

Investment Risk

Vs.

Investment Return

White Paper

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Investment Risk vs. Investment Return

White Paper

Preface

When I decided to write a White Paper on investment risk, I intended to cover the A, B, Cs of the terms and formulas in the investment industry defining and quantifying risk.

I thought when I did my research I'd find very specific and redundant material outlining and explaining investment risk and how that risk is used when helping clients pick appropriate/suitable investments.

I thought I'd find a uniform way of applying the terms and formulas used by most broker dealers, RIAs, IARs, etc.

Not only was that not the case, but I found that the use of investment risk is only one half of a formula needed to help investors figure out what investments are best to help them meet their short-, medium-, and long-term investment goals.

I quickly made the decision that a White Paper covering only investment risk wouldn't be too helpful if it didn't also include a discussion of investment returns (the primary indicator used by advisors and clients to pick their investments).

My research led me to the conclusion that the way the investment industry picks investments to fit their clients' risk tolerance while at the same time helping them earn the returns they hope and need to achieve in order to retire in the manner they'd like is seriously flawed.

My research indicates that the vast majority of investors are taking far too much risk when trying to reach their investment goals. My hope with this White Paper is that it will help change the way investors see risk in the investments they choose.

In this paper, I'll be using easy-to-understand statistics, charts, and graphs that should have every reader nodding in agreement (if you disagree with my conclusions, feel free to e-mail me at roccy@thewpi.org with your comments).

When you are done reading this paper, I hope you will have a better and/or new understanding of investment risk vs. reward and can use this when picking your investments.

Introduction

I've been educating advisors through The Wealth Preservation Institute (www.thewpi.org) for nearly 10 years. Over that time frame, I've had countless numbers of RIAs (Registered Investment Advisors) and BDs (Broker Dealers) tell me that they had "the" money management platform I should get behind.

Since I send e-newsletters out to over 300,000 financial planners and/or insurance agents every month, firms are constantly hounding me to get their platforms out to my database.

I avoided the topic of money management for nine (9) years, and only in the summer of 2012 did I finally find a platform that fit my eye. What fits my eye is not going backward. I saw the market as too volatile and didn't want to associate my name with a BD's or RIA's platform when I knew it was just a matter of time before the stock market crashed and their platforms right along with it.

It is for this reason that I stuck to topics I knew would always be positive for clients or ones that had nothing to do with the stock market (topics such as asset protection, advanced estate planning, corporate structure, income tax planning, fixed life and annuities, etc.).

I was content after doing my research and writing the book, Retiring Without Risk, that clients could grow significant wealth with part of their money using Retirement Life™ (Equity Indexed Universal Life Insurance) and FIAs (Fixed Indexed Annuities).

In the summer of 2012, I ran into an old friend of mine who I hadn't seen in a while. He wanted to tell me how he had turned his RIA from one that was focused on clients to one that was focused on educating advisors to use his "unique" money management platform. To learn more about this unique money management platform, simply ask Chuck Price for more information at chuck@pfgwm.com.

He said I should review his platform to see if the advisors who receive my newsletters could benefit by learning about it.

I told him that I've been pitched every platform known to man/woman over the last several years and that I wasn't really interested. He said that he's been reading my newsletters and understands that I don't like the idea of the stock market tanking like it has twice in recent history and that he was sure I would like his platform.

So my friend gave me all the information on his platform. I took that information and gave it to two experts in the investment field and had them give it a look. To make a long story short, the experts were blown away with the model and were somewhat shocked at the money managers my friend had on his platform.

The platform is based on offering clients low Beta* funds with returns that have had actual returns of between 7%-12.5% net of fees over the last 10 years. The average Beta of the funds is approximately .30% with a range from as low as .10% to .48%.

Some of the funds have actual return histories going back 20 years, and one fund has an actual track record of 9.93% going back 21 years (net of management fees and year ending in 2012).

To get into my friend's platform, no manager can have more than one down year in the last 10 years. Interestingly, the fund that earned net returns of 9.93% going back 21 years had NO down years (it's hard to believe but the returns have been audited by an independent third-party auditor).

After I was done with a review of my friend's platform, I told him I, too, was blown away and that I not only thought the advisors who receive my e-newsletters would like to learn about his platform but that it was really my duty to get it out to them.

Therefore, I started doing newsletters in the summer of 2012 to let advisors know about the idea of a low-risk/high-return investment platform (high return is a relative term; I equate a return exceeding the S&P 500 as high because the average investor (see the DALBAR Report) averaged only 4.25% over the last 20 years). For a copy of the DLABAR Report, e-mail chuck@pfgwm.com.

To my surprise, since the summer of 2012, over 85 advisors have become licensed with my friend's RIA and have gathered in excess of 100 million dollars in assets under management (which speaks to the power of the platform).

To conclude this summary, it is because investors are taking more risk than they should to reach their financial goals that this paper is needed. I hope you find this White Paper helpful; and if you are interested in talking with an advisor who deals with low risk/high return investment strategies, feel free to e-mail chuck@pfgwm.com.

* As it relates to investments and finance, the **Beta** of an investment is a number describing the correlated volatility of an asset in relation to the volatility of the benchmark that said asset is being compared to. Most use the S&P 500 stock index as the "benchmark" to measure risk of other investments against. By definition, the **benchmark** itself has a Beta of **1.0**. Investments you compare to the benchmark are ranked according to how much they deviate (vary) from the benchmark.

Quantifying Measures of Risk (in investments)

The premise of this White Paper is that most advisors and certainly most investors do not understand the dynamics between risk taken vs. expected investment return. As stated, most investors are taking far too much risk in their portfolios for the expected return they hope to achieve.

It really boils down to whether you agree with the following statement:

Investors should take the *least* amount of risk to reach their investment goals

If you do not agree with that statement, then you really have no business reading or caring about what's in this White Paper.

Put another in a question form: Why would someone invest in something more risky if the potential return is the same as a lower-risk investment? The logical answer from any sane person would be they wouldn't.

What needs to be done next is to figure out how to measure the risk of an investment. It sounds like a simple enough task, but that is not the case.

It is not possible in a relatively short White Paper to cover the many different ways the investment industry measures the risk of an investment. I've chosen to cover some of the main ways the investment industry measures risk and a few that should, but are not widely used.

The following are the risk-measuring formulas and/or styles that I'll be covering: Standard Deviation, Pain Index, Downside Deviation, Sortino Ratio, Sharpe Ratio, and Return-Per-Unit-of Drawdown Risk (RUDR).

Standard Deviation—Standard Deviation (SD) is a statistical measure of the distance a quantity is likely to lie from its average value. In finance, standard deviation is applied to the annual rate of return of an investment to measure the investment's volatility or "risk."

The definition is

$$\text{StdDev}(r) = [1/n * (r_i - r_{ave})^2]^{1/2}$$

Where the terms r_i are actual values of the investment's annual rate of return taken over several years, n is the number of values of r_i used; and r_{ave} is the average value of the r_i .

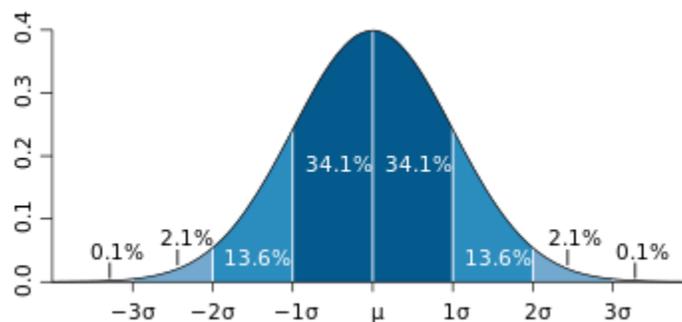
Makes sense right?

SD essentially is trying to figure out the likelihood of an outcome and assigning it a mathematical probability that the outcome will fall within a specified area. When you run the numbers on and plot them on a graph, you'd end up with a bell curve like you used to see in school. Most of the students would get Cs, fewer would get Bs and Ds, and fewer yet would get As and Fs.

Let me try to apply this bell-curve idea to SD. Let's assume the SD of the S&P 500 is **15** (which is about average for the S&P 500 depending on the time frames you use (it's been higher in recent years)).

Let's assume the "expected" rate of return of the S&P 500 is 8% (which is about the 20-year average return).

Let me digress for a moment and talk about the 67–95–99.7 rule, also known as the three-sigma rule or empirical rule. This rule states that nearly all values lie within three "standard deviations" of the mean in a normal distribution (your bell curve).



What this rule means and what the bell curve shows is that there is a 67% chance that the return (getting back to the investment example) of the S&P 500 will be within "one deviation."

Applying this to the S&P 500 index using an expected rate of return of 8% with an SD of 15, there is a 67% chance that the return in any given year of the S&P 500 will be within 15% higher or 15% lower than the expected rate of return.

The return of the S&P 500 using one deviation should have a 67% chance to return between 23% ($8\%+15\%$) and **-7%** ($8\%-15\%$) (with the average (mean) over time being an 8% return).

What you will find ironic after reading this material is that the general public has accepted this risk as acceptable seemingly without question. If John Bogel, the Founder of Vanguard, says that 80% of the mutual funds don't beat the indexes, then it makes sense that the average investor should grow their wealth in an S&P 500 index fund. I disagree, and I think you will too after reading this White Paper.

What about the second and third deviations? Standard deviation has traditionally had three (3) deviations.

The second deviation has a 95% probability of happening. That means there is a 95% chance that the S&P 500 will generate a return in any given year of between 38% (8%+15%+15%) and -22% (8%-15%-15%).

The third deviation has a 99.7% probability of happening. That means there is a 99.7% chance that the S&P 500 will generate a return in any given year of between 53% (8%+15%+15%+15%) and -37% (8%-15%-15%-15%).

When has stock market had losses of more than -22 and even more than -37% (statistically not likely to happen)? 1) 2000-2002 when the S&P 500 dropped -46% in less than two years, 2) again from the highs of 2007 to the lows of 2009 when the S&P 500 dropped -59%.

