

As with many things in life, theory and reality can differ significantly. This concept definitely holds when you look at investment theory and practical application. While theory assumes perfectly rational markets and market participants, the world is anything but rational. Two massive bubbles in the last 16 years is proof that investors will do crazy things at times. Over the last 25 years we have refined our investment methodology to adapt to changing markets. There are three key components to our strategy:

1) **Modern Portfolio Theory**

We take to heart the tenants of Modern Portfolio Theory, especially the idea of diversify, diversify, diversify. Diversification is about as close to a free lunch as you can get. A concept where one plus one equals possibly two-and-a-half. What this means is that our portfolios will own a number of asset classes at one time, especially asset classes that don't move together in tandem. Furthermore, we build portfolios across the risk spectrum, with more aggressive portfolios tilting towards equities and more conservative portfolios tilting towards bonds.

2) **Tactical Asset Class Shifts**

Investment theory would have you simply buy combinations of asset classes that lie on the efficient frontier consistent with your risk tolerance. The implication is that you can safely walk away for the next few decades and return with all your problems solved. But reality can be very different from theory. For example, look a table below. From 1990 to 1999 the markets acted as you would pretty much expect. The total return for the S&P 500 and the Barclays Aggregate (a bond index) over this period was +433% and +110% respectively. Stocks beat bonds, but risk related to equities was much higher (13.4% versus 3.9%).

Asset Class Returns Over Various Periods					
	<u>1990-1999</u> <u>Total</u> <u>Return</u>	<u>Risk</u>		<u>2000-2009</u> <u>Total Return</u>	<u>Risk</u>
S&P 500	+433%	13.4		-9%	16.1
Barclays Agg	+110%	3.9		+85%	3.8
Source: Morningstar Direct					

However, the period from 2000 to 2009 was dramatically different. S&P total returns were actually -9% compared to a total return of +85% for bonds. Furthermore, the risk score for stocks was even higher than the prior decade. Anyone retiring in 2000 would not have been well served by investment theory. The market is littered with such swings in performance.

The table below shows that hot streaks can quickly come to an end.

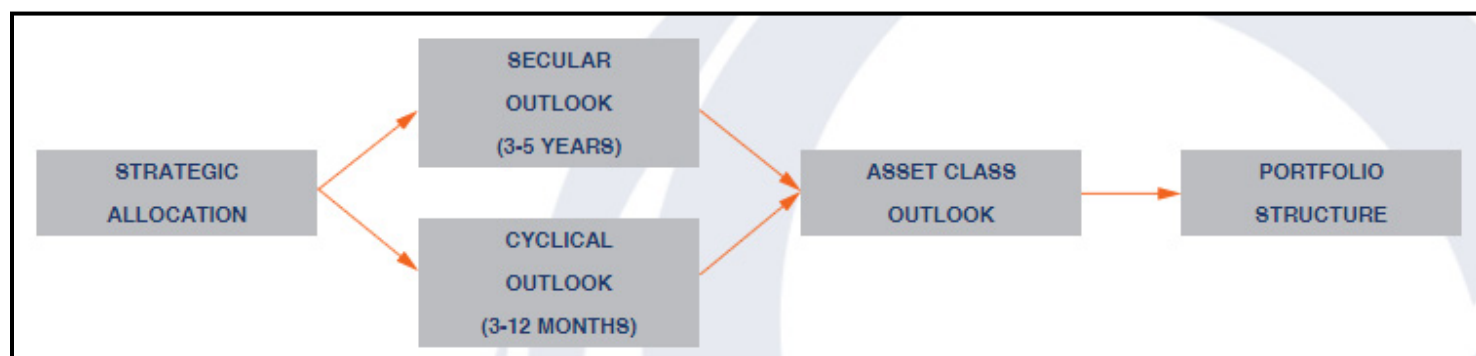
Asset Class Returns Over Various Periods					
	<u>2000-2007</u> <u>Total</u> <u>Return</u>	<u>Risk</u>		<u>2009-2015</u> <u>Total Return</u>	<u>Risk</u>
S&P 500	+14%	13.8		+166%	14.8
Commodities	+160%	13.9		-25%	15.9
Source: Morningstar Direct					

From 2000 to 2007 everyone loved commodities. They returned a total of +160% over this period versus just +14% for the S&P. Anyone looking at historical returns in 2007 would be tempted to allocate at least part of their assets to this hot asset class. But the trend sharply reversed and from 2009 to 2015 commodities fell -25% versus a gain of +166% for stocks.

