to you. I am in the business of bringing relevant wisdom that people need but are not getting elsewhere. I encourage you to contact me if the above has sparked your imagination about your retirement investment philosophy and management approach. I would love to share some additional facts and insight with you in ways that are personally relevant to you.

And remember, **it works until it doesn't.**



Risk. The risk I will address here is investment risk. Although, truth be told, the bigger risk is ourselves.

First, you must appreciate the following:

We are animals, lest we forget.

- For nearly our entire history as a species, we were hunters-gatherers, living in small tribes, seeking mates, finding shelter, foraging for food, pursuing prey and avoiding predators.
- If we were to survive, we needed to pursue rewards and avoid risks as quickly as possible.
- We have only been investing for a fraction of our existence, and have been running from lions the rest of the time.
- Financial losses are processed in the same areas of the brain that respond to mortal danger.
- The neural activity of someone whose investments are making money is indistinguishable from that of someone who is high on cocaine or morphine.

As neuroscientists will tell us, evolution has designed our emotions to make us do what our ancestors had to do. The Reflexive System is very sophisticated and served us well for millions of years. But in a modern world, where life is much more complicated than just immediate threats – it’s not adequate and is likely to get us in trouble.

"If you burn your mouth with hot milk,

next time you blow on your yogurt"

– Turkish Proverb

Let's fast forward.
Risk re-imagined.

Risk though, is like matter, it can neither be created nor destroyed. It just exists. When you buy a less risky investment, like a U.S. Treasury Bill, you are not eliminating your risk; you are just reducing the risk of losing your money and increasing the risk of losing purchasing power. The risk hasn't gone away; you have just substituted one risk for another.

In the financial markets, I believe psychological comfort is over-rated. The path to superior investment performances is generally through psychological discomfort. There are multiple studies[*7] that state, "The main reason for losing money is trying not to lose money". As a 25 year veteran in this industry, truer words have never been spoken.

Risk is fundamental to investing, but there are numerous definitions to be sure. Is volatility risk? Perhaps, based on our ancestral Ventromedial Prefrontal Cortex[*9], but most volatility really stems from crowds overreacting to information. Indeed, almost no volatility can be explained by changes in the underlying economic fundamentals at the market level (corporate earnings, interest rates). Volatility measures emotions, not necessarily investment risk. However, the investment industry has adopted this same volatility as a risk measure that, rather than focusing on the final outcome, focuses on the bumpiness of the ride.

I believe that risk and volatility are not interchangeable. Emotion is not risk. Focusing on short-term volatility when constructing a long-term portfolio will often lead to long-term under-performance.

Quite often I see this industry mistakenly build portfolios that minimize short-term volatility relative to long term results, placing emotion at the very heart of the long-horizon portfolio construction process. This approach unfortunately is popular because it legitimizes the emotional reaction of investors to short-term volatility. I submit that the real risk is the risk of underperformance. Most financial advice is about *today* – what should I do *now*, but the vast majority of the time, I've come to realize that today isn't that important.

Many investors pull out of the stock market when faced with heightened volatility. But research shows this is exactly when they should remain in the market and even increase their stock holding, as subsequent returns were higher. We know that many investors exit after market declines only to miss the following rebounds. Following the 2007-2008 market crash, investors withdrew billions of dollars from equity mutual funds during a period in which the stock market more than doubled. In 2007, to early 2008 the perceived risk was being over-invested. Afterwards the risk was being under-invested, missing the gains from the rally, also known as "opportunity cost". The end result of such reactionary behavior is that investors frequently suffer the pain of losses without the potential of capturing the subsequent gains. Again, truth be told, the bigger risk is ourselves. (Did you sell your home when it declined 25%?)

Please take a moment to look at the chart at the end of this article. This is one of the more telling visuals on this topic spanning 35 years. It shows the intra-year declines and how the market ended up afterwards. Over the last three decades we have averaged a correction (market sell-off) of about 14% each year. Now take a look at just where we ended up. Knowing and understanding this will help you tremendously.