Do you see a problem with strictly adhering to the use of SD as “the” indicator for risk? What SD doesn’t take into account is a unique event that may happen in any given year—an event like the tech bubble, the mortgage meltdown, or, potentially, a third-world country with nuclear weapons doing something really stupid.

Many experts believe the main problem with SD is that it includes both variations above the mean and below the mean. This means that returns that spike heavily above the mean are considered bad. However, most investors only consider variations below an acceptable return as “bad” risk.

It is because of the limitations with SD that I don’t think it should be used as “the” primary indicator of risk/volatility.

The bottom line is that the higher the SD the more volatile/risky an investment is.

Pain Index

Simply put, the pain index is a risk metric.

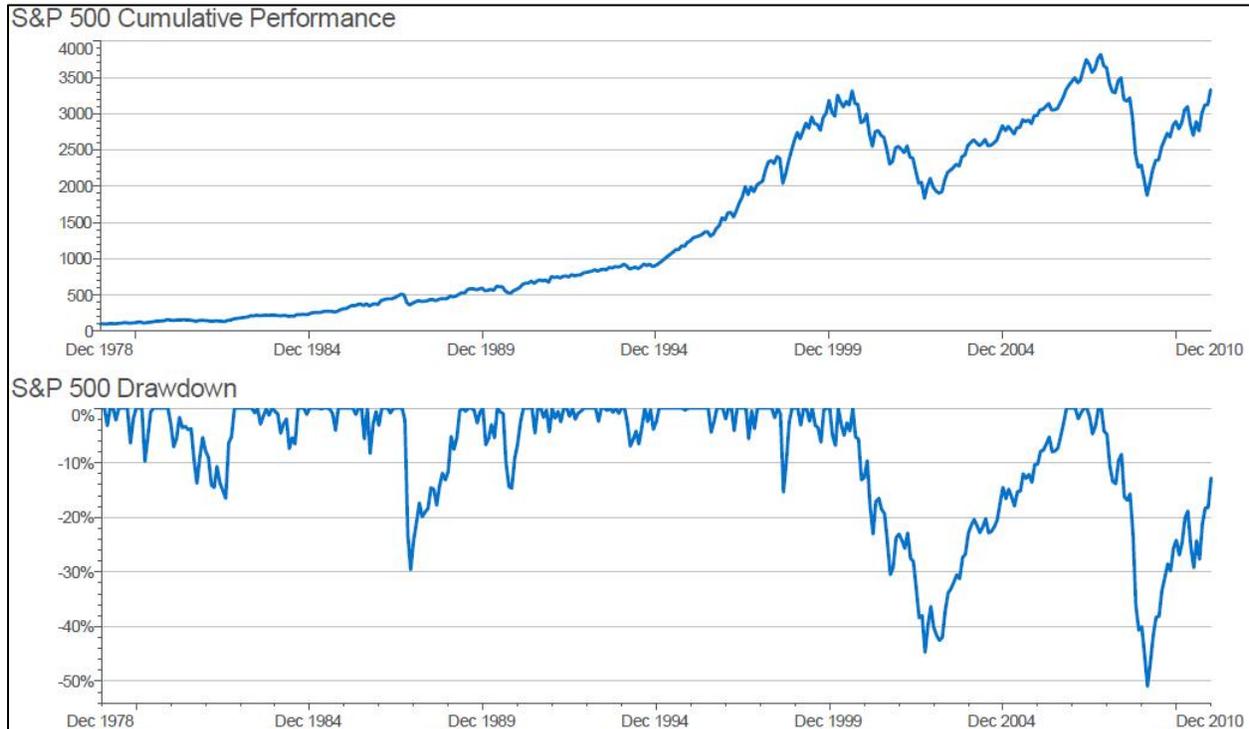
The pain index quantifies three measures simultaneously: 1) the depth, 2) the duration, and 3) the frequency of losses.

As a metric of capital preservation, the pain index differs from other metrics of downside risk, which focuses upon volatility or losses vs. a benchmark. Once established, the pain index can be utilized in a return vs. risk trade-off metric.

Let’s look at some charts* that will help explain the pain index. Let’s start with a simple “growth-of-\$100” chart that displays the cumulative returns of the S&P 500 index.

*The chart and some of the content from this section are from Zephyr Associate, Inc.

Over 30+ years, one can clearly see in the top part of the following chart an upward trend. However, one can also quickly gather that the ride was not always smooth and uninterrupted. There were periods where this data series lost a significant portion of its gains.



The bottom part of the previous chart shows the drawdown periods. The drawdown graph starts by showing the depth of each loss. Drawdown of a period of time is defined as the percentage loss from a peak to a trough after the peak (see page 15 for a full explanation of drawdown).

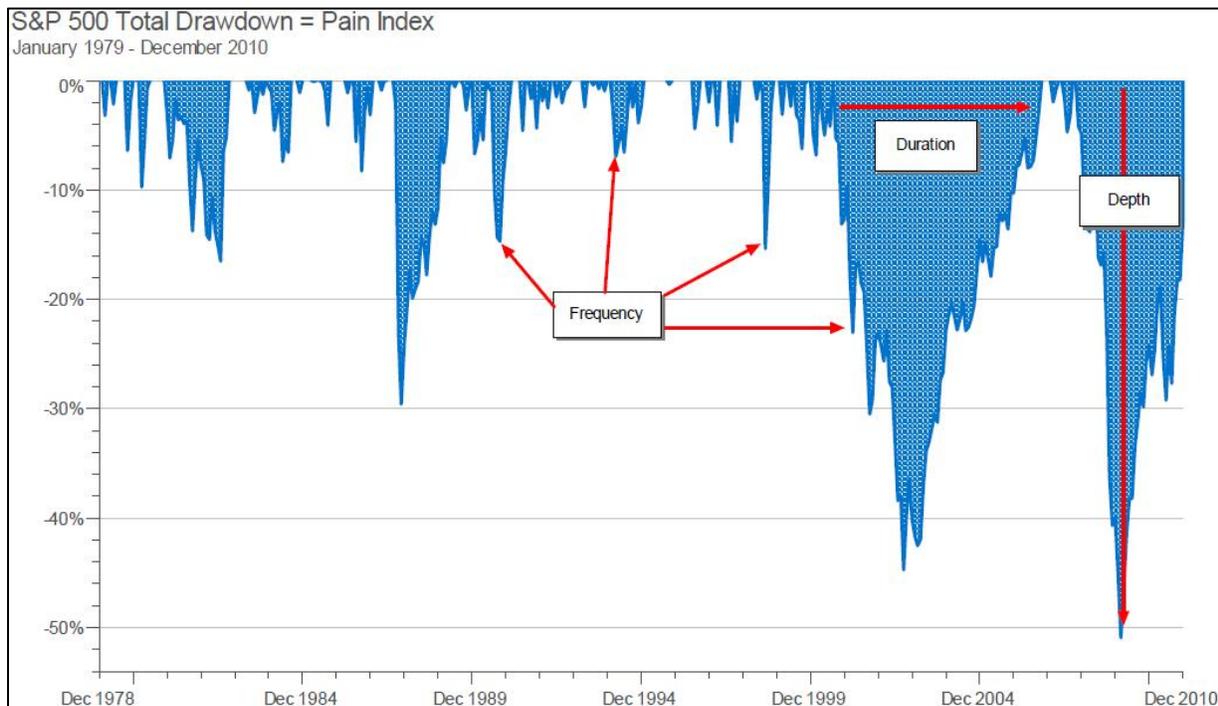
When you look at the top part of this chart, you see two huge market corrections and are led to believe incorrectly that the rest of the time the market had a pretty smooth and steady increase (at least from 1978 to 1999).

However, a close look at the bottom part of the chart shows specifically when and what the drawdowns were (negative returns). Shortly after the chart starts, you have a -5%, -10%, and -18% drawdown. Then you'll notice a -30% drawdown before 1989. After 1989, there are several drawdowns prior to the big two market crashes starting in 2000 and again in 2007.

What do you think the average investor did during some or most of the drawdown periods? Did investors ride them out or panic sell? As you can read in the DALBAR Report (e-mail chuck@pfgwm.com to get a copy of the report), most investors are incapable of buying and holding and most will panic sell at the most inopportune times.

A visual like the previous chart is useful in understanding the periods of loss and the capital preservation characteristics of a fund manager or index. If an investor is concerned about capital preservation and minimization of losses, this is all very useful information.

Calculating the Pain Index—the depth, duration, and frequency of loss periods are represented by the blue-hatched area. Ideally, investors want losses to be shallow and short not steep and wide (long); and, of course, investors want losses to occur as infrequently as possible. That area, divided by the length of time of the analysis, is the pain index.



In terms of values, the smaller the number the better as it would equate to a smaller area in the drawdown graph. There is no hard-and-fast number for the pain index that serves as a cut off between good and bad. Instead, the pain index must be viewed as a relative statistic, e.g., a manager vs. a benchmark or a number of managers against each other.

Historical Pain Index Numbers

I thought it would be helpful to look at the pain index and standard deviation numbers going back through the last few decades for various types of investments (equities, international, bonds, etc.).

First, let's look at the historical returns by decade of the various asset classes.

	1980's	1990's	2000's	Average
Large Cap Stocks (US)	17.55%	18.21%	-0.95%	9.78%
Small Cap Stocks (US)	14.52%	13.40%	3.51%	10.10%
Int'l Developed	22.77%	7.33%	1.58%	5.80%
Emerging Markets	N/A	11.04%	10.11%	14.06%
Invst Grade Bonds (US)	12.43%	7.69%	6.33%	7.34%
High Yield Bonds (US)	N/A	10.72%	6.72%	8.78%
REITs	12.51%	8.10%	10.18%	9.47%
Commodities	10.67%	3.89%	5.05%	6.88%
Hedge Funds	21.82%	14.04%	4.85%	9.97%

Relatively speaking, the pain index numbers in the 1980s and 1990s don't have a wide variance. This makes sense considering the steady gains made through both decades. However, in the 2000s there were wild swings down and up in the market; and you'll notice that the pain index jumped accordingly.