These are critically important tables because depending on when you start investing you can end up with dramatically different outcomes. Someone starting in 1990 had a fairly standard decade ahead of them. However, someone retiring in 2000 would face a much different world. And while it is nice to think our times horizons run into the 30-to-50 year range, in reality, many of us begin withdrawals well before then.

This fact leads us to the concept that portfolios need to be tactical. Because risk/return tradeoffs can be dramatically different over relatively long periods of time, investors cannot simply buy a portfolio and ‘put it away’ for the next 40 or 50 years. An experienced manager needs to make adjustments as time passes to take notice of changing fundamentals such as growth, inflation, valuations, etc.

Our process, shown below, starts with a strategic allocation based upon the long-term efficient frontier analysis, but we overlay our own proprietary process to determine if we should deviate from the strategic allocation, and if so, by how much.



Secular Outlook

The first step in our process is determining the long-term trends that are likely to drive the global economy and markets over a 3-to-5 year period. For example, demographic trends in the developing world mean that the working age population is not growing as fast as it has historically. As a result, growth rates over the next 3-to-5 years are likely to be lower than in the past. Other topics such as the urbanization trends in China fit into this theme.

Cyclical Outlook

This is where we try and determine shorter-term economic trends and would include questions such as where is inflation headed, what are the odds of a recession, or what sort of earnings growth are we likely to see? These issues have a direct impact on the financial markets and the performance of various asset classes.

Asset Class Outlook

This topic gets to the heart of why efficient frontiers can change over time. For example, in 1990 U.S. equities were relatively cheap, and this set up the equity markets for a decade of solid performance. Thus, an investor buying stocks in 1990 was rewarded with higher returns than bonds. However, the decade of the 90's ended in a massive bubble in technology names, and broad overvaluation in stocks meant that returns in the 2000's were decidedly subpar. As it turned out, equity returns were so bad they

lagged bonds significantly over the period even though they were much riskier. We spend a lot of time looking at relative valuations between asset classes to try and determine where the opportunities are in the global markets and what the efficient frontier will look like in the coming years.

Portfolio Structure

We then take the results of the prior three steps and distill them down into our various portfolios. For example, how much emerging equity exposure do we want? Should we be over or underweight REITS?

Rinse and Repeat

It is all well and good to go through this cycle once, but the discipline comes in continually reassessing your process and the conclusions that come out of it. This is where many individual investors fall down on the job. They may go through the necessary steps once, but they neglect the ongoing work. After all, we all have lives to live and few people want to put in the hours day after day monitoring their investments.

