

 **Numbers**

Are These Returns Realistic?

by TCI Investment Committee

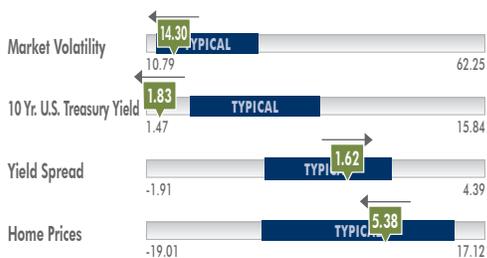
In the last newsletter, we explored different compensated risk factors in the stock market and how they performed in 2015. Of course, history has a great way of explaining what has happened, but what will happen and how it will relate to your investment portfolio is far more compelling. In the end, there is one question that matters and you may have even asked it yourself: “Are those projections realistic?”

The underlying concern — and it is a valid one — is that future market returns will not reflect historical returns. After all, most long-term plans are predicated on the idea that in return

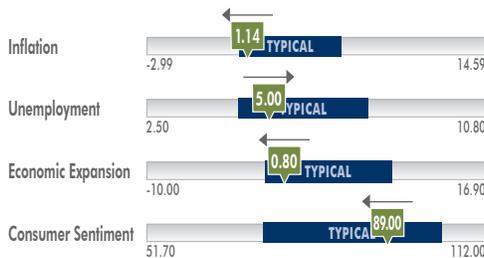
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Are these returns realistic?

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for taking on greater short-term volatility by investing in the stock market we will receive a return premium over time. However, the magnitude of this premium, can make a huge difference in long-term projections. For example, a portfolio returning around 8% would have nearly twice the wealth after 30 years compared to a portfolio returning 6%.

In addition, we all have a recency bias. Recency bias means we easily recall those things that have happened most recently and we think those recent trends and patterns will continue in the future. As a result, the last fifteen years of negative headlines weigh heavily in our minds. This is especially true for younger investors who did not get to experience the 80's and 90's and have the Great Recession as their model for how markets work. To help us with this perspective let us revisit a few historical numbers.

Figure 1 shows both the average 20-year period of actual and real returns for the S&P 500 and a globally diversified portfolio of stocks (World Equity Portfolio). Real returns are simply the stock market return minus inflation — the number we really care about. Stock returns may be lower in the future but if inflation stays similarly low we are still happy. For example, long-term inflation is around 4%, so long-term stock return averages of 9% would have produced real returns of 5%. In Figure 1 the third and fifth columns show the percentage of historical 20-year periods that produced actual returns under 9% and real returns under 5%.

Returns of 8-9% projected for an all-equity portfolio are significantly lower than what we have experienced for most periods in history. A common cause for doubting future returns comes from a familiarity with the S&P 500, which has struggled since 2000. Given the S&P 500 is represented by just one asset class (U.S. large stocks), concentrated periods of underperformance are not unexpected. The point of revisiting historical numbers is that they can aid in removing some of our recency bias, but the concern still persists that what is past is past and we are now in a "new normal" where market returns will be much lower.

To answer that, we revisit the fundamental rule of finance: risk and



return are related. In essence, this means that investors demand and expect there to be a long-term reward for holding assets that exhibit extreme short-term volatility. It is our view that this risk/reward relationship persists — cannot go away or people would have no incentive to hold volatile assets. Having stated that, there is no fundamental rule that says the reward must be of a certain magnitude. Thus, there have been many models developed in an attempt to project what premium an investor should expect for taking on short-term volatility.

Historical returns are one of the most widely used metrics and show an equity premium of around 8%. Some projections use Dividend Discount Models which assume that the value of stocks are determined by their future cash flows — these estimate the equity risk premium to be closer to 5% (this value, unfortunately, is highly sensitive to projections of future dividend growth which is challenging to estimate itself). Cross-sectional regressions (12% estimate), time-series regressions (7%), and simple surveys (6%) are all different ways of estimating the future equity risk premium as well. In the end, the best we can say is that we are 95% confident that the future equity risk premium will be somewhere between 4%-12%. It is not near the certainty one would hope for, but that is where the importance of planning comes in.

We know historical returns but we cannot know the events that will occur, which will affect future returns. The reactions we have in the face of those events are what we can control. ▲

FIGURE 1

	Average 20-year period	% of 20-year periods under 9%	Average 20-year period minus inflation (real return)	% of 20-year real returns under 5%
S&P 500	11.16%	27%	7.18%	27%
World Equity Portfolio	13.31%	7%	9.18%	5%

The TCI Investment Committee conducts on-going research and analysis that guides portfolio construction for TCI clients.