The pain index is not the be-all, end-all statistic one would use when analyzing a manager. Instead, it's just a tool in the toolbox to be used in conjunction with other ways of looking at risk and return, RUDR (see an upcoming section), the Sharpe ratio, Downside Deviation, etc.

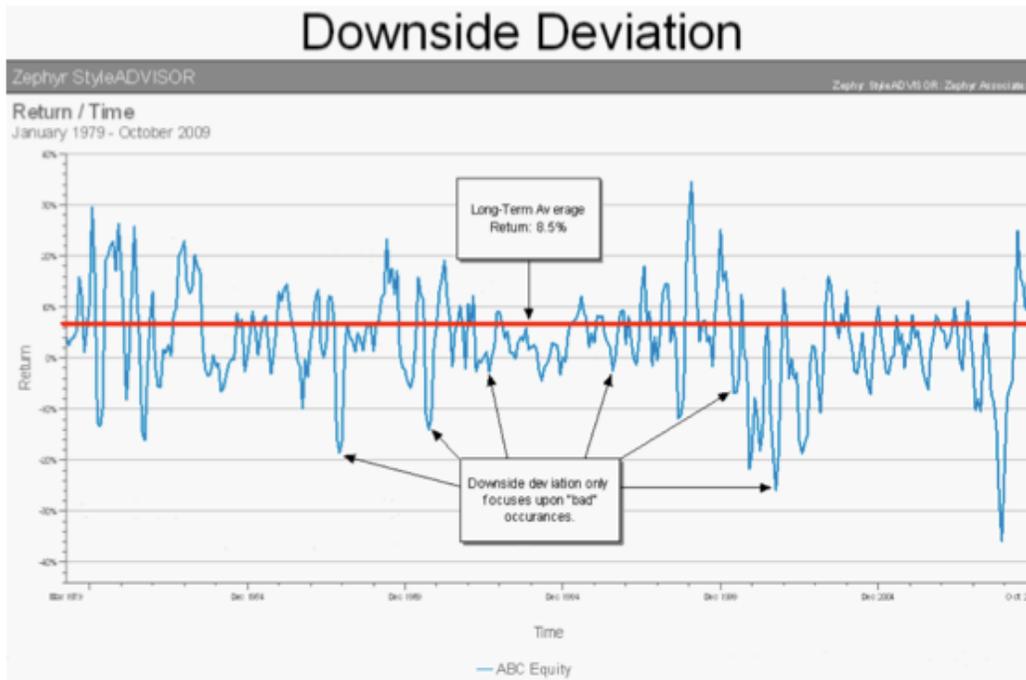
Downside Deviation

Downside Deviation (DD) measures the price volatility of a security; but unlike standard deviation, downside deviation isolates the downside movement by *only* calculating the times when the price falls below a defined Minimum Acceptable Return (MAR). DD, unlike standard deviation, doesn't punish a fund manager for having rapid positive returns (which to me makes logical sense and is the reason I like DD much better than standard deviation).

One deviation encompasses 67% of the downside return occurrences; two deviations encompass 95% of the downside return occurrences; and three deviations encompass 99% of the downside return occurrences.

EXAMPLE: Using a 10% MAR, the annual downside deviation of the S&P 500 from 2000-2010 is **-13.8%**. This means that when the returns fall below 10%:

1. 67% (1 DD) of the time the returns would range between -3.8% and 10%;
 2. 95% (2 DDs) of the time the returns would range between -17.6% and 10%;
- and
3. 99% (3 DDs) of the time the returns would range between -31.4% and 10%.



What are the pros and cons of using downside deviation?

Pros—downside deviation *isolates* the negative portion of the volatility (*below the red line in the chart example*) to ensure that volatility to the upside does not penalize the manager/security.

-Downside deviation uses historical data to provide a glimpse at the likelihood and possible ranges of return when an investment underperforms.

-Downside deviation allows flexibility: You can change the MAR depending on the desired risk parameters. For example, you could set the MAR at “0” if you only want to measure the times when the returns fall below 0 or have the MAR change to match a “risk-free” asset (i.e., 3-month T-bills) that moves over time

Cons—the calculation and understanding of the calculated number are more complex

Sortino Ratio

The Sortino Ratio is another popular method for calculating the risk of an investment.

The Sortino Ratio *combines* MAR (Maximum Acceptable Return) and downside deviation to provide a risk-return metric relevant to investors. The numerator of the ratio has average returns on the portfolio for a given period minus the Minimum Acceptable Return (MAR); the denominator contains risk, defined as the downside deviation on the portfolio. Clear? Clear as mud?

Let's look at an example.

Suppose the average yearly return on a portfolio is 40% and the MAR is 27% (high average returns that you can find with hedge funds). The excess return is therefore 13%. If the downside deviation is 8.7%, the Sortino Ratio is 1.5 (13/8.7).

The ratio answers the question: How much has the portfolio generated in excess of MAR *per unit of downside risk*?

The higher the excess returns above MAR, after controlling for downside deviation, the better it is for the investor. The excess returns will help the portfolio cushion returns lower than MAR and yet achieve the desired value over an investment time frame.

How can you use the ratio? Like several of these formula-driven indicators, the ratio can be initially used for fund selection (like picking a fund with a ratio that has generated acceptable average returns over time).

For many, the Sortino Ratio is more appealing than the seemingly more popular standard deviation because it relates the portfolio's excess returns to the downside risk only. The experts say the ratio is especially useful in measuring risk-adjusted returns for portfolios that have negatively skewed strategies (strategies that carry frequent small gains and infrequent large losses).

Sharpe Ratio

The Sharpe Ratio was created to answer the question: "*Given the same amount of risk,*" which investment provides me with the highest reward?

To do this, the Sharpe Ratio balances the *returns in excess of a risk-free benchmark* with the standard deviation of the return set. The risk-free benchmark is traditionally called the Risk Free Rate (RFR) of return. Generally, the RFR will be the average yield of a risk-free investment (such as a TBill) over the same time span as the investment. While the rate of return on treasuries is low today, if you surf the web, you'll find most examples of calculating the Sharpe Ratio use a 5% number for the RFR of return.

Also, as part of the formula to calculate the Sharpe Ratio is the standard deviation. It's interesting how standard deviation is used in several of the other theories to calculate risk.

Let's go ahead and look at an example of how to calculate the Sharpe Ratio.

The Sharpe Ratio = Expected Return – Risk Free Rate / Standard Deviation

Let's assume that you expect your stock portfolio to return 12% next year. If returns on risk-free treasury notes are, say, 5%, and your portfolio carries a 0.06 standard deviation, then from the formula above we can calculate that the Sharpe Ratio for your portfolio is:

$$(0.12 - 0.05)/0.06 = 1.17$$

This means that for every point of return, you are shouldering 1.17 "units" of risk.

Put another way, if portfolio X generates a 10% return with a 1.25 Sharpe Ratio and portfolio Y also generates a 10% return with a 1.00 Sharpe Ratio, then X is the better portfolio because it achieves the same return with less risk.

The Sharpe Ratio is a measure of volatility, not risk (drawdown). The two are not necessarily synonymous. I like what Sharpe is trying to do. Unfortunately, Sharpe is penalizing managers for upside volatility (gains), which we want all of our managers to have.

Return-Per-Unit-of Drawdown Risk (RUDR)

I'm going to conclude this section of the material with my favorite measurement. RUDR is just what the name implies. It helps investors focus in on the risk of an investment per the expected return. RUDR simply uses drawdown risk (explained shortly) with Rate Of Return (ROR).

After understanding RUDR, I came to the conclusion that advisors and their clients were not picking the "best" investments. What is the "best" investment? It's one with the least amount of risk to achieve the desired rate of return.

Most investors are taking far too much risk to achieve the returns offered by the investment they've picked.

Risk is not something that is easy to quantify (as you've seen with the many different measurements in this section of this White Paper), and so you don't see much statistical data on it; and it's not something many advisors know how to talk about in a quantifiable way with clients.

Everyone knows the stock market is risky (it tanked in 2000-2002 (-46%) and an even bigger way from the highs of 2007 to the lows of 2009 (-59%)).

Is ROR the best way to discuss and pick investments? I don't think so; and, again, that is the reason I wrote this White Paper.

Let me ask you this: Which one of the following is the best investment?

- Investment 1 with a net return of 9%
- Investment 2 with a net return of 9%
- Investment 3 with a net return of 9%

They all had the same return, so how do you choose?

What if the following were the drawdown risk the investor would have to take on to achieve the net 9% rate of return?

- Investment 1 risks -4%
- Investment 2 risks -10%
- Investment 3 risks -20%

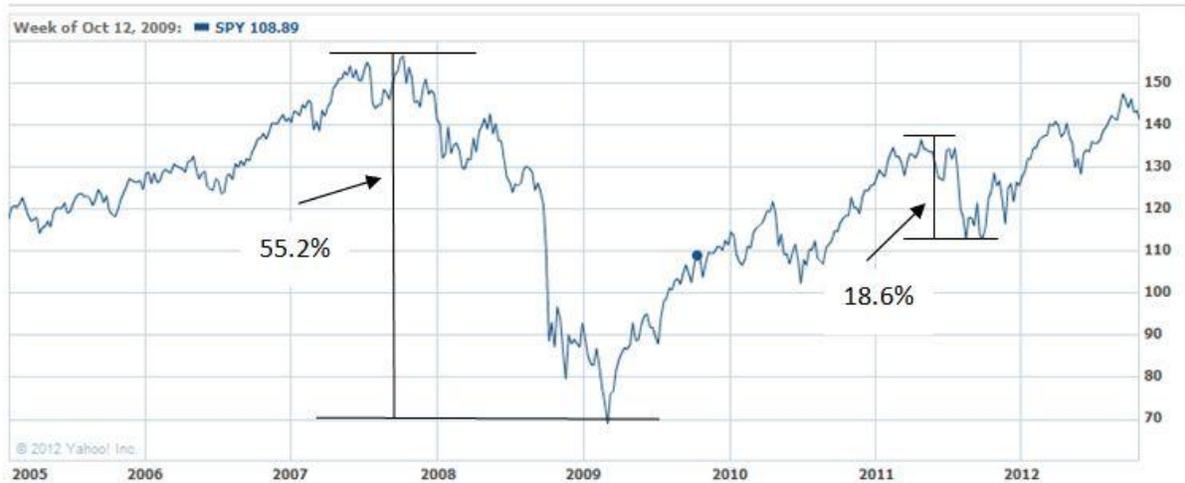
Now, which one would you prefer? Investment 1 with a 9% rate of return that only risks -4% of the investor's money?

