alpha-DNA
Investment Management

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Using the digital footprint of publicly traded companies, we can identify the firms that are out-performing in their industry. The trading opportunity comes when the wider market participants have lower expectations for these firms than our algorithms project.

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White Paper

Title: Lies, Damn Lies, and All-Weather Portfolios

Executive Summary:

If you are searching for the All-Weather investment portfolio, the US Mutual Fund market should be avoided based on recent track record. In the past 10 years, only 2% of US Equity Mutual Funds have out-performed the S&P 500 returns within each of the three types of Market Regimes: the Sell-off, the Rebound, and the Benign market.

If you have an even higher standard for an All-Weather portfolio (hint: you should), then you are even less likely to find one in the US Mutual Fund industry based on our study presented herein. For example, if you believe an All-Weather portfolio should avoid a material amount of the drawdown during the Sell-off market but still capture an equally material amount of the appreciation during up-markets, then you should be prepared to be disappointed. No US Equity Mutual Fund in our study was able to accomplish this task.

Almost equally surprising in this study is that the Benign market is the market that is least likely to produce an Equity Fund that beats the S&P 500 compared to the other two regimes. One would expect the market with the least amount of fear and volatility to allow the professional money manager to display the skills that define their active management advantage – but it does not appear that way in our analysis.

Lastly, understanding money manager performance through the mental model of market regimes is helpful for managing your client's assets. These market regimes affect investor psyche and lead to frequent mis-management because of poorly timed responses to fear and greed. A money manager that understands the likely behavior of his/her investment strategies in the next regime can help to position his client's funds to achieve the best results in these market regimes.

Introduction

The 'All-Weather' portfolio is a common marketing tag line you will encounter in the investment management world. Money managers and wealth advisors both tout the ability to build the portfolio for clients that can win in any market "season". A simple search in Google for this term yields more results than I can tabulate (I stopped after 20 pages of results).

The concept of the All-Weather portfolio got us thinking: Can we measure the investment management world's ability to deliver on the promise of an All Weather Portfolio?

Defining the Challenge: What does it mean to be All Weather?

The term "All Weather" refers to any weather condition: sunshine, rain, wind, snow, or even hurricane. This implies that an All Weather portfolio must perform in any "Market Weather" we might experience.

We think there are three types of Market Weathers to consider that investors can readily relate to and we call them Market Regimes. We define the three Market Regimes as follows:

1. The Benign market
2. The Sell-off market
3. The Rebound market

We believe investors will understand these markets; in fact, we think that investors already implicitly measure their portfolios by these market conditions, if not explicitly.

The Benign Market is the market that is making new all-time highs and generally trends upwards without any major corrections downward. It is the market that tends to provide the most investor satisfaction. After all, who wants to spend any time worrying about the markets?

The Sell-off market is the market that declines at least 10% from new all-time highs. Here in 2020, we were all given a fresh reminder of what this kind of market does to our portfolios – and to our investor psyche. A Sell-off can be short lived (like Q4 2018) or it can extend over time and make several new lows with bounces off the lows that cannot be sustained (like 2007 to 2009). The Sell-off market is the one that investors typically fear the most and often drives difficult and poorly timed investment decisions that are driven by fear.

The Rebound market is defined as the recovery from the Market Sell-off. This market regime starts at the bottom of the market Sell-off and continues until the market recovers all the way back to its most recent market high.

You can see from these Market Regime definitions that these market regimes occur in a cyclical fashion and they occur in order. From Benign to Sell-off to Rebound and back to Benign again. We used these Market Regimes in our study as the proxy for the different Market Weathers that Investment Managers must contend with.

Like the Weather, Market Regimes Weigh on our Psyche

The weather is widely known to affect the emotional well-being of nearly everyone to varying degrees. Prolonged rain or cloudy days can bring on sadness and decrease outdoor exposure. Outdoor exposure and the activities that accompany good weather are both known to increase our general happiness.

Likewise, market swings have an impact on investor psyche and can often cause timing decisions that are driven by fear and greed. The market gyrations experienced in these regimes can cause dramatic changes in the overall value of the investor's portfolio which in turn causes the investor to change his behavior economically. This is often called the 'wealth effect'. An investor's perceived wealth level affects how they spend.