The Rebalancing Act

by Sam Van Denburgh, CFP®

We all know one of the key ingredients to investing is to buy low and sell high; however, as investors, we are hard wired to follow trends. There is an innate desire to buy more of our winning investments and sell the losers. So how do we remove our emotions from the equation when making portfolio decisions? By following a strategic rebalancing strategy.

As investors, we select a particular portfolio allocation based on our goals, time horizon and risk tolerance. At any given time the target asset classes in our portfolio are going to be off due to daily market fluctuations. However, you do not want market movements to arbitrarily change your portfolio risk level as higher-risk investments that have higher long-term returns overweight lower-risk lower-return positions in your portfolio. In order to maintain your desired level of risk and expected return, you have to rebalance and take advantage of sell-high buy-low opportunities.

Some people choose a particular time horizon to rebalance — monthly, quarterly, or annually. But in a globally diversified portfolio you have a variety of asset classes that do not necessarily appreciate and depreciate over the same time intervals. Instead of focusing on frequency at TCI, we allow asset classes to drift within tolerance bands. Each asset class in your portfolio has a target allocation and we maintain a 20% relative tolerance band around each asset class with a hard cap of an absolute 5%. For example, if we have a 10% target to U.S. Small Cap, we would allow that to drift between 8%-12%. If an asset class has a 30% target, we would cap the drift at 5% such that we would take action when that asset class drifts outside of 25%-35% of your portfolio even though that is less than a relative 20%. By setting these thresholds on a relative basis, we are able to sell off part of an asset class in a strong run and purchase an asset class that is underperforming relative to others. If an asset class grows within its tolerance bands, no rebalancing of that particular asset class occurs.

Rebalancing is important in ongoing portfolio management. And even though it can be counter-intuitive for many investors, it allows you to strategically take advantage of sell-high buy-low opportunities. In addition, it removes your inherent emotions as an investor from the equation. ▲

Sam Van Denburgh, CFP® is a Support Advisor in the Scottsdale office and works with ASPIRE clients.

ASPIRE is a program offered by TCI Wealth Advisors that provides young professionals access to sound financial planning and education in order to plan for long term financial success. To learn more about the program, visit www.aspirebytci.com.





How good are your assumptions?

The science of investing has come far since Harry Markowitz first published his paper on Diversification and Portfolio Risk in 1952. It continues to evolve because future variables are unknown and, therefore, unmeasurable. Whereas in physics, if we know all of the variables (the velocity of the ball off his hand, the launch angle, etc.) we can perfectly predict the motion of a basketball shot by Steph Curry. This does not hold true in the science of investing as it contains variables that are both imperfect (just because a stock has behaved in a certain way in the past doesn't mean it will continue to do so) and too numerous (thousands of global events can affect a stock's price) to make perfect predictions.

Thus, we are left with a baked-in market uncertainty when it comes to planning our future. The sooner this is realized, the sooner the planning process becomes simpler. The greatest mistakes in long-term planning happen when one makes definite assumptions that will inevitably change.

The easiest way to demonstrate this potential problem is in financial projections themselves. There have been numerous studies seeking to find the "optimal" portfolio — that is, the perfect long-term portfolio that will maximize return and minimize volatility. Indeed, this is what any portfolio manager should strive to achieve. The fallacy lies in projecting the past (where we know for sure what the optimal portfolio was) and continuing to assume the same reality will happen forever. I am not suggesting one should necessarily deviate far from historical returns when projecting the future, but we must be careful and leave room for error around the projections.

For example, let us assume that we expect future returns on a 60% equity/40% fixed income portfolio to be 8%; roughly what they have been historically. A retiree with

a \$1,000,000 portfolio could withdraw \$80,000 per year indefinitely in the most simplistic model that assumes the average historical return year after year. But what if our simplistic return projections are off by 1% in either direction?

It is the difference between having that same portfolio run out of money in about 30 years (at 7% return) or having that same portfolio grow to nearly \$2,500,000 despite the withdrawals over 30 years (at 9% return). For a 1% error to be the difference between leaving a large portfolio or running out of money should give us pause.

We know that markets do not return their historical average year after year. When we incorporate even small amounts of volatility into the model, the \$80,000 withdrawal rate becomes much less sustainable even when we hold the long-term average steady. As before with our simple average, any error we make

in our estimate of volatility can also result in dramatically different outcomes. In fact, simply introducing a second variable to our model increases our potential for error threefold (with just one variable we could be wrong once; with two variables we could be wrong three times — wrong about just the return, wrong about just the volatility, or wrong about both). This muddies up our projections significantly and this is before even contemplating the possibility that our hypothetical retiree will have some variance in their need for withdrawals over the next 30 years.