But I didn't tell you the type of investment 1, 2, or 3 is. Should that matter? What does it matter if the investment was bonds, stocks, or widgets so long as the RUDR was strong?

This is really the crux of RUDR, i.e., to compare investments based on drawdown risk.

Question: Why should investors take more risk to achieve similar investment results? The answer is—they shouldn't. One reason they do is because they don't use RUDR when comparing investments. Why? Because the advisors pitching the investments don't understand or talk about RUDR.

Defining Maximum "Drawdown"— maximum drawdown of a period of time is defined as the maximum percentage loss from a peak to a trough after the peak. The following chart of SPY (SPDR S&P 500 ETF) between 2005 to the end of 2012 shows the maximum drawdown of this period (-55.2%) as well as the secondary large drawdown (-18.6%) in 2011.



In English please...ok, so, from 2005 to 2012, the S&P 500 generated an average rate of return of 4.9%. To generate that ROR, the investor risked a 55% loss over that time frame.

If an investment professional said that he/she could help you achieve an average rate of return of 4.9% in an investment that put your money at risk to a -55% loss, what would you say? NO WAY!

Also, the problem with losses is that it's not good enough to earn the same rate of return in a positive direction the year following a loss (you can't get back to even). Look at the returns an investor would need to earn after a loss to get back to the same value before the loss (and this does not include fees).

Amount of Loss	% Gain Needed to Recover the following year
20%	25%
30%	42.9%
40%	66.7%
50%	100%

If you started with \$100,000 and had losses of 50%, you would need to generate a 100% gain the next year to get back to even

The numbers: \$50,000 (your account value after the loss) x +50% = \$25,000. This leaves you with a new account balance of \$75,000.

\$50,000 x 100% = \$50,000. \$50,000 + \$50,000 would then get you back to your starting point of \$100,000. This is why it takes so long to get back to even after the stock market crashes.

It is because of the previous chart that drives me to seek out wealth-building tools designed not to go backwards (but still offering good upside gain when the market is moving in a positive direction).

Did you know that 2011 was the **most volatile year** in decades?

In 2011, the S&P 500 was up only 2.11%. However, the maximum drawdown was **-18.6%**. If you knew the maximum drawdown risk in 2011 was **-18.6%**, would you have risked such a loss to generate a poultry 2.11% rate of return? NO WAY!

If a financial planner simply told you the S&P 500 was up 2.11% for 2011, you wouldn't think that was a volatile year. Looking at your year-end account statement you'd only see that 2.11% gain. As such, you might think it could have been a better year but that it was nice to have some amount of positive returns over the year.

But I just asserted that 2011 was a hugely volatile year. Let's look at a chart that will illustrate the volatility.



Overall, the S&P had approximately 13 countertrend moves of approximately 7% or greater. There were six instances where the S&P 500 index had a drawdown of **-7%** or more during 2011.

If **six -7%+ drops** don't get your attention, maybe an **-18.61% drop** will? I think so, and that's exactly what happened in 2011.

Now, we don't know that next year's RUDR is going to be just like we don't know what the market in general, individual stocks, or bonds will do. But we do have very specific data going back 50+ years. When you analyze that data, what becomes clear is that it can be very risky to invest in the stock market.

To get a better feel for how risky, let's look at the drawdown percentages of the S&P 500 going back to 2000 (this data will blow your mind). The following data about "Maximum Drawdown Risk" (MDDR) was obtained from Fasttrack. It's fascinating.

Most investors and even most advisors don't have any idea that the maximum drawdown risk of the S&P 500 on average from 2000-2012 was -13.5% (computed over a 12-month window) and -19% (when computed daily).

Do you think this is good information to have so you can make informed decisions about investing in the S&P 500 or other investments (mutual funds, bonds, REITs, etc.)? Of course, which, again, is why I decided to write this White Paper.

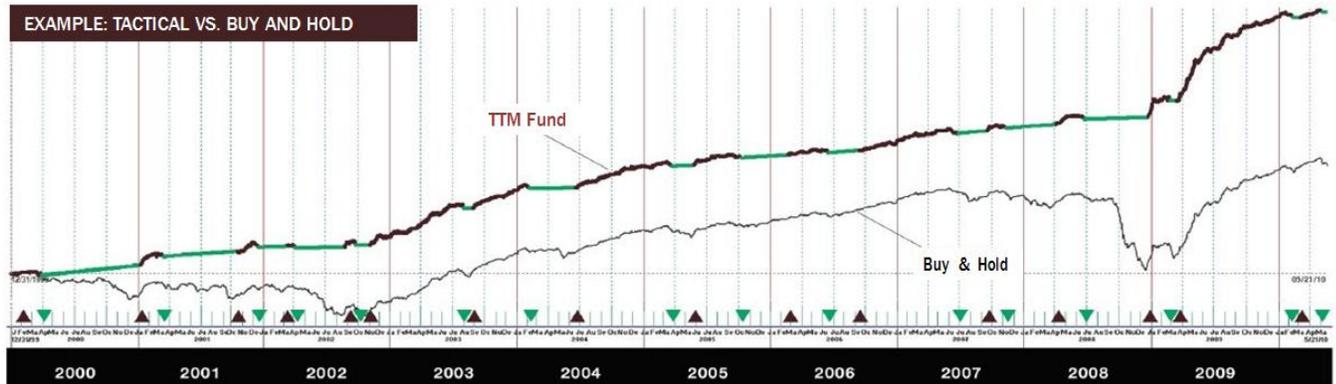
I believe IF investors understood the amount of risk they were actually taking to achieve the investment results they are receiving in most, if not all, of their investments, they would seek other alternatives (which you can learn about by contacting Chuck Price at chuck@pfgwm.com) (one with a daily drawdown risk of only -4% coupled with a 9.93% return for 21 years ending in 2012).

	S&P 500 12-Month Moving Windows Computed Yearly	S&P 500 Daily Computed
2000	-13.12%	-17.20%
2001	-23.12%	-29.70%
2002	-28.36%	-33.75%
2003	-4.08%	-14.05%
2004	-3.31%	-8.16%
2005	-4.00%	-7.17%
2006	-2.88%	-7.70%
2007	-4.85%	-10.09%
2008	-37.66%	-48.76%
2009	-18.18%	-27.62%
2010	-12.80%	-15.99%
2011	-16.26%	-18.60%
2012	-6.60%	-9.94%
Average	-13.48%	-19.13%

If the previous chart doesn't get your attention about how much risk the average investor is taking when in equities, nothing will.

Has a financial planner ever discussed maximum drawdown risk of the investments he/she is recommending to you? The answer for most NO!

Let me conclude this section of the White Paper by showing you a very interesting chart. The following chart should drive home the point about using truly tactically managed (TTM) funds (see page 29 for more information on TTM funds) that looks to avoid/mitigate risk in down markets vs. a buy and hold strategy.



The above chart comes from Fastrack and is for illustrative purposes only.

This is a bit of a manipulated chart in that it starts right when the market is going to crash in 2000. But having said that, who's to say when the next market crash is coming (and that's the whole point with using RUDR when picking investments).

The top line is the TTM from the previous charts. It is a MDDR/low Beta (.03) fund as compared to a typical buy-and-hold, high-yield corporate bond fund.

You'll notice green parts to the top line. The green parts of the line signify when the tactical money manager decided to go to cash (out of harm's way from a mini or significant crash). Going to cash is not something a typical mutual fund can do (most have to stay invested with 80% of their money whatever assets the prospectus defines (stocks, high yield bonds, real estate funds, etc.)). So when the manager of a mutual fund thinks a crash is coming, he/she is not able to go to all cash to ride out the downturn.

This is a keep-it-simple-stupid (KISS) chart. If I asked you which line you liked better when it comes to growing your wealth, what would you say? 100% of all readers paying attention to this material should say they like the top line (and wished they had their money in TTM funds over the last 10+ years).

Question: Are you working with a financial planner that has 1, 2, 3+ fund options that look like the top line? If the answer is no, then I recommend you contact Chuck Price at chuck@pfgwm.com so he can help you learn more about TTM strategies.

Summary on RUDR

My use of RUDR in this White Paper wasn't so you could calculate a ratio or number (as you've learned, ratios like Sharpe are calculated by others). Instead, I used RUDR so those who have not been focusing on maximum drawdown risk can now decide if doing so, when coupled with the ROR of other investments, should be one way or even the preferred way to pick investments.

RUDR and Traditional Mutual Funds

For space purposes, I'm not going to put forth a list of mutual funds with their long-term maximum drawdown risk. I will, however, pick one to look at; and it seems to be a favorite of advisors: America Funds Growth Fund of America A (AGTHX).

The maximum drawdown risk of this fund going back five years is -59.32% (high point of trough 38.38 to the low of 18.11 ($18.11/38.38 = 59.32\%$)). This fund, like virtually all traditional mutual funds, crashed in 2000-2002 and again from the highs of 2007 to the lows of 2009. It has a standard deviation of 15.02 going back 10 years.

The five-year load adjusted average rate of return of the fund at the time I'm writing this (August of 2013) is 5.46% and the 10-year average is 7.73%. It also has a Beta of 1.05 (slightly more volatile than the S&P 500 index).

Using RUDR and comparing this fund to other alternatives, does this fund look like an attractive option? It doesn't even come close in my mind. It's more risky and volatile than the S&P 500 (which is an index that I don't think gives investors anywhere near the RUDR they deserve or should be looking for).

