

Forward-Looking Due Diligence

Tuttle Capital Management



Introduction

“PAST PERFORMANCE DOESN’T PREDICT FUTURE RESULTS”

This statement is plastered on every piece of literature in the investment industry. Yet for some reason investors continue to use past performance to predict future results. This is the single biggest mistake investors make and has led to big investment blowups throughout history. Think about it: if you put money in any type of investment, does it matter what it did in the past, or is it only important what it does in the future? **Forward-looking due diligence looks at past performance, but not in a way that expects it to be replicated in the future. Instead, it tries to determine what performance is likely to be in the future, and more importantly, what could go wrong.**

Context

“Backward-Looking” Due Diligence

Standard or “backward-looking” due diligence usually involves looking at past returns for an asset class or a portfolio manager and then sometimes mistakenly assumes that those returns will persist into the future. Some investors may consider more sophisticated factors such as Alpha, Sharpe Ratio, or Sortino Ratio to justify predicting future results. Modern Portfolio Theory also generally uses standard due diligence, assuming that past returns, volatility, and correlation will persist into the future.

Unfortunately, it’s not that easy. The investment industry knows this; that’s why they warn investors that past performance doesn’t predict future results. Why then do investors continue to use backward-looking due diligence? It’s easy to do and it is the path of least resistance. For the investor, all you need to do to analyze a money manager or asset class is to pull it up on Morningstar. For a financial advisor, it is easier to sell a client on an investment that has averaged 25%/year than on that has averaged 5%.

Using backward-looking due diligence, one might find themselves buying technology stocks in March 2000, real estate in 2007, nothing in 2009, and inverse volatility in February 2018.

Backward-Looking Due Diligence Disasters

LJM Preservation & Growth Fund

LJM Preservation and Growth Fund was a mutual fund that made money by writing call and put options on S&P 500 Index futures. From the fund description on their fact sheet the fund “seeks capital appreciation and capital preservation with low correlation to the broader U.S. equity market”. As of 9/30/17, according to their fact sheet, the fund delivered on their promise with the following returns:

	Ticker	Morningstar Rating	YTD	1 Yr.	3 Yr.	Since Inception	Inception Date
LJM Preservation and Growth I	LJMIX	5 star	7.75%	9.42%	7.87%	5.44%	1/9/2013

From a backward-looking due diligence basis, there is nothing not to like about this fund. However, on one day in February 2018 it lost over 80% and had to shut down.

Catalyst Hedged Futures Strategy

Catalyst Hedged Futures is a mutual fund that “seeks to provide positive returns in all market conditions with low volatility and low correlation to the equity markets by investing in dynamic option strategies on equity index futures contracts.” The fund was able to deliver on that promise with the following annual returns:

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
52.5%	4.3%	50.2%	12.4%	10.2%	16.4%	10.9%	-3.3%	7.7%	7.8%	5.8%

The fund delivered huge returns in 2008 when the S&P 500 was down 37% and only had one down year. Seemingly without warning, the fund lost 22.7% in 2017 when the S&P 500 was up 21.8%. 18.31% of that loss came in February alone.

Good Harbor Tactical Core US

The Good Harbor Tactical Core US is a separately managed account (SMA) that “seeks to align with the stock market during sustained bull markets” and “seeks to move defensively during sustained bear markets”. The SMA was able to deliver on that promise with the following annual returns:

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
33.12%	14.52%	-3.81%	10.68%	-3.36%	-.07%	47.27%	12.92%	12.73%	5.77%	24.6%

In 2008 the SMA was just about flat when the S&P 500 was down 37% and it made money throughout the bull market. Then in 2014 it lost 21.66% when the S&P 500 was up 13.69% and in 2015 it lost 8.12% when the S&P 500 was up 1.38%.

The Internet Fund

The Internet Fund is a mutual fund that invests in companies that have something to do with the internet. In 1998 the fund was up 196.14% and in 1999 it was up 216.44%. The fund then had the following returns from 2000-2002:

2000	2001	2002
-51.49%	-9.62%	-23.44%

Forward-Looking Due Diligence

The forward-looking due diligence process consists of evaluating portfolio managers or asset classes to gauge how they may perform in the future. Although past performance is also reviewed, it does not provide an indication of future performance and is therefore not used as a method for assessing future abilities of a portfolio manager or return potential of an asset class.

Standard Due Diligence	Forward-Looking Due Diligence
Belief that most recent past will equal future performance	Past performance will not equal future performance
Seeks to create a false sense of certainty	Embraces uncertainty
Looks at past performance to project future possibilities	How did manager generate past performance AND what is the likelihood that it will persist into the future?
Focuses on verifying the continuation of the strategy	Seeks to determine how adaptive the manager/strategy is
Performance mentality	Results mentality

Forward-Looking Due Diligence Process

This process starts with standard measurement systems, such as track record, correlation, and volatility. Instead of assuming what happened in the past will continue, forward-looking due diligence wants to know why the past returns happened, and why they may or may not persist. It involves asking four key questions:

1. **Return Attribution.** Where did the past returns come from?
2. **Attribution Persistency.** Can the current performance persist going forward, and, if so, why or why not?
3. **Tail Risk Analysis.** What factors may contribute to potential large loss? Basically, what can go horribly wrong?
4. **Portfolio Flexibility.** For money managers, what changes in strategy, if any, would managers be willing to make when, not if, market dynamics change?

Return Attribution

Forward-looking due diligence still looks at past returns, but the goal is to only assess where they came from. If they were good, why were they good? If they were bad, why were they bad?

Examples: If an investor is looking at a growth stock manager in 2000, their returns most likely came from investing in tech stocks, which had a large up move. If one is looking at bonds over the past 30 years, they benefited from a period of lowering interest rates. If one is looking at any equity manager in 2019, they have benefited from a bull market in stocks. Once an investor knows where past returns came from, they can consider Attribution Persistency.