Risk

In 2012, several of the highest paid managers from the iconic Harvard Endowment fund left after many years of under-performance. After 2008 they shied away from stocks at just the moment when they should have increased their allocations to stocks. They were paid millions each year to manage money and they failed at "Investing 101". Their decisions were driven by fear, and not rational. Again, volatility is not risk. There are the dangers of not carefully distinguishing emotions from risks and thus allowing emotions to drive investment decisions.

Generally investors seek to minimize the emotional experience as much as they can. Let me offer you this. Don't get influenced by what you think might happen. Stay away from the noise. The markets don't care what you think. And they don't care what the talking heads think either. Work toward minimizing your failure rate and pay no attention to the financial news. Do you plant an acorn seed and go to the backyard to watch it grow every day?

Can you imagine if the grand visions of Getty, Morgan and Carnegie*[10] were reviewed and debated for 10 hours each day on T.V., with pundits second guessing the outcomes. Please let us not lose sight that great achievements take time, patience, setbacks, moments of loss (lives, time, money, support). Maybe your IRA will not advance mankind, but let it be the best it can be none-the-less.

> *"The stock market is a device to transfer money from the impatient to the patient."*
>
> – Warren Buffet

From 1980 – 2013, Warren Buffet's stock, Berkshire Hathaway, has compounded at 21% per year. But those returns didn't always come easy.

Berkshire Hathaway (BRK-A) Largest Losses*	
1981 – 1982	**-19%**
1987	**-37%**
1989 – 1990	**-27%**
1998 – 2000	**-49%**
2007 – 2009	**-51%**

** Largest losses since 1980*

The one percent. The "one percent" phrase has been used quite a bit to decry income inequality, but I'm using it here in a different context. Most of what matters as a long-term investor is how you behave during the one percent when the world appears to be collapsing around you. Maybe your behavior during the one percent of the time is how you get to be part of the one percent.

The cost of equating risk and emotional volatility can be seen in other areas as well. Let me parse this thought in non-financial terms. A flying analogy illustrates this separation process. All of us who fly have experienced turbulence, which can range from unnerving to downright frightening. When asked about their flights, many travelers will comment on the amount of turbulence they encountered. But we know from years of FAA research that turbulence rarely causes injury or death. Instead, pilot error and other human errors are the leading causes of plane crashes.

What if the FAA had listened to passengers to determine the risk of flying? Rather than meticulously studying each accident and uncovering the true cause, the FAA would have spent considerable time trying to reduce turbulence, as requested by passengers, thus missing the critical role of human error in accidents. By focusing on short-term turbulence they would have actually made flying more dangerous. But they did not, and as a result we have just experienced the safest year*[11] (2017) in commercial passenger flight since the dawn of the jet age.

The path to the outcome is less important and has little influence on the measure of risk. Risk takes on many guises and can mean different things to different people. Each investor will have a different set of bad times defined by their liabilities, income stream, how they tolerate losses (or not) and other salient investor characteristics.

Be aware of the following:

Negative outcomes. Investors who are strongly risk adverse are more inclined to lose discipline and stray from a carefully constructed plan when the risk actually does show up. This is a valid and highly practical point. Sound strategies will from time to time deviate from the norm. Allow the strategy to run its course. Changing horses in the middle of the stream rarely has a positive outcome.

The risk of confusing the economy and stock market action. This unfortunately is a very common and harmful risk. I will not address the reasons here, but there is a disconnect between the two as the chart will show. Great damage has been done by reacting to the current events with the belief that the stock market will follow suit – it won't. The world events and the stock market returns are two separate functions. They do not necessarily act in tandem. If you take away anything from this paper – this is it. Don't get influenced by what you think might happen, the markets don't care what you think. I promise you.