Summary on Risk Formulas/Indicators

It is my hope with this section of the White Paper that you were able to learn about some of the risk indicators that "professional" money managers/financial planners are supposed to use when helping clients pick investments.

You may choose to do more research on one or more of these indicators and choose to use one over another the indicator you like best when determining the most suitable investments for you.

Ideally, the "experts" would recommend that you use multiple indicators to help you pick suitable investments.

My preference is the use of RUDR (which includes maximum drawdown vs. ROR) and the pain index.

Determining the “Best” Money Management Platform

As I stated earlier, everyone who wanted me to get their money management platform out to my e-newsletter list said theirs was the “best.” The problem with the platforms I reviewed is that they all tanked when the stock market crashed in 2000-2002 and again from the highs of 2007 to the lows of 2009 (and there were also many mini-crashes in between).

I will list in the coming pages only a few of the typical money management platforms used by broker dealers, RIAs, and “fee-only” planners. My goal is not to cover every platform for every type of investor. My goal is to discuss some of the more widely used platforms and to point out the pros and cons of each platform from a risk perspective. Doing so will lay the foundation for a discussion about the best overall platform for most investors based on a risk vs. reward point of view (RUDR).

Absolute Return vs. Relative Return—before I list and discuss what I see are the most common investment platforms, it’s important to make a distinction between absolute return and relative return.

Absolute return measures the return that an asset achieves over a certain period of time. This measure looks at the appreciation or depreciation (expressed as a percentage) that an asset—usually a stock or a mutual fund—achieves over a given period of time.

Relative return is different than absolute return because, instead of being concerned with trying to generate return rates within a certain tolerance that the strategy is designed to achieve (which doesn’t mean maximum returns most of the time and are within its risk tolerance), the concern revolves around comparing its returns to other similar investments or a benchmark.

In general, a mutual fund seeks to produce returns that are better than its mutual fund peers in its category and/or the market as a whole. This type of fund management is referred to as a relative return approach to fund investing. As an investment vehicle, an absolute return fund seeks to make positive returns by employing investment management techniques that differ from traditional mutual funds.

Put another way, it’s not that a mutual fund doesn’t care if it has a positive or negative return; but the main concern is beating other similar mutual funds in its category or sector or beating the seemingly elusive benchmark such as the S&P 500. This is relative return.

An absolute return investment is always reaching for positive growth or, in the alternative, avoiding negative years as its mandate and doesn’t concern itself with peers or benchmarks.

Most investors don't know that most mutual funds by their own prospectus are forced to be invested in the stock market with 80% of their money. As such, the investments it picks are important when comparing it to other similar mutual funds which also have to be invested with 80% of their money. Unfortunately, even when the stock market is crashing, these funds have to stay invested with 80% of their money (which is why mutual funds crash right along with the stock market in general and their corresponding index).

As a relative return investment, a mutual fund that lost 50% from the highs of 2007 to the lows of 2009 still could be a highly rated fund with a good reputation because the S&P 500 index was down 59% over the same time frame.

Using that same example with an absolute return fund, if it went negative at all, the chances are that the fund manager would not be happy because the tactical design which many times would allow the flexibility to go to all cash or safer alternate investments may have failed.

It's sort of ironic that a mutual fund seen as a relative return vehicle could be seen as a success with a 50% loss, and an absolute return fund with a loss of say 5% over the same time horizon could be seen as a failure.

These are important issues to think about when trying to pick the right investment.

Active vs. Passive Investing—another important concept to briefly discuss is that of active vs. passive investing.

A simple explanation of active investing is that an investor or fund manager believes they can pick the best stocks in the market that will have the best returns. This also means that the investor or manager believes he/she knows when to get rid of or buy an investment at the right time so as to minimize loss and maximize gain.

Passive investing, on the other hand, is a strategy where the investor or fund manager invests in accordance with a pre-determined strategy that doesn't entail any forecasting or decision making when it comes to the right time to buy or sell.

A good example of passive investing is when someone invests in the S&P 500 stock index. A passive investor thinks that the market as a whole over time will outperform an actively traded platform that tries to "beat the market."

Hybrid Investing—you can be a passive investor and buy actively traded funds. For example, you have a buy-and-hold mentality (one of the platforms discussed in upcoming pages). However, instead of buying and holding the S&P 500 index, you choose to buy and hold a tactically managed (actively traded) fund. The manager of that fund is going to actively trade the fund, but the passive investor simply holds the fund (vs. trying to time when it's best to buy and sell the fund over a short-term basis to minimize losses and maximize gains).

The first four investment platforms I'll discuss in the upcoming pages are what I consider passive investment strategies; and, as such, let's start out with the granddaddy of them all—the Modern Portfolio Theory.

Modern Portfolio Theory (MPT)

This is the oldie but a goodie that many large brokerage firms use. All I had to do was to go to Google and type in the words and all sorts of information came up.

One prominent financial planning website stated the following with respect to the MPT:

According to MPT, a portfolio of non-correlated assets — distributed across the risk spectrum — can lower the overall risk of a portfolio.

TD Ameritrade also came up and had pages of information about this investment platform. To read the full summary, please [click here](#).

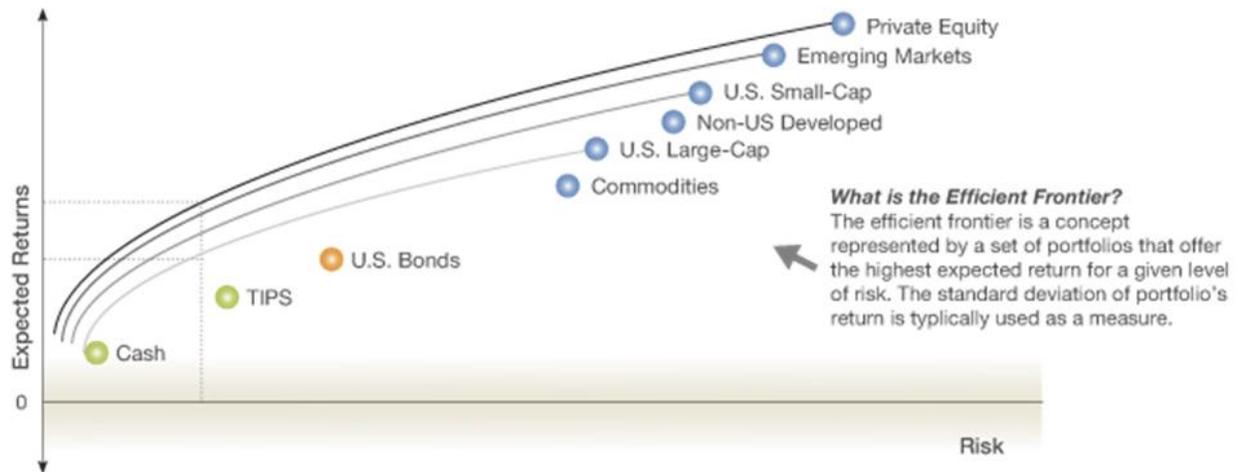
The TD Ameritrade site stated the following as it pertains to the MPT:

If you decide to invest your hard-earned money, you naturally want to minimize your risks and maximize your potential returns. This is the basis of Modern Portfolio Theory (MPT). Developed by Nobel Laureate Harry Markowitz and refined by other noted economists over the years, MPT suggests that you can limit the volatility in your portfolio while improving its performance by spreading the risk among different types of securities that don't always behave the same way.

I've underlined and italicized parts of the above I think are interesting.

So, the MPT is designed to minimize risk and maximize returns by “spreading the risk.”

The TD Ameritrade site goes on to show the following chart as an example of spreading the risk.



In “theory” and to some extent in practice, the above model can work. The investor, if following the above chart, will have U.S. Large- and Small-Cap stocks, Emerging Market stocks, U.S. Bonds, Cash, etc.

The “theory” is that when one sector of the economy tanks hopefully the other will not, and the investor will be partially protected against that loss. Also, when one sector of the economy booms while the others do not, at least the investor will have X amount of the money in the boom investment.

Then the risk is spread between no-risk investments like cash/CDs and more risky international or private equity investments.

The advisor helping clients grow wealth with the MPT will use certain data to choose the investments in each sector. TD Ameritrade states that the standard deviation of a portfolio’s return is typically used as a measure to pick investments (I discuss standard deviation on page 6).

What’s wrong with the MPT? –it depends on whom you ask. There are many critics of the MPT.

The following are some of the reasons certain “experts” do not like the MPT:

-It’s outdated. It’s a theory from the 1950s; and while the market conditions from approximately 1982-1999 made the MPT look like the best way to invest money, if you followed the MPT since then, your returns would not be as promised.

-It's too rigid. The MPT is too focused on diversity for the sake of diversity. There may be times that it is prudent for investors to be so diversified in a portfolio, but the real question is whether it's necessary at all to be this diversified.

Then there is the question about reallocating the portfolio. Who is responsible for that, and how do they know when to reallocate and more heavily weight one sector over another?

In other words, how does the MPT deal with the unexpected (like the stock market crashes in 2000-2002 and 2007-2009 as well as the most volatile year in many years (2011 when there were six mini-crashes within the year))?

-It depresses gains. Because the MPT forces investors to put X amount of their money into fixed- or low-return investments, the overall performance of an MPT portfolio will underperform other investment platforms.

-Drawdown risk of individual investments is all but ignored. For me, this is the biggest problem with the MPT. It is not set up to limit drawdown risk in the manner that I would like to see drawdown risk mitigated. When the platform calls for small cap funds, options, international equities, etc., the drawdown risk of such investments is significant. The MPT seems to offset this by having X amount in fixed return investments, but this is not my idea of mitigating risk in a manner that truly protects investors and helps them achieve their wealth-building goals.

Let me leave you with this thought about the MPT. Do you remember what happened in 2008? There was panic selling that led to widespread liquidation of asset holdings. As a result, equities, bonds, and commodities were ALL pushed down at the same time.

Spreading risk as the MPT suggests left millions of investors crying in their soup. The MPT failed them at the time when a risk-adverse platform was needed most.