In fact, the All-Weather moniker as a marketing tool is effective simply because it appeals to the emotional side of investing associated with fear and greed – but mostly fear. If you can perform in all markets, you won't live thru the high level of fear that comes with the worst market outcomes. The All Weather marketing pitch appeals to your investor psyche more than your investor judgment.

Here are just a few examples of common investor behavior during different market regimes that are driven by our investor psyche and emotions:

1. During Benign markets, investors become complacent because the market lacks an obvious reason for fear. Portfolios are going up, generally. Every investment advisor can tell you that clients cancel their quarterly review meeting most often during Benign markets. Benign markets are the period when active managers should be able to show the skills that produce alpha for their clients. But the data will show that doesn't typically occur. But because of the complacency, those managers are rarely held accountable.
2. Market Sell-offs create fear in clients. Clients remember the recent high in their portfolio statements from the Benign market. The comparison of the portfolio in Sell-off to the Benign market highs just drives the fear upwards. Every investment manager can tell you about the panicked client that forced the manager to close the client positions near the bottom of an investment Sell-off. It is one of the worst mistakes an investor can make but it happens because of emotion.
3. Conversely, there are investors that view the Sell-off as the best entry to making new investments. These investors want to buy stocks that they believe are 'on-sale'. In this case, this emotion is greed. In general, this is viewed as the more positive investor behavior simply because of the belief that over the long-run, markets will go up. (Editor note: this is my favorite type of client).
4. During Rebound markets, investors tend to still have lingering fear that accompanied the Sell-off that preceded the Rebound. As long as the investor portfolio participates in a material amount of the Rebound, typically these investors will ride the Rebound without much reaction. However, there are many clients that tend to view the end of the Rebound and the entry in to the next Benign market as the opportunity to time the market and get back out with their portfolio at all-time highs. This generally leads to disappointment as Benign markets tend to have some longevity.

We invest to afford retirement, or a dream home or to fund a child's college education. The mind begins to race to the worst-case scenarios that include thoughts about the Sell-off getting worse or taking years to recover to previous highs. And what if you needed that money soon? The Market Sell-off is the market in which fear takes its grip. Fear of the unknown and the inability to fund the reasons you invested in the first place.

All regimes matter towards producing the end returns that a client needs to fund their lifestyle choices. However, it is important to remember that investors pay the most attention to their portfolio during the Market Sell-off regime. investment managers and advisors should understand that if they can manage the downside during the Market Regime, they can help clients avoid the fear and the resulting pitfalls that accompany that investor emotion.

In fact, most advisors will tell you that clients tend to login to see their portfolio the most during market Sell-offs. While they become complacent in Benign Markets, they become hyper-vigilant during market corrections. And we all know that the more you watch and analyze something, the more likely you are to believe that a change is required. It is just human nature.

The Sell-off Market regime is actually the regime that inspired the All-Weather portfolio marketing tactic. The All-Weather concept is meant to imply protection from the rain, blizzards, and hurricanes that are inevitable – just like All Weather tires are supposed to provide to your vehicle. If the All-Weather portfolio cannot out-perform in the Sell-off Market regime, then it cannot claim All Weather status.

A portfolio that out-performs in a Sell-off market is going to materially reduce the fear that accompanies the wealth reduction that affects the investor psyche. It is the single most important regime to achieve out-performance because it can help investors and advisors avoid the fear that inevitably leads to bad portfolios decisions.

All of these market regimes produce very typical responses among investors because investor psyche and emotion tend to govern our responses. Years of investor studies have codified these responses and provide a road map for handling investors in different market regimes.

Using Regimes as a Mental Model for Assessing Investment Managers

Unfortunately, however, not all asset managers use this mental model of market regimes for assessing the third-party investment managers that they utilize to construct a portfolio.

Assessing managers over specific regimes from the past can uncover specific examples of manager success that can give the investor confidence that the success can be replicated if it is sustained, strong, and repeated.