Year-Over-Year Earnings Growth
from March 31, 1927, to September 30, 2003

Profit Change	Annualized S&P 500 Return
Above 20%	+1.3%
20% to 10%	+5.8%
10% to -10%	+9.3%
-10% to -25%	+28.6%

The greatest stock market gains have come when corporate profits have dropped -10% to -25%.

Confusing strategy and outcome. Perhaps it's human nature to judge the correctness of a strategy only by its outcome. In reality, since we cannot predict the future, a strategy is either correct before the fact (before the future is known) or it is not. Consider the case of a family breadwinner with a spouse and children to support. Unless the family is independently wealthy, life insurance is almost always a part of a prudent investment plan. Yet we don't judge the correctness of this decision by whether the beneficiary collects on the policy. Purchasing insurance is generally a sound strategy, regardless of the outcome. One cannot judge a performance in any given field (war, politics, medicine, investments) by the results, but must judge it by the costs of the alternatives. (i.e., if history played out in a different way). Clearly the quality of a decision cannot be solely judged based on outcome.

Risk can be real. A large negative surprise. One needs look no further than September 11, 2001 for proof of an important point. By accepting the real potential for significant negative surprises, you will be much better prepared to cope with them should they actually occur.

If you are investing in search of comfort – your future may be at risk. Hedging against short-term events in a long-term portfolio can result a continuous drain on the portfolio returns.

I believe only investment risk matters for making decisions, particularly for long term portfolios. But all risks are emotionally interconnected and it requires considerable effort to pull them apart. Correctly label each component: investors being over emotional, advisors fearful of business risk and the actual investment risk. Carefully distinguish between emotions and investment risk – you could find yourself wealthy.

Risk

You only mitigate market risk by not being in the market. Be in market or don't, but if you are willing and wanting then accept it and invest intelligently in the areas that have shown to have the highest benefits. Don't water down your investments with short term emotional adjusting. Think one percent.

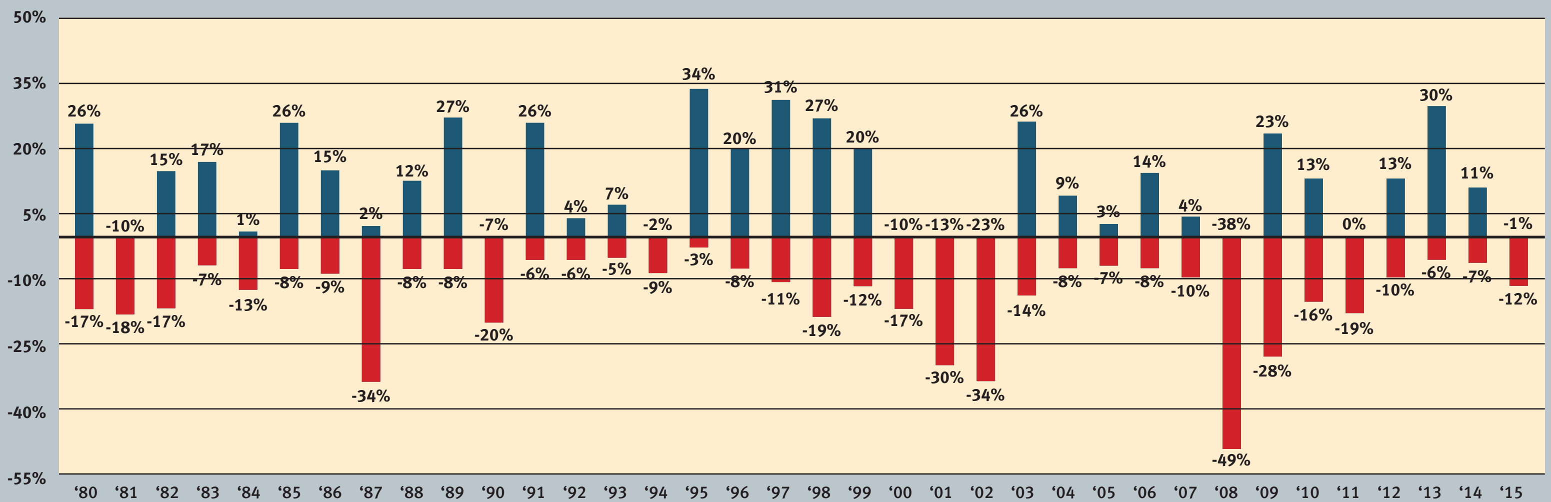
Regardless of how investment risk is defined, it's unlikely that human nature is going to change. No matter how much data and logic is applied – human emotions are still prone to overwhelm at inappropriate times.