In my opinion, portfolios need to be nimble and be able to react quickly to an ever-changing environment; and the MPT simply is not capable of doing so. The MPT forces investors to stay in the market (vs. being able to move into all or mostly cash) and, as so, it is an investment platform incapable of truly protecting investors from market risk.

Buy and Hold

It's tough for a financial planner to really call this an investment platform. If investors want to buy and hold, it's hard for a financial planner to justify an annual fee for services rendered (and, therefore, a strict buy-and-hold strategy is not one usually recommended by a financial professional).

This is more of an investment philosophy of a consumer who doesn't know what to do but has read something in *Money Magazine* or a book telling the reader that the market usually will correct itself; and if you stay the course, you will earn long-term growth.

History has sort of proven this to be true. If you read the 2013 version of the DALBAR Report, you'd know that the S&P 500 stock index averaged 8.21% going back 20 years ending in 2012, 7.10% going back 10 years ending in 2012, and 1.66% going back 5 years ending in 2012.

The 10- and 20-year returns are not too shabby. The 5-year return is not very good.

Similarly, mutual funds that were bought and held over time did on average slightly worse than the S&P 500.

If you read the entire DALBAR Report, you'll find out that the "average" equity investor (mutual funds) earned 20-year returns of 4.25%, 10-year returns of 6.05%, and 5-year returns were -0.84%.

The statistics support the concept that buy-and-hold works. If that's the case, why does the average investor earn returns that are significantly less than what a buy-and-hold philosophy would generate?

It's simple. The average investor doesn't buy and hold (even though they think this is their strategy). They "panic" sell when the market tanks (statistical data backed up in the DALBAR Report). In fact, investors have proven to be terrible market timers and usually get out near the bottom of bear markets.

Even if we give the benefit of the doubt to a buy-and-hold investor, why still does buy and hold not work for most investors?

Let me ask this question: When should a retired person or someone nearing retirement get out of the market (this assumes that a senior/retired person shouldn't be in equities forever)?

For example, say someone was thinking of retiring in 2008 or 2009. When should that person have removed his/her money from a buy-and-hold equity position? The day he/she retires? A year early? Two years early? A year after retirement? At a specific age like age 65?

What if the person did what many people do which is to go conservative right at retirement? If my example person retired in 2009, how did that work out? He/she would have gone through a market crash from the high to the low of -59%.

How did buy and hold work in my example? Just terrible. This example person better go back to work to make up for the lost money from being in the market during a market crash.

This is why using RUDR to help pick investments is vital. It will help investors protect themselves from huge downturns in the market while not suffering much, if any, on the upside.

Indexing

What is an index fund? An index fund describes a type of mutual fund whose investment objective typically is to achieve approximately the same return as a particular market index, such as the S&P 500 Composite Stock Price Index, the Russell 2000 Index, or the Wilshire 5000 Total Market Index.

In layman's terms, an index fund is invested in the companies listed in the index. So the S&P 500 has 500 stocks, and the index would invest in those stocks to achieve its return.

Ever since Vanguard rolled out and started heavily marketing index funds, many investors and, surprisingly many so called experts like John Bogel, the Founder of Vanguard, think this is the only way to grow wealth in the stock market.

Why grow wealth with index funds? There are two main reasons.

1) They are cheap. Like many investors, index funds are cheap. The cost of an index fund is a fraction of what it costs to invest in a mutual fund and much less than that of tactically managed funds.

Many index funds (EFTs) have an asset management fee of less than .15%. The average mutual fund expense is north of 1.25%.

2) Most mutual funds don't beat their corresponding indexes. We've all seen the Motley Fool data that indicates that 80% of the mutual funds (now closer to 85%) don't beat their corresponding indexes. Given that fact, why wouldn't an investor want to use mutual funds vs. index funds?

3) Risk mitigation. Because an index fund invests in a large number of stocks, if one or a handful of the companies in the index don't do well, their poor returns do not significantly affect the returns of the overall index.

It sounds great, right? Low fees, beating mutual fund returns, low risk, etc. But what's the problem with indexing?

Indexing can be seen as a buy-and-hold strategy or can be seen as a market-timing strategy. Either way you categorize it, using index funds to grow wealth has the same problem as outlined in the buy-and-hold strategy. When do you get in and when do you get out of the fund? The average investor has no idea; and as the DABLAR Report indicates, the average investor is terrible at market timing (we are professionals at buying high and selling low).

Additionally, the primary index that is used is the S&P 500 stock index. As you've already read, the average daily maximum drawdown risk of the S&P 500 from 2000-2012 was -19%.

That means the S&P 500 is a very risky investment option for investors. Therefore, one of the primary reasons investors use the index (to mitigate risk) is, in fact, not a valid reason to use indexing to grow wealth.

Fund of Funds

Not surprisingly, I found a blog called buy and hold that had some nice succinct information on the concept of investing using the fund-of-funds approach.

A fund-of-funds investing approach is nothing but a mutual fund that invests in other mutual funds. Just as a mutual fund invests in a number of different securities, a fund of funds holds shares of many different mutual funds.

Fund of funds provide greater diversification than traditional mutual funds because you are purchasing multiple underlying funds when you buy a single fund of funds. So, it is a great way to diversify your investments. Another way to think of fund of funds is a broadly diversified portfolio wrapped in one fund.

On the downside, expense fees on fund of funds are typically higher than those on regular funds because the investor pays a fund expense to the fund manager of the fund of funds; and then there are the fund expenses on all the mutual funds purchased inside the fund of funds.

Again, like indexing, fund of funds makes a lot of sense, right?

You get great diversification by investing not in one mutual fund but multiple mutual funds within the same fund, and you have a manager of the fund of funds who is supposed to know what he/she is doing to pick the funds to be in the fund (and, theoretically, when to drop funds that are underperforming or have a change in style).

But like indexing, the fund of funds approach is a buy-and-hold strategy in form and practice. Most mutual funds by their own guidelines have to stay invested usually

up to 80% in the market at all times (they can't go to cash even if they think the stock market is going to crash).

As a buy-and-hold strategy, the burden again is on the investor to know when the market is going to crash or correct and when to protect from such an event by selling the funds and going to cash. As we know from the DALBAR Report, the average investor does a terrible job at market timing.

Therefore, a fund-of-funds investment approach is not a platform that will help investors mitigate risk and is not one I believe should be used (that is for an investor's money where the goal is risk mitigation).

Tactical Money Management

Tactical money management is simply another term used for active management (vs. passive management). It is not a money management platform you can find on the Internet or in a book like the others in this White Paper.

Generally speaking, passive investing has done better than active investing. Again, 80%-85% of the mutual funds don't beat the indexes. But as we know, those who invest in the index in a passive manner will get slaughtered eventually like the -46% downturn in 2000-2002 and -59% from the highs of 2007 to the lows of 2009.

As most people have found out, "mutual funds" have significant constraints (like being forced to be 80% invested in the market at all times which prevents what I would consider real tactical money management that would allow a manager to go to all cash if necessary).

In the previous material, I discussed four of the more widely used passive investment strategies. There are many I didn't cover. In the next section of this material, I'm going to discuss an investment strategy used mostly by RIAs and IARs.

True Tactical Money Management (TTM)

The strategy I'll be discussing in this section is a run by a professional money manager but it's a TTM strategy with a very specific management style (it does not invest in stocks like a traditional mutual fund). It is an "absolute return" strategy with the following mandates:

-Daily liquidity; Daily transparency.

-Drawdowns: Attempt to limit drawdowns to less than 3-4%.

-Return Objective: Attempt to generate annualized returns of 6-7% above inflation (as measured by 91-day U.S. Treasury Bills), net of management fees, over a market cycle.

The strategy is a trend-following strategy. When their indicators tell them that a downturn is coming, they typically will still capture a little bit of the downturn. This is acceptable when the ultimate goal is to avoid the big downturns that traditional mutual funds and stock indexes are not capable of avoiding. Similarly, when indicators are trending up, the strategy may miss the initial phases of the roll up; but it seeks to capture the majority of the increases.

Normally, getting into and out of a bond contradicts the daily liquidity mandate; but this fund actually goes in and out of mutual funds that invest in high-yield bonds (the mutual fund is liquid in that it can be traded daily).

Of course, my explanation is a very lay-person's explanation; but I think you get my point that this is truly an actively traded fund/TTM fund that has as its mandate an absolute return.

Because of the design, the strategy seeks to limit maximum drawdowns to 3%-4%. That means an investor is risking in a downturn 3%-4% of their invested assets.

As a comparison, the average annual drawdown risk of the S&P 500 from 2000-2012 was -19% when calculated on a daily basis.

I like to live in the real world when I write books and White Papers, so let's see how this fund did going back over its 21-year history (which includes several large or mini-stock market crashes that were facilitated or enhanced by things like: the 1994 bond market crash, 1998 long-term capital hedge fund debacle with Russian ruble, 2000-2002 tech bust, Iraq war, 2008 credit crises, etc.).

The following chart shows the total returns from the TTM strategy net of fees ending in 12-31-12. I've compared the returns to the S&P 500 and to the asset allocation fund used in the DALBAR Report.

	TTM	S&P 500	Asset Allocation Fund
One year	12.35%	16.00%	4.68%
Three years	7.94%	10.87%	2.85%
Five year	14.34%	1.66%	-0.22%
Ten Years	10.37%	7.10%	2.38%
Twenty Years	9.93%	8.21%	2.29%

With more risk you are supposed to generate more returns, right? Otherwise, why take the additional risk? That's the whole point of this White Paper—helping investors understand this dynamic with quantifiable/understandable information so they can start looking more so at drawdown risk and less at total returns with buy-and-hold investments.

As the previous chart makes clear, the TTM strategy that had much lower risk of loss outperformed the S&P 500 and destroyed the asset allocation fund.

Also, the S&P 500 numbers in the previous chart assumed the investor bought and held. In my mind, there is no such thing as a real buy-and-hold investor. As the DALBAR Report indicates, the average equity investor returned only 4.25% over the last 20 years (because they didn't have the wherewithal to hold when the stock market was crashing).

