RISK MANAGEMENT

Issue 1 | Q4 2010

CONTRIBUTORS

Ted Lucas

Managing Partner tlucas@latticestrategies.com

Stella Choi

Director, Portfolio Management schoi@latticestrategies.com

Joel Wagonfeld

Director, Senior Portfolio Strategist jwagonfeld@latticestrategies.com

Kirsten Meder

Senior Analyst, Research & Strategy kmeder@latticestrategies.com

The Oracle of ... Risk Management?

By last count, there have been dozens of books written about Warren Buffett and his unparalleled investment success. These books, and countless articles, generally distill Buffett's approach down to a number of key tenets: Approach buying stocks as you would approach buying companies; don't overpay and hold for the long-term; ascribe worth to the sustainability and franchise value of a business, rather than be seduced by razzle-dazzle new products or unsustainable peaks in short-term growth; the quality of management is more important than the sexiness of the industry.

Buffett would likely affirm these principles and attest to employing them consistently over the roughly 22-year period since public price data for Berkshire Hathaway's stock (BRKA) became available back in January 1988. From this date through September of 2010, Berkshire's stock generated a total return of 4,120% compared to 670% for the S&P 500 Index, leading Buffett to be crowned king of all market crushers and capturing popular imagination as the "World's Best Investor."

While his uniquely consistent success remains extraordinary, most investors are likely not aware of the key source of this enormous outperformance. A closer analysis of Berkshire's stock performance over time reveals a critical insight that's applicable for all investors.

When most investors consider "beating the market," they often think one-dimensionally, i.e., performing better than a particular benchmark over a specific time window. In fact, this is generally how many institutional money managers and funds are evaluated, so it is not surprising that it is also how many professional and individual investors evaluate performance — often leading to an exclusive focus on either wrong or incomplete questions. For example: How did we do last month, last quarter or last year? Would I have done better with a different fund, strategy, asset class or manager?

A deeper look at Berkshire's performance, however, exposes a fascinating two-dimensional picture — one that many investors either ignore or are detrimentally unaware of as they make investment decisions.

Since January 1988, the average return during positive months for the S&P 500 Index was 3.37%. During these same months, Berkshire stock (BRKA) returned an average of 3.20%. Put differently, BRKA captured roughly 95% of the market's upside, on average, during each positive month. As a result, Berkshire's stock lagged the S&P during 56% of the Index's positive months throughout this period. So how did Buffett generate a cumulative return that was six times that of the S&P 500 over the last 22 years?

In order to truly identify the primary source of Buffett's remarkable return differential, one must examine the performance of Berkshire relative to the market during negative periods. Doing so is quite revealing: Since January 1988, the average return during negative months for the S&P 500 Index was -3.60%. During these same months, Berkshire's stock returned an average of -1.26%, reflecting downside capture of approximately 35%. By recognizing the asymmetry in Berkshire's stock performance during positive and

Lattice Strategies LLC

www.latticestrategies.com (415) 508-3400 One Embarcadero Center, 23rd Floor San Francisco, CA 94111

RISK MANAGEMENT

The basic math of compounding reveals the importance of avoiding large losses: the gains required to get "back to even" are greater than the size of drawdowns suffered by any particular portfolio.

Buffett's Berkshire Hathaway stock (BRKA) outperformed the S&P 500 Index by more than 6x over the past 22 years.

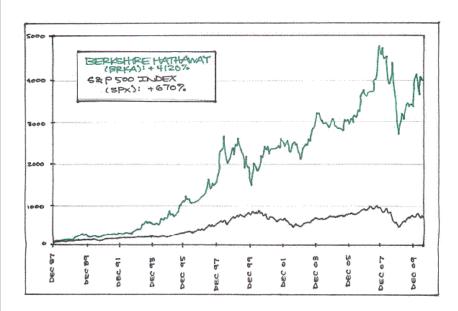
Buffett's ability to maintain a persistent, positive skew between downside and upside capture may be his greatest, but least recognized, achievement.

negative periods – i.e., 95% upside capture versus 35% downside capture – the key driver of Buffett's enormous outperformance is revealed, underscoring the tremendous power of compounding – in both directions.

Buffett Crushes S&P by Minimizing Downside Capture...

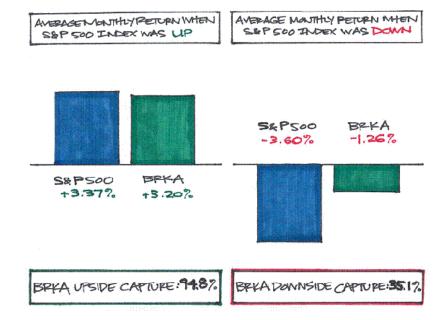
Berkshire Hathaway (BRKA) versus S&P 500 (Total Return)

January, 1988 through September (Q3), 2010



Berkshire Hathaway (BRKA) versus S&P 500 (Total Return)

January, 1988 through September (Q3), 2010





REAL WORLD

RISK MANAGEMENT

Comprehensive diversification beyond traditional assets and strategies can materially impact a portfolio's long-term performance, particularly if it experiences periods of heightened volatility.

Resilience – i.e., the ability to weather volatile periods and survive full market cycles – is essential for the long-term growth of capital.

This brings us to the central principle of investing that investors would be wise to understand and apply: How portfolios perform in adverse markets is much more impactful on overall long-term investment results than how they perform in positive markets. For example, the roughly 57% peak-to-trough decline that the S&P 500 Index experienced from October 2007 to March 2009 required a 133% gain just to get back to breakeven. Losses are linear, but the appreciation required to recover from losses scales exponentially as they deepen.