And that bridges us to our assessment of the promise of the All-Weather portfolio. If you can assess success over these market regimes, then you can assess the promise of the All-Weather portfolio. How many managers tend to win in these regimes on an absolute basis? How many tend to win in most of these regimes? How reliable is the promise? We have poured over a large data set of investment portfolio returns for the last 10+ years and believe we have the answer.

Market Regimes Over the Last 10 years

The recent market turmoil caused by Covid-19 has certainly been the inspiration for this market research but it is not the only market Sell-off of the last 10 years. There have been 13 distinct market regimes in the last 10 years when you examine the S&P 500 including 4 distinct Sell-offs.

Why did we choose the S&P 500? Because the S&P 500 is synonymous with 'The Market' and like it or not, every investor compares returns to this pre-eminent benchmark. Plus, it is the most liquid index investment vehicle in the world and the easiest for any investor to invest in at a moment's notice. In other words, it is the replacement threat for any investment manager.

If we look back at the S&P 500 going back 10 years from April 24th when we pulled our data, we find 13 distinct Market Regimes. In April 2010, we would have been in the middle of the Rebound Market that followed the Great Recession of '08-'09. That first regime started back in March 2009. Our latest regime is the one we are in now which we have classified as a Rebound Market which started March 24th.

The 13 market regimes we have tracked for the last decade that we used in our manager analysis is based on the S&P 500 returns and are listed here:

Market Regime	Date Range	S&P 500 Return
Rebound 1	Mar 9, 2009 to Mar 28, 2013	151.08%
Benign 1	Apr 1, 2013 to May 21, 2015	42.01%
Sell-off 1	May 22, 2015 to Feb 11, 2016	-12.81%
Rebound 2	Feb 12, 2016 to Jul 11, 2016	17.92%
Benign 2	Jul 12, 2016 to Jan 26, 2018	38.68%
Sell-off 2	Jan 29, 2018 to Feb 9, 2018	-8.72%*
Rebound 3	Feb 12, 2018 to Aug 24, 2018	10.91%
Benign 3	Aug 27, 2018 to Sep 20, 2018	2.11%
Sell-off 3	Sep 21, 2018 to Dec 26, 2018	-15.36%
Rebound 4	Dec 27, 2018 to Apr 23, 2019	19.66%
Benign 4	Apr 24, 2019 to Feb 19, 2020	17.34%
Sell-off 4	Feb 20, 2020 to Mar 23, 2020	-33.79%
Rebound 5	Mar 24, 2020 to Apr 24, 2020	26.98%

(*Despite the returns not achieving -10% down on an end of day basis, -10% down was achieved on an intraday basis on Feb 9th)

The most common measure of success for the investment managers in our portfolios is comparison to benchmark. That is always going to be a valid measure. For our analysis, let's compare to benchmarks during the Market Regimes that we defined above – the figurative 'weather' that the market rains down on us.

Parameters of the Study

Our primary research question is simple: How effective are professional investment managers on delivering All-Weather portfolio returns? For our purposes, we define an All-Weather portfolio as any portfolio that delivers out-performance in each of the three different market regimes.

Ideally, this study would be able to focus on alternative investment managers that have access to alternative vehicles and techniques to manage market downside (eg, Hedge Funds). However, that realm is notoriously secret and the largest players in that space do not report their returns to the performance tracking ecosystem that exists like HFRI or Morningstar. In addition, the managers that do report only report month end returns – which means our analysis that requires returns between highs and lows is impossible.

The most robust investment manager risk and return metrics is offered by Morningstar and it covers the Mutual Fund world. It includes daily return data and many metrics and characterizations that are made by prospectus. It provides the most sortable and complete set of data. There are thousands of funds in the Morningstar database so it makes for a good source of data.

Our Universe for Funds

Our universe for inclusion in our analysis is all US based Open Ended Mutual Funds that had at least $100 million in AUM collectively across its Mutual Fund share classes on April 24, 2020. The Fund had to have an inception date EARLIER than March 9, 2009 – the date of the first Market Regime in our table earlier. For our reporting, we used the data for the single share class for the mutual fund that has the EARLIEST inception date. The resulting population from Morningstar with the full complement of return data yielded 3,262 mutual funds that we included in this report.