Let me show you a visual that should be quite shocking. The following are numbers from January 1, 1992, to June 30, 2013.



	Return	Cumulative Return	Maximum Drawdown	Pain Index	Downside Deviation (MAR =0%)	Standard Deviation	Sortino Ratio (MAR = 0%)
True Tactical Management	9.91%	662%	-4.75%	0.27%	1.50%	4.97%	6.60
BofA Merrill Lynch Treas. 3-5yr Index	5.64%	226%	-4.15%	0.66%	1.81%	3.62%	3.11
60% MSCI ACWI Index/40% Citi World Gov't Bond Index	6.89%	319%	-35.54%	5.20%	6.61%	10.05%	1.04
S&P 500 Index	8.64%	494%	-50.95%	10.97%	9.97%	14.72%	0.87

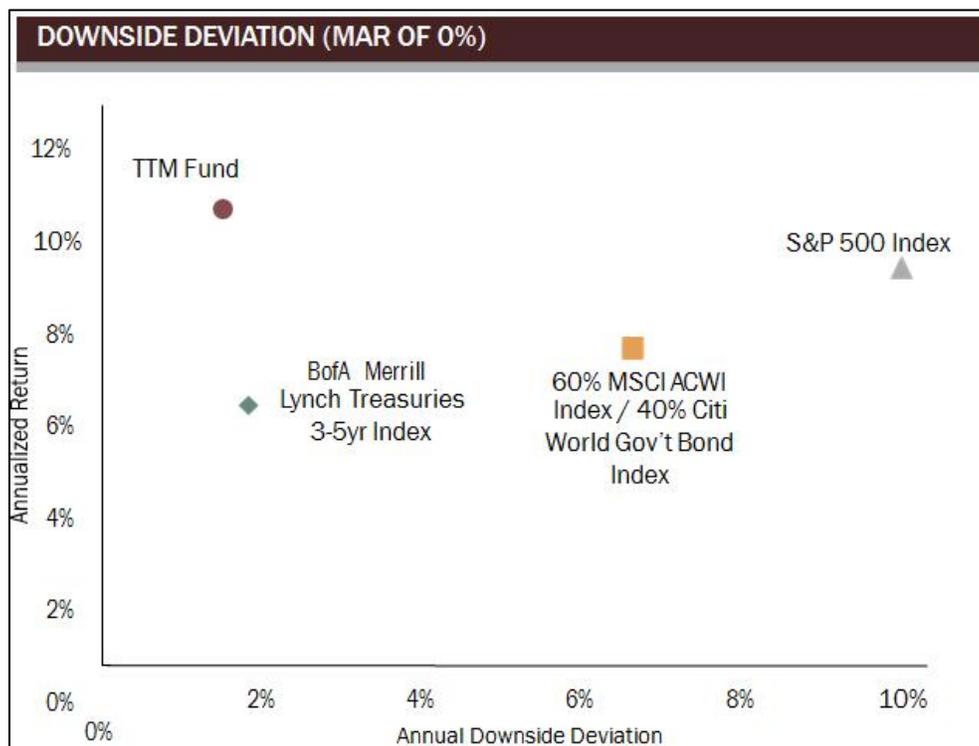
The previous chart is a nice visual comparing the TTM strategy I've been discussing (returns are net of fees), the S&P 500, an asset allocation investment (60% stocks/40% bond), and the 3-5 year treasury index. The chart shows the power of using a tactically managed fund when the stock market is volatile (like it has been for several years and, seemingly, will be for the foreseeable future). This chart gives the benefit of the doubt to investors who would have typically panic sold near the bottom of the various crashes and missed much of the rebound.

The bottom line is that it's easy to invest in the market when it goes on a multi-year run in the positive direction. The key in today's volatile environment is to make sure some of your money is in a fund designed to manage or even avoid risk. My favorite statistic to look at is maximum drawdown (used in RUDR).

What are you willing to risk by having your money invested? Over this 21-year time frame, an investor would be **risking a loss** of nearly 51% of their money in the S&P 500, 35% with the classic 60%/40% mixed investment platform, but only 4.75% with the TTM strategy (with returns that exceeded the much higher risk investment all due to the avoidance of the crashes/downturns in the market).

Let me also state that I don't believe it's fair to compare the TTM fund to the S&P 500. Why? Because the TTM fund has much less downside risk than the S&P 500 or a typical 60%/40% stock-to-bond asset allocation fund.

For example, the TTM strategy has a Downside Deviation* (DD) of 1.5%. The asset allocation fund has a DD in excess of 6%, and the S&P 500 has a DD of 9.97%.



* Downside Deviation: One of the main differences between traditional (relative) return analysis and absolute (all weather) return analysis is accepting the fact that volatility is good, provided it is on the upside. It is similar to standard deviation, except that downside deviation isolates only the negative returns that fall below a defined minimum acceptable return.

The idea with a TTM strategy is that it's one with a professional money management team that is supposed to actively trade the fund to meet certain investment objectives. As such, there is no great need for the investor to actively trade such funds. There are those who want to actively trade actively traded funds, but that would mean the investor thinks he/she is smarter than the tactical money managers.

The bottom line with TTM funds is designed to limit risk: They should be incorporated into an investor's investment portfolio. How much is a judgment call for the investor to determine.

Hedge Funds

Hedge funds aren't really an investment platform, but I wanted to briefly discuss them.

In the hedge fund world, there is a long list of TTM platforms. I've listed just some of the categories and some of the management styles in each category.

Equity Hedge

- Equity Market Neutral
- Fundamental Growth
- Fundamental Value
- Quantitative Directional
- Short Bias

Event Driven

- Activist
- Credit Arbitrage
- Distressed/Restructuring
- Merger Arbitrage
- Private Issue/Regulation D

Macro

- Active Trading
- Commodity
- Currency
- Discretionary Thematic
- Systematic Diversified

Relative Value

- Fixed Income-Asset Based
- Fixed Income-Convertible Arbitrage
- Fixed Income-Corporate
- Fixed Income Sovereign
- Yield Alternatives

The previous list is not complete; and even if it were, this is not a hedge fund White Paper. Therefore, I will only be covering one type of TTM hedge fund for discussion purposes to compare investment risk to investment return.

Ironically, most people think of hedge funds as “risky” investments. They think of managers who are allowed to roll the dice with a portion of an affluent investor’s money. The reality is that most hedge funds have a lower or much lower maximum drawdown risk than the S&P 500 index.

The hedge fund I’m going to discuss is unique in its philosophy among hedge funds. The fund uses the same investment philosophy as the TTM fund discussed in the previous section; however, it’s a “leveraged” version of it. Even though the fund uses the same philosophy; because of the leverage, the fund has a mandate for growth and is considered relative return investment.

-For every dollar an investor invests, the fund is going to borrow two dollars to invest in the same fund. If an investor invests \$250,000, the fund will borrow (non-recourse to the investor) \$500,000 additional to invest on his/her behalf.

-The lending rate on the loan is anticipated to be Libor + 1.5%.

-Interest on the loan will be paid from the fund every month.

This is a new hedge fund; and while traditionally I’m not a fan of back testing (vs. using actual results), since this fund uses a similar investment philosophy (with the addition of leverage) as the TTM strategy that I’ve been discussing that has an actual track record, I feel comfortable doing so.

For the back-tested numbers, I’m going to only go back 10 years. To me, the volatility of the last 10 years is something I think we’ll see much more going forward vs. the “old days” of steady growth (in other words, I think in the future we’ll continue to see wild swings in the market on a monthly and yearly basis).

How well would an investor have done going back the last 10 years with this hedge fund? The net return of the fund (minus costs of lending) would have averaged 27% a year.

While you may think that’s middle of the road for a hedge fund which is supposed to be a high-growth platform, it’s really quite stunning considering the underlying investment philosophy is to avoid losses first vs. reaching for gains at the risk of losses.

Maximum drawdown risk of the hedge fund—the MDDR for the hedge fund is increased over the non-hedge fund version of the strategy due to the leverage. It seeks to achieve between maximum drawdown of between -10% to -12% vs. -4% with the non-leveraged version of the strategy. This is still significantly less than the average annual MDDR for the S&P 500 (-19%) going back to 2000.

Investing Nirvana?—well, that’s a bit of an overstatement; but ask yourself the following questions:

- 1) Would you rather be in an investment with a RUDR of -10% to -12% or -19%?
- 2) Would it help if the returns from the -10% RUDR investment were higher than the returns from the -19% RUDR investment?
- 3) Would you like the opportunity to invest in a lower RUDR investment where the net returns over the last 10 years would have been 18.1% (the S&P 500 has averaged only 7.1%)?

The answer most investors would give to the previous questions is fairly obvious.

In the context of investment risk vs. investment return, this hedge fund helps facilitate a meaningful discussion that focuses on the risk taken for the reward of an investment (which is the reason I wrote this White Paper).

This White Paper isn’t meant to give definitive answers on the “best” way to invest, but instead my hope is to have it be specific/detailed enough to drive investors to think more critically about the investments they choose.

If you would like more information on the new hedge fund discussed in this paper, contact Chuck Price at chuck@pfgwm.com.

Summary on Investment Platform/Philosophies

I’m not a big fan of the way business has always been done in the financial services field.

Asset allocation (MPT) is not my idea of a way to both avoid risk and generate the expected returns an investor is looking for.

Buy and hold sounds good in theory; but as the DABLAR Report indicated, the average investor is incapable of buying and holding (they instead panic sell near the bottom which costs them significant returns in the short and long term).

Buy and hold is still a market-timing platform where either the investor (who is definitely not qualified to decide when to sell) or some local money manager/financial planner is deciding when to sell. No offense to the local money manager; but if he/she were that good, he/she would be running hedge funds or true tactically managed funds.

I'd prefer to leave the buy-and-sell decisions to a true tactical money manager and, preferably, one who has an actual track record of successfully being able to do so. Ideally, I'd prefer to see investors use tactically managed funds that have a low maximum drawdown risk coupled with a successful track record of sustained positive growth.