Define your risk and then own it. It will test your resolve. Move your money into alignment with its purpose, and don't put the emotional balance sheet ahead of the financial one.

Conclusion.

Ample evidence supports the argument that emotional crowds dominate market pricing and volatility. As a step towards overcoming these emotional challenges, it is important to carefully distinguish between emotions and investment risk when constructing portfolios. To accomplish this, let's redefine risk as the chance of underperformance rather than as short-term volatility. Focus on the process rather than on the emotional path to the outcome because the process can be controlled.

It works until it doesn't.



Intra-Year Declines vs. Calendar Year Returns

Investors tend to see short-term volatility as the enemy. Volatility may lead many investors to move money out of the market and "sit on the sidelines" until things "calm down." Although this approach may appear to solve one problem, it creates several others:

1) When do you get back in? You must make two correct decisions back-to-back: when to get out and when to get back in.

2) By going to the sidelines you could be not only missing a potential rebound, but all the potential growth on that money going forward.

Volatility is not a recent phenomenon. Each year, one can expect the market to experience a significant correction, which over the last three decades has averaged approximately 14%. Although past performance is no guarantee of future results, history has shown that those who chose to stay the course were rewarded for their patience more often than not.

The benchmark used for the above chart is the S&P 500 Index.
Source: First Trust Advisors L.P., Bloomberg.

Important Risk Disclosures

Exchange Traded Funds seek investment results that, before expenses, generally correspond to the price and yield of a particular index. There is no assurance that the price and yield performance of the index can be fully matched. Exchange Traded Funds are subject to risks similar to those of stocks. Investment returns may fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost.

Commodity Exchange Traded Funds (ETFs) attempt to track the price of a single commodity, such as gold or oil, or a basket of commodities by holding the actual commodity in storage, or by purchasing futures contracts. The performance of an ETF that tracks a futures index may not necessarily correspond to the spot price performance (Spot price: the price of goods, currencies, or securities that are offered for immediate delivery and payment.). In fact, when there are significant differences between the spot price and the futures price, the performance of the ETF may be very dissimilar to the spot price performance. Commodity ETFs may use different instruments to gain their exposure such as money market funds, currency forward contracts, futures, etc, and are subject to the same risks as the underlying instruments.

Investments in currencies involve certain risks, including credit risk, interest rate fluctuations, fluctuations in currency exchange rates, derivative investment risk and the effect of political and economic conditions.

Dividends are not guaranteed and are subject to change or elimination.

The prices of mid-cap, small company and micro-cap stocks are generally more volatile than large company stocks. They often involve higher risks because smaller companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

There are special risks associated with an investment in real estate, including credit risk, interest rate fluctuations and the impact of varied economic conditions.

Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

Investments that are concentrated in a specific sector, industry, or geographical region may be subject to a higher degree of market risk than investments that are more diversified.

Investments in fixed income securities are subject to market, interest rate, credit and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and/or principal. This risk is heightened in lower rated bonds. If sold prior to maturity, fixed income securities are subject to market risk. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Cash/Cash Alternatives can represent investments that fluctuate in price and are not guaranteed with respect to either market value or returns/yields.

Alternative investments are complex investment vehicles which generally have higher costs and substantial risks. They tend to be more volatile than other types of investments and present an increased risk of investment loss. Other risks may apply as well, depending on the specific investment product.