Let's stop here and discuss the obvious monkey in the room: survivor bias. Clearly, by limiting to the Funds that have survived for 10+ years and excluding all funds that have closed up shop over that window, we will see survivor bias. In fact, by limiting to funds that have at least $100 million in AUM today (along with no minimum AUM in 2009), we are limiting the universe to funds that have mostly been successful at raising and keeping AUM over the last 10 years.

Given that the funds that closed tend to be poor performers and well under $100 million, this should provide an advantage in the reporting to this community of investment managers. But I ask you to reserve judgment. If you think the results below end up showing exceptionalism within the investment manager world, then you didn't read this paper close enough.

Key Universe Metrics:

3,262 Funds covering over $13 Trillion in investable assets

Count of Funds by Global Category
Equity: 1,737
Fixed Income: 989
Allocation: 476
Alternative: 44
Convertibles: 11
Commodities: 5

Funds with S&P 500 as Benchmark: 474

Funds with a broad US or World Index as benchmark: 814 *

*We'll refer to this population of 814 funds as 'Broad Benchmarks' throughout this study and it includes only Funds with Broad Equity Indices as benchmarks and those benchmarks must exclude any indices specific to style, sector, industry, or country (except US)

Mutual Fund Analysis – Key Findings

		Entire MF Universe	All Equity MFs	MFs w/ Broad Equity Benchmark	MFs w/S&P 500 as bench
Beats S&P 500	Beat S&P 500 over 10 year study	377 / 3262	367 / 1737	124 / 814	91 / 474
	Percentage	12%	21%	15%	19%
# of Regime Periods the Fund Beat the S&P 500	11 Regime Periods	4 (<1%)	4 (0%)	0 (0%)	0 (0%)
	10 Regime Periods	30 (1%)	30 (2%)	7 (1%)	7 (1%)
	9 Regime Periods	70 (2%)	67 (4%)	27 (3%)	18 (4%)
	8 Regime Periods	133 (4%)	128 (7%)	35 (4%)	25 (5%)
	7 Regime Periods	180 (6%)	180 (10%)	67 (8%)	47 (10%)
	6 Regime Periods	184 (6%)	181 (10%)	93 (11%)	43 (9%)
	5 Regime Periods	272 (8%)	240 (14%)	121 (15%)	64 (14%)
	4 Regime Periods	1,559 (48%)	339 (20%)	216 (27%)	124 (26%)
	3 Regime Periods	533 (16%)	292 (17%)	157 (19%)	81 (17%)
	2 Regime Periods	202 (6%)	186 (11%)	57 (7%)	38 (8%)
	1 Regime Periods	74 (2%)	71 (4%)	19 (2%)	14 (3%)
	0 Regime Periods	21 (1%)	19 (1%)	15 (2%)	13 (3%)
	Totals	3,262 (100%)	1,737 (1%)	814 (100%)	474 (100%)
Funds that win in at Least Half of this Regime Periods	Benign Regime	245 / 3262	238 / 1737	96 / 814	78 / 474
	Percentage	8%	14%	12%	16%
	Sell - off Regime	1779 / 3262	295 / 1737	302 / 814	208 / 474
	Percentage	54%	17%	37%	43%
	Rebound Regime	737 / 3262	728 / 1737	288 / 814	116 / 474
	Percentage	22%	42%	35%	24%
Funds Winning on Compound Return Basis within Regime	Wins in all 3 Regimes	52 / 3262	52 / 1737	16 / 814	9 / 474
	Percentage	2%	3%	2%	2%
	Wins in 2 of 3 Regimes	320 /3262	308 / 1737	115 / 814	89/ 474
	Percentage	10%	18%	14%	19%
	Wins in 1 Regime	2217 / 3262	751 / 1737	506 / 814	264 / 474
	Percentage	68%	43%	62%	56%
	Wins in 0 Regimes	673 / 3262	626 / 1737	177/ 814	112 / 474
	Percentage	21%	36%	22%	24%
Funds that win on a Compound Return Basis Across this Regime	Benign Regime	429 / 3262	420 / 1737	166 / 814	124 / 474
	Percentage	13%	24%	20%	26%
	Sell - off Regime	1824 / 3262	358 / 1737	317 / 814	222 / 474
	Percentage	55%	21%	39%	47%
	Rebound Regime	760 / 3262	745 / 1737	301 / 814	123 / 474
	Percentage	23%	43%	37%	26%