Thus, we arrive back at the Voltaire quote that kicked this off. At first, it is a very uncomfortable position to realize that your projections about the future will be wrong. (In fact, the only certainty is that your projections will be wrong by some degree — damn you irony!) Accepting and becoming comfortable with uncertainty will open up some intriguing planning opportunities and enhance your pursuit of happiness. ▲

“Doubt is an unpleasant condition, but certainty is absurd.”
—VOLTAIRE

My Chiropractor, and the Fiduciary Standard

by *Lori Booth-Houle, CPA, CFP®*

I trust my chiropractor more than any of my other medical practitioners. Thanks to his wise counsel and treatment, he cured my lifelong bouts of plantar fasciitis (chronic heel pain) when no one else, not even my orthopedic surgeon, could. Even now, I still visit him for “maintenance” to my ankles, feet and back, and credit him with giving me back my hiking life.

Like many other chiropractors, mine also sells nutritional supplements as part of his practice separate from his advice and treatment. What if he layered product sales onto his trusted medical advice? In our existing relationship of patient and doctor, there is a reassuring transparency — he gives me his best advice and treatment, I pay him a standard fee, and there is no hidden agenda or conflict of interest. If he ever advised me to take specific supplements that he also sells (he hasn't), how would I know that advice was as pure as the medical treatment he has provided me?

This conundrum of conflict has a counterpart in the financial advice industry. As a client, your relationship with your financial advisor is likely one of the most intimate in your life, given the details we need in order to provide our best thinking. Within that trusted relationship, don't you deserve an advisor who will put your best interests before their own profits, charge a transparent fee, and disclose all the information needed to ensure you are receiving appropriate and unbiased advice?

This is the rationale behind an April ruling by the Department of Labor, which commits financial professionals to a “fiduciary” standard when giving advice on retirement plans (but unfortunately does not yet extend to taxable accounts). The fiduciary ruling is complex, but in summary, it requires advisors to put their clients' best interests before their own, and avoid prohibited conflicts of interest.

Historically, brokers have been subject to a lower “suitability” standard, which does not have the same investor protections as the fiduciary standard. Commissioned brokers will be heavily impacted by this new rule. Registered Investment Advisors such as TCI, however, have always been subject to the fiduciary standard. Since TCI was founded in 1991, we have consciously chosen and embraced this higher level of responsibility and care for our clients — it's part of our DNA.



Motivational speaker Tony Robbins produced a recent YouTube video in which he interviewed 27 passersby on Wall Street. He asked: “What are the fees you are paying in your 401(k)?” and “What is a fiduciary?” Of the 27, not one knew what their 401(k) fees were (according to Robbins, 67% of Americans think they pay no 401(k) fees, but in fact, the average annual fee is 3.12%), and only one knew the definition of “fiduciary.”

We encourage you to learn more by going to our website and reading the article titled “What is Fiduciary Advice?” You will then be one of few Americans who know the meaning of a role we at TCI are proud to embrace — that of “Fiduciary.” ▲

Lori Booth-Houle, CPA, CFP® is an Advisor and Shareholder in our Scottsdale office.

FOCUS HERE!

WHAT TO SPEND YOUR TIME AND ENERGY ON?



by Sam Swift, CFA, CFP®

As is clear from the Numbers and Economic Commentary articles in this newsletter, it is highly improbable that our forecasts for the future will prove completely true. Despite the evidence and research that lead us to our most educated guesses, we will inevitably be wrong about something. So how do we cope? What should we pay attention to? As I see it, we have control over certain parts of our lives and we do not have control over certain parts. Furthermore, there are things that actually matter to our long-term plan and things that don't. From this, there are four subcategories where we can choose to spend our energy, or not.

1 Things that don't matter and that we can control

There are nearly an endless number of things that we can control, but that do not matter to our long-term plan: my fantasy football lineup, the clothes I put on each day, where I go to lunch, etc. Some of these things may matter greatly in other parts of our lives (again, I come back to my fantasy football lineup), but they are irrelevant towards our long-term financial success. In that context, we don't need to devote much energy to them.

2 Things that don't matter and that we can't control

This category seems like the simplest to dismiss, but it is actually one that we collectively lose the most sleep over. We know that we can't control the daily fluctuations of the markets or the daily financial news, yet many let it affect them negatively. Reacting to the randomness of daily market returns is one of the biggest wastes of time and energy because they don't matter!