Asset allocation/diversification cannot eliminate the risk of fluctuating prices and uncertain returns.

Insurance products are offered through nonbank insurance agency affiliates of Wells Fargo & Company and are underwritten by unaffiliated insurance companies. Insurance products are offered through nonbank insurance agency affiliates of Wells Fargo & Company and are underwritten by unaffiliated insurance companies.

Definitions

The Dow Jones Industrial Average is a price-weighted index of 30 "blue-chip" industrial U.S. stocks.

The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market value weighted index with each stock's weight in the index proportionate to its market value.

The Consumer Price Index (CPI) is a measure of the cost of goods purchased by average U.S. household. It is calculated by the U.S. government's Bureau of Labor Statistics.

Standard Deviation is a statistical measure of the volatility of an investment's returns. The higher the standard deviation, the greater its volatility has been.

General Disclosures

Wells Fargo Advisors did not assist in the preparation of this report, and its accuracy and completeness are not guaranteed. The opinions expressed in this report are those of the author(s) and are not necessarily those of Wells Fargo Advisors or its affiliates. The material has been prepared or is distributed solely for information purposes and is not a solicitation or an offer to buy any security or instrument or to participate in any trading strategy. Additional information is available upon request.

The PIM program may not be appropriate for all investors. Please carefully review the Wells Fargo Advisors advisory disclosure document for a full description of our services. The minimum account size for this program is $50,000.

Wells Fargo Advisors is a trade name used by Wells Fargo Clearing Services, LLC, Member SIPC, a registered broker-dealer and non-bank affiliate of Wells Fargo & Company.

Gregg Haglund has been a Financial Advisor since 1991 and a Portfolio Manager since 1996. Gregg provides fiduciary quality investment advice and his portfolio management skills to other financial advisors for use with their clients, as well as personally for a select group of his own clients. He is a student of the markets and from time to time authors timely industry related articles when warranted. Gregg finds that being a PIM Portfolio Manager in addition to a Financial Advisor allows for greater transparency with his clients as the management of their assets is not "delegated" to third-parties or products elsewhere. This empowers Gregg with a greater depth of knowledge of his clients' assets and the ability to provide timely insight on alignment with the realities of the markets.

Gregg L. Haglund

Vice President - Investments

PIM Portfolio Manager

Wells Fargo Advisors

225 S. Lake Ave., Ste. 700

Pasadena, CA 91101

Tel 626-583-4139

Fax 626-449-9564

gregg.haglund@wellsfargoadvisors.com

gregghaglund.com

linkedin.com/in/gregg-haglund-02420319

*1 For the purpose of this paper and the studies reviewed herein, the allocation models used are any combination of stocks (foreign and domestic), bonds (foreign and domestic), and cash alternatives (money market funds). The allocation of these investments can vary depending on an assortment of factors, but the use here is in a generic sense.

*2 The risk/reward models are any combination of CAPM (capital asset pricing model) and MPT (modern portfolio theory) which ascribes a unit of risk (standard deviation) for an historical rate of return.

*3 The Morningstar Long-Term US Government Bond index includes US Treasury and US Government agency bonds with maturities of seven years or longer. (formerly the Ibbottson Long Term Government Bond Index

*4 Keep in mind that an investor cannot invest directly in an index

*5 This statistic, as well as all others used herein, unless otherwise specified, uses the actual returns of the Dow Jones Industrial Average from 1900-1999 as well as the commensurate inflation (CPI) as it corresponded. The bond returns are the 6 month U.S. Treasury Bill plus .5%.

*6 success rate assumes that the withdraw rate is supported for 30 years without running out of money.

*7 2014 Dalbar's Quantitative Analysis of Investor Behavior

*8 a) DALM A profit testing model for Swiss pension funds. December 20, 2017 b) Life Insurance Comps – European Actuarial Journal. July 2011

*9 Deals with emotions versus critical thinking

*10 Captains of U.S. industry beginning mid 19th century

*11 Reuters 01/01/18