Consistency of Regime Wins Crossed with Success in Regime Types

Number of Regime Periods the Fund Beat the S&P 500

Number of Regime TYPES that Fund Beats the S&P 500	0	1	2	3	4	5	6	7	8	9	10	11	**Totals**
0	21	74	178	203	132	45	14	5	1				673
1			24	330	1419	202	127	75	33	5	2		2217
2					8	25	39	91	91	47	16	3	320
3							4	9	8	18	12	1	52
Totals	21	74	202	533	1559	272	184	180	133	70	30	4	3262

Find the data on the Data Table by matching the color of the heading section to the color box on the Data Table

Key Data Findings

#1: Funds don't beat the S&P 500

As you can see in the data table, only 12% of the entire Fund Universe beat the S&P 500 over our 10 year window. In the Equity only MF Universe, it was 21% that beat the S&P 500. Even when you limit the population to the Funds that utilize the S&P 500 as the direct benchmark, the beats percentage was only 19%.

This data should not surprise the reader. Many versions of this analysis have been completed over the years and they all show that Mutual Funds tend to lose to their benchmarks by the cost of their fees and the frictional cost of trading.

[Editor's Note: In a future whitepaper, we'll consider looking at the specific benchmark returns for each Fund and perform a comparison.]

#2: When examining success across the 13 Market Regimes of the last 10 years, the answer is the same – Mutual Funds tend to lose to the S&P 500.

Within the 13 Market regimes of the last 10 years, Mutual Funds tend to still lose in these regimes in similar ratio to the beats against the S&P 500.

While 19% of Funds with S&P 500 as benchmark actually beat the S&P 500, we notice that these same funds had 21% of them beat the S&P 500 in more than half of their Regimes. This implies that some regime is likely better than the other two regimes. Let's find out which one.

#3: While it is encouraging that Fund Managers deliver their best performance in Sell Off Market regimes, it is perplexing that these same managers struggle the most during the Benign Market Regimes.

In our table, we look at the number of Funds that won more than half of the time periods in each respective regime. We would expect to see a win rate in the Benign periods that looks strong as money managers earn their pay when their ability to create alpha should be the least encumbered. Instead, we see that the Benign market periods produce the lowest winning percentages across the board. That is somewhat disappointing.

On the bright side, we see the best winning percentages within the Sell-off regime. That has to be somewhat heartening to the average investor. When markets are at their scariest, the money managers tend to out-perform and lose less than the markets. But beware: they still don't win on average in the Equity based categories. The winners in the Sell-off regime are clustered within the categories that have material weighting in Fixed Income and Allocation Funds.

The Rebound regime is a mixed bag. The money managers we studied are performing well in the rebounds and materially better than the Benign market windows. It is an interesting outcome. Note that the Rebound windows favor

equity managers because markets are rocketing upwards. The reason for the overall below average performance during the Rebound among the managers is likely related to the fact the managers performed better during the Sell-off. The stocks that tend to rebound the highest are the ones that got punished the most during the Sell-off. These managers performed better than usual during the Sell-off so this, by definition, represents an allocation to positions that performed well during the Sell-off. Getting repositioned for the rebound and the stocks that lead the way up (ie, the most punished during the Sell-off) is a very difficult timing game. Calling a bottom correctly is hard to pull off.

The high-level takeaways from this analysis are straight-forward: professional money managers do not seem to show their skill during Benign markets when you'd most expect it. But they do tend to show more skill in the Sell-offs – when investors are most likely to notice and appreciate it. Later analysis however will show that the level of out-performance achieved during Sell-off markets is not material in size which is disappointing.

#4: Around 1/5th of equity money managers tend to win in two or more of the 3 types of regimes which does indeed imply that an All-Weather portfolio is not easy to accomplish.