Topics not Fully Covered in this White Paper

Taxes

I have not discussed how taxes can reduce the net return of the funds discussed in this White Paper. Most of this White Paper focuses on traditional mutual funds (which have fairly high annual taxes as the funds buy and sell stocks), tactically managed funds (which will also have high taxes on the growth due to the ability to sell quickly when indicators point towards a market downturn), and the S&P 500 index (which have lower taxes if the investor doesn't "panic" sell often when the market goes through what are ever increasing mini-crashes in the market).

My point is that taxes need to be taken into consideration when determining the expected rate of return of an investment (needed when using RUDR to help pick suitable investments).

You'll be happy to know that the tactically managed strategy I discussed in this White Paper can be purchased by investors in a no-load variable annuity. The only additional fee for using the VA is \$20 a month (and there is no surrender charge). To learn more about tactically managed no-load annuities, contact Chuck Price at chuck@pfgwm.com.

Fixed Products

This White Paper deals with securities, not fixed products. Having said that, fixed products are near and dear to my heart; and I believe they can fulfill the conservative portion of an investor's portfolio better than the alternatives in the marketplace.

Fixed Indexed Annuities (FIAs)

I briefly alluded to FIAs in this White Paper when indicating that I wrote a 33-page White Paper comparing FIAs with guaranteed income riders to VAs with guaranteed income riders. The conclusion of that White Paper is that, if the client is mainly interested in the highest guaranteed income for life, an FIA will be the best option.

What kind of guaranteed income is available in FIAs today? The products are constantly changing as the 10-year treasury goes up and down, but today purchasers can receive a 6-8% guaranteed return (on an accumulation value) coupled with a guaranteed income for life of 5%-5.5% at age 65 (higher if older/less if younger).

You may be thinking to yourself that, if an investor can receive a roll-up rate of 6-8% (non-walk away amount) coupled with a 5.5% income at 65, why wouldn't the investor want to allocate money to an FIA? The answer is they might.

However, FIAs are not a substitute for money an investor has earmarked for growth. FIAs are not great growth tools where after 5, 10, 15, 20 years you have a large amount of money sitting in the annuity ready to be used for whatever purposes the investor would like. FIAs should grow the actual account value over time of between 2%-6%. In today's low interest rate environment, it's closer to 2%-3%.

Yes, the guaranteed income riders can be very strong and appealing; but there is a lack of liquidity with these products that needs to be taken into consideration.

The bottom line is that I like FIAs and FIAs with income riders so much that the first 50% of my book Retiring Without Risk focuses on the benefits of using FIAs to grow and protect wealth for retirement.

Cash Value Life (CVL) Insurance

If you've ever run into a Northwestern Mutual, Guardian, NY Life, etc., type of agent, undoubtedly, you have ended up having a discussion about using Whole Life (WL) as a wealth-building tool.

In general, and as it applies to all cash value life insurance, the benefits are pretty simple. Cash in a CVL insurance policy is allowed to grow tax free and be removed tax free via policy loans in retirement (or earlier if needed).

Taxes can take a huge chunk out of an investor's return, and so to have a tool where money can grow tax free and be removed tax free is very appealing.

The problem with WL is that it's a very marginal growth tool due to the conservative nature of the way cash grows in the policy. WL policies have guarantees which sound great, but they come at the expense of depressed returns.

My preference, if a client is going to build wealth using CVL, is to use what I call an Equity Indexed Universal Life (EIUL) insurance policy. It has the following characteristics:

1) Gains on cash in the policy are tied to a measuring stock index (typically, the S&P 500). Without going into detail, EIUL policies have caps on the returns. The caps range from 10%-15% annually.

Therefore, if the measuring stock index has a return in any given year of 20%, if the EIUL policy had a cap of 14%, the return credited to the cash in the policy would be 14%.

2) **No risk of loss**. The cash inside the policy can never go backwards due to stock market declines. In a negative- or zero-return year, the cash in the policy will still go backwards slightly as costs of insurance and administrative costs are taken out of the policy.

3) **Tax-free growth** and **tax-free removal** from the policy through loans. Like any CVL policy, money is allowed to **grow without taxes**.

4) **Free long-term care, chronic-, and critical-illness riders**. If the owner of an EIUL policy ends up in a nursing home, they will receive money tax free from their life insurance policy to pay for some of their care (it's essentially the payment of the death benefit early to pay for LTC).

What is a realistic return on cash inside an EIUL? The following are the stats from my favorite EIUL (Retirement Life™). To learn more about Retirement Life™, please contact Chuck Price at chuck@pfgwm.com.

Years	Worst Historical Returns	Historical Return 75% of the time	Historical Return 50% of the time
5 Years	3.04%	6.27%	8.15%
10 Years	4.33%	6.90%	8.95%
20 Years	7.38%	8.29%	8.66%

How many investors would have been happy with a 7.38-8.66% rate of return over the last 20 years? If you read the DALBAR Report, the answer is most investors would have very much liked the above-listed rates of return.

Keep in mind that with CVL, when \$1 in premium is paid, \$1 does not end up as the cash value in the policy from day one. There are costs of insurance, administrative costs, etc., in the policy. You can use a high cash value rider in an EIUL (and there are pros and cons to doing so), but the average policy in year one will have a cash account growing that equates 85-92% of the premium paid.

The costs in any life policy are significant; but when you factor in tax savings on growth and the ability to take money out of the policy tax free, CVL stacks up very nicely against the average rate of return of traditional mutual funds when taking into consideration what can be withdrawn from a mutual fund in retirement after tax vs. what can be removed tax free from an EIUL policy.

I think so much of using EIUL policies as a wealth-building/retirement tool that it takes up the first half of my book Retiring Without Risk.

Summary on Fixed Products

I very much like some of the fixed products in the market place—life mutual funds, stock indexes, tactically managed funds, etc. An investor has to figure out what tools are the best ones to help them grow wealth in what in my opinion should be the least risky manner possible to reach their financial objectives.

Because there is no investment risk with fixed products, they can and probably should make up a portion of most investors' portfolio of assets.

The RIA I recommend uses a three-bucket approach to investing (conservative, moderate, and high-risk buckets). Their tactically managed funds make up the majority of the investments of their clients, but the conservative bucket is traditional FIAs or EIULs (and, of course, the high risk would be hedge-fund type investments).

Unfortunately, most securities licensed advisors don't know much, if anything, about fixed products and most certainly don't know that FIAs have better income riders than VAs and that EIUL policies, when funded right, can be much better retirement tools than traditional mutual funds. It is for this reason that I wrote my book, Bad Advisors: How to Identify Them; How to Avoid Them.

Summary on White Paper

When I sat down to write this White Paper, I figured it would be 10-15 pages long. After doing my research, I sat down; and now that I'm done with it, I think it could easily be another 20-30 pages long.

As my parents have aged and as I've heard countless stories about investors losing 50% or more of their retirement nest eggs in the stock market because of bad advice from some local financial planner, CFP, money manager, etc., I am determined to help change the discussion about how to look at risk vs. investment return.

It's not enough to look at a 5-, 10-, 20-year track records of an investment. Looking at year-end numbers isn't enough. In today's wickedly unpredictable stock market, it is more important than ever to use investments that can identify market troubles and avoid mini and major crashes in the stock market.

The old days of buy and hold are over (or they are over for anyone who wants to invest in the stock market and mitigate risk).

This is a new era that requires new and better models to help quantify risk so a full-disclosure discussion about risk can be undertaken.

I believe advisors must use indicators such as maximum drawdown risk and the pain index when helping clients pick their investments. If you are not using an advisor who uses these indicators, I strongly recommend you contact Chuck Price at chuck@pfgwm.com.

Risk-per-unit-of drawdown risk (RUDR) is my preferred concept that I think advisors and investors should be using to discuss the suitability of an investment.

If there is a new golden rule of investing, it should be the following:

***Thou shall take no more risk than is necessary
to meet my investment objectives***

Investors who understand this will be able to choose suitable investments and should be well positioned to reach their financial planning goals.

Disclaimers

Ironically, the main disclaimer for this White Paper is that I am not securities licensed (and this is a White Paper on investment risk).

My research for this White Paper consisted of weeks of intensive research reading information provided by some of the top experts in the securities industry as well as having help from a handful of tactical money managers.

While my research felt like I was taking a drink through a fire hose (meaning an awful lot of material in a short period of time), the bi-product of having a non-securities licensed person write this White Paper is that it should be much more understandable than if an industry insider wrote it.

About the Author

The following is an abbreviated summary of my background. I'm a commercial pilot who doesn't fly for a living. When I graduated undergrad, I couldn't find a job so I went to law school. I graduated from Valparaiso University School of Law in 1996, and I'm licensed to practice law in Michigan and Indiana.

In 1998, I obtained my property, casualty, life, and health insurance licenses; and I decided to specialize in giving advice to affluent doctors who lived in various parts of the country.

In 2005, I decided to give up my company where I had personal clients and started The Wealth Preservation Institute (WPI) (www.thewpi.org). The WPI is the only educational company in the industry that teaches advisors how to give the "best" advice to "affluent" clients (asset protection, income tax reduction, income tax planning, corporate setup, international planning, etc.) and to clients in need of Medicaid Planning (help with Medicaid spenddown and recovery avoidance).

I've written five books: The Doctor's Wealth Preservation Guide; The Home Equity Management Guidebook; The Home Equity Acceleration Plan; Retiring Without Risk; Bad Advisors: How to Identify Them; How to Avoid Them (you can click on each of them to learn more), and I'm working on a new book, Peace of Mind Planning: Risking Your Assets is No Longer an Option, that I hope to have out before the end of 2013. If you are interested in obtaining a copy when it comes out, contact Chuck Price at chuck@pfgwm.com.

I hope you find the White Paper helpful; and if you have any questions or comments about this White Paper, feel free to contact Cuck Price at chuck@pfgwm.com.

If you want to apply this information to your personal portfolio and reside on the west coast contact Chuck Price at chuck@pfgwm.com or www.pfgwm.com 877-50-PRICE (77423).