3) Manager/ETF Selection

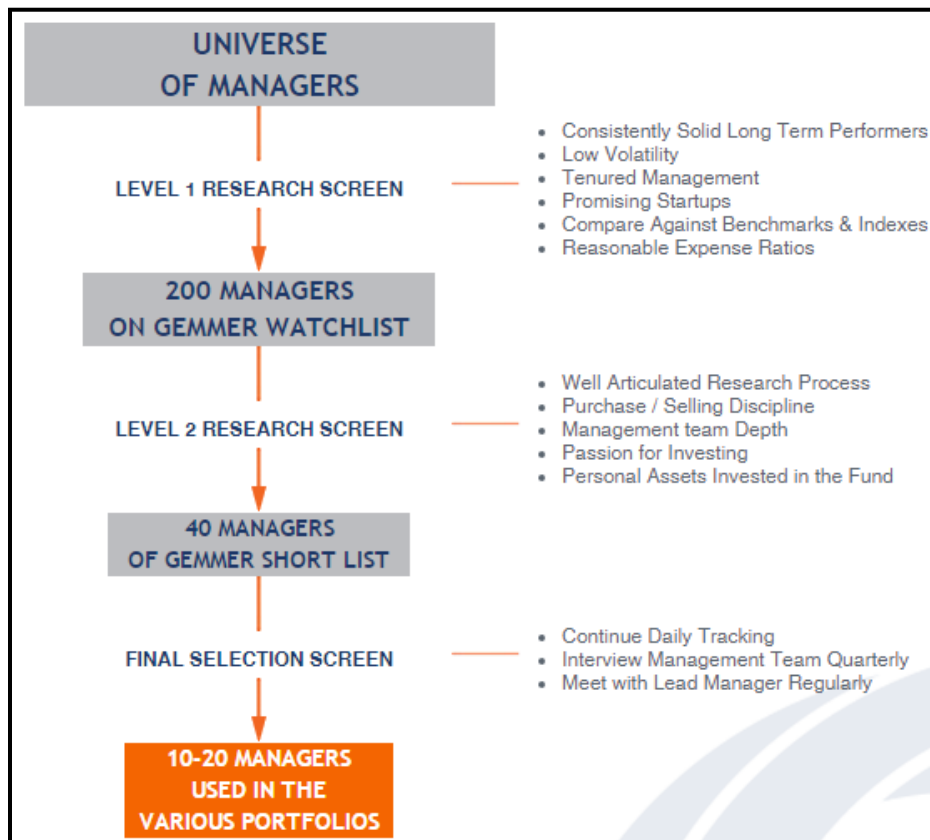
The final component of our investment process is rigorous due diligence of the actual investments we use to build a portfolio. These fall into two general categories.

Index Products

We build a full suite of portfolios that solely invest in low cost exchange traded funds (ETFs). As we discussed in the ‘Types of Investment’ section, ETFs are simply index funds that you buy and sell like stocks. As we noted, the size of the ETF universe has ballooned in recent years and we spend a lot of time evaluating new entrants to the market and assessing which product is the best way to gain exposure to a particular asset class. ETFs are typically low cost and tax efficient, but there is no chance of outperforming a particular benchmark. They simply provide the market return.

Mutual Funds

We also build portfolios that utilize active managers through traditional mutual funds. These portfolios are constructed with the idea that a disciplined process of manager due diligence can lead to a portfolio of managers that can beat a blended passive portfolio over time. While costs are higher than traditional index products, our experience is that our active portfolios (which use mutual funds) have modestly beat our ETF portfolios over long longer periods of time. Over shorter periods the pendulum swings between index and active strategies. Our due diligence process is extensive and is captured in the graphic on the next page:



Our process is both quantitative and qualitative. We utilize quantitative screening to narrow the universe of managers down to a manageable level. However, we have found that there is no substitute for actually talking to a manager and his team and delving into issues that can't come through a Morningstar screen. For example, asking a manager how much he or she has invested in their own fund is always illuminating. We have lost track of the number of managers we have talked to who have nothing invested in the fund they manage. This obviously excludes a manager from consideration!

One Last Thought

We have been doing this for close to 25 years and we have talked to hundreds of different management teams over the years. One thing that stands out as a key ingredient for success is discipline. The discipline to week after week, month after month evaluate the investment landscape, question your own assumptions, review for the hundredth time why you own a particular investment. Great investors do this instinctually. They live and breathe this stuff to the point it is truly defined as a passion!

And as we touch on in the next section (Where to Investors go Wrong), individual investors can find it hard to dedicate the time this process requires. When markets are good they accumulate a portfolio of what has worked in the recent past (think tech stocks in the 90's and government bonds recently) without an eye towards how efficient frontiers can change, sometimes dramatically.