Of the 3,262 funds we tracked, 52 managed to beat the S&P 500 cumulative returns for each of the 3 types of Regime: Benign, Sell-off, and Rebound. That is less than 2% of all Funds but this is a WORLD CLASS category. All 52 funds came from the Equity category so it was 3% of the entire Equity category. Out of the 474 funds with the S&P 500 as benchmark, there were 9 that win in all 3 Regimes – again, 2%.

Managers that win across at least 2 regimes of the 3 can still lay claim to strong management skills. On average, a little less than 20% of managers tend to beat the S&P 500 in at LEAST 2 of the 3 regimes of the last decade of the market. Those managers should be celebrated and they have likely been rewarded with increased AUM in their funds.

But that means that 80% of the Funds manage to win in only 1 or none of the 3 types of Market Regimes. It provides perspective about the difficulty in finding the winning managers – particularly the kind of managers that are going to provide you with winning outcomes when you most expect it (Benign) and most need it (sell-off).

#5: The Benign market is a disappointing market for money manager performance given the lesser degree of risk that is inherent to that market. Sell-off markets have produced out-performance but the scale of that out-performance is modest, at best.

When you examine each Regime category directly, you find that the Sell-off regime is the regime that has the most winners across the ENTIRE universe but that is driven ENTRIRELY by the non-Equity Mutual Funds. 99% (988 of 989) of the Fixed income Mutual Funds beat the S&P 500 during sell-offs which is what you'd expect from the asset class that is higher in the ownership structure during the sell-off that is worse than -10% down.

But when you isolate on Equity Funds, you find that the Rebound markets are the best performing market regime as 43% of all equity Funds deliver S&P 500 beating returns during rebounds. That number drops to 26% when you consider only the Mutual Funds that selected the S&P 500 to be its benchmark. If that is the regime with the most relative winners, this category has a lot to answer for at just 26% of funds beating the S&P 500 in this regime.

The Benign market might have the most to answer for in this analysis. Of all 1,737 equity Funds, only 24% of the Funds out-perform in Benign markets. We believe Benign markets are supposed to be the market that professionals show the investment edge that their skill provides to their investors. But the returns don't seem to prove that assumption. When you isolate for all of the Funds that selected the S&P 500 as their benchmark, the number of funds improved to 26% of the total. Not a hefty improvement at all.

Lastly, when examining the Sell-off market, we see the lowest number of funds achieving market beating performance within the Equity category. Across the Equity category, only 21% of funds beat the S&P 500 across the sell-off regimes. But the story changes when you isolate for Funds that have selected the S&P 500 as their benchmark. Nearly 47% of all

of the Funds with this benchmark manage to beat the S&P 500 during the Sell-off regimes. Across all of the metrics we have run so far, 47% winning is among the highest. It still isn't winning (ie, higher than 50%), but it is getting closer.

When you drill down on these 474 Funds with the S&P 500 as a benchmark, the Funds that are exclusively Equity Funds enjoy a 32% win rate in the Sell-off regime. That means it is the Funds from the Allocation and Alternatives categories that push it up towards the 47% win rate it enjoys. In fact, each of those categories enjoys a win rate in the Sell-off regime in excess of 80%+ when they have the S&P 500 as their selected benchmark.

The funds in the Allocation and Alternative categories (versus exclusively Equity) are able to deploy defensive techniques to cushion the blow during market downturns. This likely drives the abnormally high win rate they possess in this regime. The challenge these funds have is that they won't tend to deliver excess return in Benign or Rebounding regimes because the defensive maneuvers will cause a drag on returns. In fact, among the 101 Allocation Funds with S&P 500 benchmark that won in the Sell-off category, not a single one of them beats the S&P 500 in the Benign regime. In addition, only 1 of the 101 beats the S&P 500 during the Rebound regime. The story plays out similarly for the Alternatives category albeit on a smaller sample size. None of the 10 Alternative Funds with S&P 500 as benchmark beats the S&P 500 during Benign regimes and only 1 Fund beats the S&P 500 during Rebound regimes.

They say defense wins championships … but it can't do it alone. Let's park this concept of defense and come back to it near the end.

#6: Finding funds that consistently win in many regimes and win in multiple regime categories is even more rare.