3 Things that matter, but that we can't control

Long-term market returns and government policies such as taxes are in this category. Such returns are critically important to a long-term financial plan — we count on achieving a certain rate of return on our savings in order to achieve our ultimate goals. Unfortunately, we have no control over what the markets may do in the future (see "Are these returns realistic?"). Nowhere is it written in stone that equity markets must average 8% over your investing lifetime. Tax policy is another significant factor that can affect our plans. Not only can taxes affect the amount we save, it can also affect how we save in terms of the different accounts we utilize. A change in tax policy in the

later stages of your plan could have dramatic effects for better or worse.

With reason, this category can cause extreme anxiety. We all probably know someone who hates flying (or we are that person). Though flying is statistically one of the safest forms of travel, the lack of control over something that matters greatly (your life) can be frightening. Nevertheless, it is quite wasteful to spend much time worrying about this category. You can spend time on preparation in the event things do not go as planned. Spending energy agonizing over the outcome only serves to pull you from what matters. And thus we arrive at the big one...

4 Things that matter and that we can control

The biggest factors relating to our long-term financial success are as follows:

- how much we save, how much we spend
- when we retire
- our portfolio allocation
- our behavior.

The good news is that we have full control over each one of those.

It is silly to have your happiness be dependent on things you cannot control or on things that do not really matter, but I do realize how easy it is to get caught up in it — I am a Kansas City Chiefs fan after all. So if something is weighing you down mentally, remember to step back and ask two questions: **does this actually matter to me and do I have control over the outcome?** You can calibrate your devotion of time and energy accordingly and I promise it will make your pursuit of happiness that much more successful. ▲

Sam Swift, CFA, CFP® is an Advisor and Shareholder in our Tucson office. He is currently the director of the ASPIRE program (<http://aspirebytci.com/>) for young professionals and a member of the Investment Committee conducting research and analysis that guides portfolio construction for TCI clients.



John Stephens,
MD, CFA, CFP®, MBA



Doug Nelson, CPA, PFS

We are pleased to announce that John Stephens, MD, CFA, CFP®, MBA has been appointed Chief Executive Officer of TCI Wealth Advisors, Inc. John has been an advisor with TCI for over 20 years. He most recently served as Chairman of the TCI Board of Directors and will continue in his role as a client advisor. John is based in our Tucson office. As CEO John provides strategic leadership, vision, planning and broad executive management to achieve the firm's strategic objectives. John has always played a significant role in TCI's success and has helped shape and evolve TCI into the wealth management industry leader it is today. He has a passion for life-long learning and we are excited for John to lead TCI.

With John transitioning into the CEO role, Doug Nelson, CPA, PFS, has been elected as the Chairman of the TCI Board of Directors. As Chairman, Doug is responsible for leading the Board of Directors and guiding the vision of the firm. Doug is a co-founder of TCI and leads our Santa Fe office.

TCI leaders and staff will continue to embody our core tenets: clients' interests first and foremost; the importance of comprehensive financial planning; the value of independence; a fee-only fiduciary approach; and the benefits of evidence-based investing. Please join us in congratulating John and Doug on their new roles. ▲

Reminder —

TCI is closed Monday, July 4th in observance of Independence Day and September 5th for Labor Day.

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TCI NEWS

TCI Foundation launches 3rd Decade Program

Financial security is as dependent on good financial habits and decisions as it is on income. Too often we get a late start on the right path. The 3rd Decade program through the TCI Foundation targets young adults (in their 3rd decade) with a two-year program of financial education, one-on-one advisory meetings and inspiration to start early to build their financial security. Classes start quarterly, are limited to 20 people and currently held in Tucson. Visit tci-foundation.org for more information. The TCI Foundation, a 501c3 non-profit affiliate of TCI Wealth Advisors, provides no-cost education and financial advice to individuals just starting to save and invest. ▲



3rd Decade
by  **TCI Foundation**



TCI 2nd Annual Life Strategy Conference

November 10, 2016 • Scottsdale, AZ

TCI is hosting the 2nd Annual Life Strategy Conference on November 10th in Scottsdale, Arizona this year. The full-day event helps attendees make a more conscious connection between the way they understand their happiness and the way they think about their money. If you or someone you know is interested in attending the conference, visit lifestrategybytci.com/2016-life-strategy-conference for more information, or reach out to your advisor. ▲

 **LIFE STRATEGY**
by **TCI WEALTH ADVISORS**