Attribution Persistency

Attribution persistency asks the question, “What is the likelihood that returns will persist into the future?” This is one of the most difficult parts of the forward-looking due diligence process because one needs knowledge of how markets and different strategies work. A key component to any market is reversion to the mean. If you look at any asset class over large periods of time, it has an average return. When an asset class has major deviations from the long-term average, generally it will eventually revert back to the average. This means that an asset class that does substantially better than the average return will most likely experience eventual large losses to get back to the average. This is a potentially difficult concept for many because while an asset class is deviating from the average, there may be a pervading thought that something is different now.

Example: Referring back to the growth manager in 2000, it is easy to see that tech stocks did so well from 1995-2000 that they are due for a major correction. Forward-looking due diligence can't tell you when the correction is going to happen (this is not market timing), but it can tell you that a correction may occur at some point.

Bonds today are a great example of what attribution persistency can tell you. As I write this bonds have been in a bull market for the past 30 years. Using return attribution we know that this is because interest rates have gone down massively. For these types of returns to persist into the future then interest rates need to continue to go down in the same magnitude they have in the past. Unfortunately, there are two problems with this. First, interest rates are near zero. They can go down but they don't have room to go down much. Second, the Federal Reserve is raising interest rates and they have told us they will continue to do so. Using attribution persistency there is no way that bonds can generate the same returns in the future as they have in the past.

Tail Risk Analysis

Tail risk analysis asks the question, “What can go horribly wrong?” Every asset class and investment strategy has its “Black Swan.” This is the event that statistically should not happen but will happen at some point. For a portfolio manager, this is also the event that they typically can’t prepare for or hedge. Before investing in an asset class with a portfolio manager, one generally needs to know what the worst-case scenario is. In some cases, this is a simple task (e.g., for a buy and hold equity manager, the tail risk is a bear market, which could produce losses of 60% or more). Other times, more advanced knowledge is required. Consider, for example, a manager who had generated a consistent track record selling naked options (i.e., selling options on securities they didn’t own). Someone who understands this type of strategy will know that selling naked options could result in unlimited losses, which, in this example, is what happened to this particular manager when volatility spiked in February 2018. Bottom line: if investors don’t understand an investment strategy enough to know what the worst-case scenario is, generally they should not be investing in it.

Portfolio Flexibility

Portfolio flexibility applies to portfolio managers. It asks the questions, “What changes will you make, if any, when market dynamics change? How adaptive can the manager and strategy be?” There are certain overriding aspects of market behavior that will never change: we will have bull markets, we will have bear markets, and markets will revert to the mean. However, the dynamics within the overriding aspects do change over time. For example, we still have bull and bear markets today, but markets move quicker than they ever have before. A strategy that worked in the past during slower markets may not work going forward in markets that move much more quickly. New product development can also result in changing market dynamics. A large part of the volatility spike in February 2018 was caused by the massive amount of money in inverse volatility products.

Unfortunately, many money managers don’t have much flexibility. Once market dynamics change, they may try to convince clients that whatever is happening is an anomaly and eventually things will go back to normal. When managers adopt this mindset, there is generally some cause for concern.

Forward-Looking Due Diligence at the Portfolio Level

Forward looking due diligence is necessary when deciding to invest in asset classes and portfolio managers. It is equally important to use forward-looking due diligence once you have put together a portfolio. When determining whether any changes are to be made to portfolios, additional questions are asked pertaining to the aggregation of managers or asset classes:

1. **Performance vs. Expectations.** How did portfolios of combined managers, for example, perform against expectations?
2. **Portfolio Optimization.** What changes in allocation percentages, if any, are required to improve portfolios?
3. **Scenario Analysis.** What are possible market scenarios going forward on an immediate basis? How would current portfolios perform in those markets?
4. **Failure Mode and Effect Analysis.** How does a problem with one manager impact other managers and the overall portfolio?

Performance vs. Expectations

In general, a portfolio is not going to be perfect. There will typically be day-to-day, week-to-week, and month-to-month fluctuations. It is important to evaluate a portfolio against expectations. This could occur intraday, daily, weekly, or monthly. If a portfolio is deviating from what one would expect, a manager needs to figure out why. Once this is determined, one can ask whether there is a potential problem. Have market dynamics changed? Is a manager or asset class doing something unexpected?

Portfolio Optimization

If there is a hole in a portfolio, then portfolio optimization will attempt to address and plug it. If market dynamics have changed and there are money managers who are not shifting with it, these managers may need to be replaced. An overriding factor in portfolio optimization is to help ensure that if one hole in a portfolio is plugged, another hole doesn't result. For example, consider a countertrend money manager who would protect a portfolio in a choppy market but who struggles to do well in a straight up market. Taking them out of the portfolio might help performance in a straight up market, but now there may be a problem when the market turns choppy.

Scenario Analysis

Scenario analysis focuses on constantly asking, "What are the potential scenarios that could happen with the market, including the Black Swans, and how would a portfolio handle them?" This feeds back into portfolio optimization, as it may help identify potential holes in a portfolio.

Failure Mode and Effect Analysis

Ideally, each part of a portfolio should be working in harmony in the attempt to generate gains in up markets and protect from losses in down markets. So an issue in one part of a portfolio can have a large impact across the portfolio. If there is a countertrend manager who is supposed to offer protection from a choppy market but is struggling, then the portfolio might struggle in a choppy market. If there is a momentum manager who has decided to use leverage, that can substantially change a performance vs. expectations. Failure mode and effect analysis is about constantly monitoring the portfolio mix to determine any ripple effects from one part of the portfolio to the others.

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