We have looked at the number of funds that won in a preponderance of time periods defined by our market regimes. We have also looked at the Funds that beat the S&P 500 on a cumulative compound return by differing market regime type. Now let's cross the two and see if we can identify the Funds that tend to win a lot and win on an overall return basis within regimes.

You can see that across the entire world of Funds, only 296 of the 3,262 Funds beat the S&P 500 in at least 7 of the 13 regime periods AND win across at least 2 of the 3 different types of regimes. That is less than 10%. Tough sledding for sure.

When you drill down on just the Equity category alone, you find that 288 of 1,737 funds stand out winning more than half the time on both standards. That is 17% of that population. Filter down further and isolate on Funds with the S&P 500 as their benchmark and meet the winning standard above AND beat the S&P 500 over the 10+ years and you find that 58 of the 474 Funds win on these standards. That is 12%.

In examining these 58 best of the best, we see two trends that define the majority of winners: Large Cap Growth and Sector Funds. The Large cap growth space has been the biggest winner of the last decade so much of the industry out-performance has been driven in that space. And several sectors have driven growth more than others in the last decade, namely Technology and Health Care. Of these 58 funds, 23 were sectors that were big winners and 28 of the funds were large cap funds with a focus on growth. That leaves 7 funds that truly stand out in their space: 2 Mid-cap funds, 3 real estate funds, 1 Industrials sector fund, and one consumer cyclicals fund.

The world of active management struggles to win – and it particularly struggles to win on a consistent basis in markets defined by these regimes.

BONUS ANALYSIS: Does Defense really win Championships?

Are we being too hard on these Mutual Funds? Does All Weather really mean winning across most of the regimes? Don't risk adjusted returns matter at all? Would an All-Weather portfolio be best measured by its ability to keep you dry in the rain?

I am willing to be flexible here. An All-Weather portfolio has an implied promise of protection from the worst of the elements: the Sell-off regime. Some investors are willing to forgo the strong returns in the Benign and Rebound regimes if the trade off includes significant avoided losses during the Sell-off regime.

Let's dive in to the data and see how many Funds are able to deliver on that modified promise: significant avoided losses during Sell-offs coupled with reduced BUT adequate returns during the Benign and Rebound regimes.

We'll need a threshold for this exercise. We have decided to keep our threshold reciprocal meaning that whatever the accepted loss profile is, we want to mirror it to our acceptable returns for the Benign and rebound regimes.

So what is an acceptable loss during the sell off? In the end, the answer is personal to each person's risk tolerance. It needs to be sufficiently strong enough to make the investor satisfied that the out-performance is material. Let's test a 70% threshold meaning we will accept up to 70% of the market down performance in the sell off regime but we need to capture at least 70% of the upswing in the Benign and rebound windows.

In examining our 3,262 mutual funds, we find that there are 1146 funds that are able to reduce losses and deliver returns that capture less than 70% of the downdraft in Market Sell off regimes. Only 5 of them are Equity Mutual Funds and over 80% are Fixed Income Funds. There are also 141 allocation funds.

None of these 1146 funds manages to capture AT LEAST 70% of the S&P 500's positive returns in Benign markets. Not a single one. In addition, only 3 of the 1146 funds achieves 70% of the returns of the S&P 500 during the Rebound regime. Only two of these 1146 funds manage to achieve 70% of the returns of the S&P 500 for the overall 10+ years.

Maybe 70% is too hard. Let's try 50%. Unfortunately, the answer is the same. Of the total fund universe, 924 funds manage to achieve returns better than 50% of the S&P 500 returns during Sell-off regimes. Nearly all of these are Fixed income funds and none of them manages to achieve at least 50% of S&P 500 returns at all in Benign regimes. Only two of these 924 funds manage to achieve 50% of the positive returns of the Rebound regime. Only two!

Let's lower the bar again. Let's say the manager can achieve 70% or better of the Sell-off regime but ONLY needs to return 50% of the upside of the S&P 500 during the Rebound and Benign market regimes. The answer is still superfluous. Of the 1146 funds that achieve 70% or better of the market Sell-off returns of the S&P 500, only 4 of those funds are able to achieve 50% of the upside of the markets in the Benign and Rebound regimes. This might be acceptable to some investors but even if it is, good luck in identifying the manager likely to deliver this risk/return profile because it is still rare. All four of these funds are in the Allocation category for Mutual Funds.

For the last decade, there has not been risk/return parity in the market across asset classes. The managers that produce better returns in the Sell-off regimes are NEVER able to show any kind of reciprocal return profile in the Rebound and Benign market regimes.

This extra analysis on the loss avoidance during Sell-off regimes has also exposed one other key point: even among the equity Funds that achieved the best performance across all 3 regimes, none of them were able to avoid a material portion of the market downswing in the Sell-off regimes. Remember that only 5 Equity Mutual Funds were able to achieve 70% or better of the downswing during the Sell-off regimes. None of those 5 funds were able to win in the Rebound or Benign regime. In fact, the best performing of those 5 fund only won in 6 of the 13 regime periods we assessed. None of those 5 Funds are among the Funds that won in at least 2 out of the 3 regimes on a cumulative compound basis.

Conclusions

Three key conclusions come from our analytics we present in this paper:

1. Beating the market thru each type of Market Regime is difficult but not impossible. Only 2% of professional money managers in the Mutual Fund world have been able to achieve this distinction in our analysis. These money managers are worth their weight in gold and if you have already found one of them in your portfolio, then hold them close and value them appropriately. Even managers that win in at least two out of three regimes among the Equity Mutual Fund space is only 21% which still makes finding a manager in that group a 1 in 5 proposition. Those managers deserve recognition for an accomplishment that matters.

2. If your definition of an All-Weather portfolio is one that materially reduces losses during Sell-off regimes but still manages to win against the market in the other two regimes, then you are in search of a Unicorn. In fact, if you just want a portfolio that materially reduces losses during Sell-off regimes and captures an equally material amount of the market's up moves, those results don't exist either. One caveat: they don't exist in the Mutual Fund world. Our analysis is limited to the professional money managers of the Mutual Fund industry here in the United States. This is the space with the most public data about their funds (because it is regulated) and it easily includes the most client assets invested in the investment management world. These managers are professionals and they are well paid (the lead portfolio manager on these funds averages compensation in excess of a quarter million dollars annually). But the Mutual fund space does not utilize all of the same investment vehicles that alternative managers utilize, for example, in the hedge fund space. The mutual fund world has a deeply ingrained bias towards long-only investing. Maybe if we had hedge fund and separate account data, we could perform a similar analysis and find more managers that win in more of these market regimes. [Editor's Note: maybe we will find that data and it can be our next White Paper?]

3. Using market regimes to assess the performance profile of your third party managers can be an effective way to analyze and make changes to your managed portfolios. If you use third party managers, then you have clients you are accountable to for the decisions about which managers to use. Clients will react in predictable ways to performance outcomes in different market regimes as sure as the sun will set in the West. As a custodian of your client's wealth, you will surely be forced to react to your client's reactions in these regimes. With a full understanding of how your client's investments will behave in each of these market regimes, you can more readily plan for the portfolio recommendations you would make when these client calls eventually occur. We know that these market regimes bring out the extreme reactions from clients associated with fear and greed. We also know that these regimes will occur regularly but without warning. You should hold your third party managers accountable to perform in these regimes in the manner they prescribe. In fact, you should require your third party managers to provide details about how they expect to perform in each of these regimes and compare that to their past performance history.

Appendix A: Definitions of Market Regimes for Study

Benign Market: The official definition for this study is the market that begins after the Rebound market finishes and begins making new all-time highs and continues making new highs. The start date is the date a Rebound market ends. It continues, for this study, up until the date of the final market all-time high prior to a 10% market decline.

Sell-off Market: For our study, the definition is the date of the last all-time market high PRIOR to the 10% correction up until the date of the market's low point after the 10% down threshold is met. For obvious reasons, the date of the lows may need to be re-visited several times over as the Sell-off continues.

Rebound Market: The official definition of a Rebound market is the date from the low of the market in the Sell-off phase to the date at which the market reaches its previous all time high.