Thought experiment: Imagine a portfolio that was down 20% during the 2008 implosion, versus a portfolio that was down 40%. In the 2009 rebound, assume the first portfolio recovered by 25%, while the second rebounded by 40%. At the end of the two periods, the first portfolio would be back to its starting point, while the second — after knocking the lights out in 2009 — would still be down 16%, requiring another 19% gain to get back to even (i.e., a 40% gain on 60 cents on the dollar yields 84 cents; to get 84 cents back to a full dollar requires a 19% gain).

The key takeaway? Avoiding big drawdowns — and thereby limiting the destructive force of negative compounding and unleashing the power of positive compounding — is the critical driver of long-term returns. It is the "shape" of returns through a market cycle that is of infinitely greater importance than relative benchmark outperformance over a short time window.

How does this factor into building resilient, long-term investment strategies? When constructing portfolios, investors would be well served by a willingness to trade off some upside during positive markets in order to disproportionately mitigate the downside experienced during negative periods. While this may not sound like a blinding insight, it is hard to reconcile this idea with an industry where strategies are promoted — and often chosen — based on relative benchmark outperformance over short time windows, typically when conditions are conducive to a particular strategy.

In moving from theory to application, we must acknowledge that very few investors have Warren Buffett's ability to consistently identify the right stocks to construct a portfolio with positively-skewed up/down market capture characteristics that persist over a long time horizon. In addition, one could make the argument that certain structural advantages give Buffett an inherent advantage: superior access to deal flow, privately-negotiated security structures or the "halo effect" for stocks that Berkshire adds to its holdings. Berkshire's stock itself may also benefit from being perceived favorably during periods of market turmoil, though the long-term growth of Berkshire's stock price has mirrored the growth of its underlying book value per share — which in turn is a function of the composition of underlying holdings Buffett has assembled.

Those caveats aside, another way to achieve the investment characteristics highlighted here is to construct portfolios that are broadly diversified beyond the domestic stock bias so often prevalent in many investors' holdings. Inclusion of a broad array of diversifying assets and investment strategies that exhibit varying degrees of correlation — or even negative correlation — to US equities provides the opportunity to reduce an investor's overall portfolio risk and create a positive ratio of up/down market capture.



REAL WORLD

RISK MANAGEMENT

For example, an indexed portfolio split equally between US and international stocks, bonds, real estate and commodities¹, rebalanced annually, would have compounded at a rate of 5.7% per year over the last ten years², generating a 73.4% cumulative return. During this same period, the S&P 500 Index (including dividends) compounded at -0.4% per annum, resulting in a total cumulative return of -4.2%. The return differential between these two portfolios is almost 80%, yet the upside capture of the diversified portfolio relative to the S&P 500 was only 82%. However, the downside capture relative to the S&P 500 was 55%. As in the example of Berkshire's stock performance, the positive skew of up/down capture was the central driver of the huge spread in ending capital value.

This is not to suggest that this same asset mix would necessarily result in a similar outcome over the next ten years, but simply to demonstrate how diversification — albeit simplistic in this example — can dramatically improve portfolio risk characteristics and ultimately result in far better results than portfolios that are significantly more concentrated. This is particularly true in periods when equity markets experience heightened volatility.

The art and science of shaping returns through a comprehensive risk management discipline has multiple layers. Lattice's risk-optimized core ("ROC") approach creates a strategic portfolio architecture calibrated to a client's specific risk parameters. Each portfolio is built from a highly-diversified palette of underlying assets grouped by their distinctive behavior across a range of economic and market/risk scenarios. This all-inclusive portfolio of liquid global assets is combined with exposure to "liquid alternatives" — i.e., SEC-registered, open-end fund vehicles with daily liquidity and pricing that contain hedged or absolute return strategies. This portfolio segment seeks to further dampen overall portfolio downside during adverse markets. The composite portfolio is then managed on a tactical basis by continuously re-allocating capital among the assets and strategies based on their changing relative risk/reward attractiveness to one another as market conditions change. Finally, we apply systematic tax-loss harvesting that seeks to create a realized tax benefit — potentially a very meaningful source of downside reduction — during periods when growth assets are under pressure.

Anticipation and management of a broad range of potential sources of risk should be a core part of the construction of any diversified portfolio.

On a more universal level, the observations here offer several critical lessons that investors should incorporate into their thinking. Investment goals should prioritize risk management and thoughtful consideration of how a particular portfolio is expected to perform during adverse markets, rather than simply succumbing to the onslaught of industry messaging aimed at conditioning investors to focus on short-term performance. As evidenced here, even a small reduction in downside capture relative to upside participation can make a big difference in long-term capital growth. For example, over the last ten years, a portfolio that captured 100% of the S&P 500's upside during positive months but 90% of its downside during negative months would have returned a total of 20.3%, handily outpacing the S&P 500's actual -4.2% return during this period.



¹ Represented by the S&P 500 Index, MSCI EAFE Index, Barclays Aggregate Bond Index, DJ REIT Index and DJ-UBS Commodity Index, respectively.

² Through September, 2010.

RISK MANAGEMENT

This means investors must think two-dimensionally when evaluating advisors, asset classes or particular funds, and resist the temptation to invest with a "hot hand" who just put up great numbers during a period that provided a conducive environment for their particular strategy or the type of risk they were taking. As so many investors learned the hard way over the past few years, often the same fund or strategy that blows away the market on the upside contains risks that result in even greater downside when markets move the other direction.

Finally, investors should think about the attributes of any portfolio in its totality through a full market cycle, as opposed to trying to bolt together strategies or funds expected to individually provide benchmark-beating performance. First of all, such "picks" are rarely winners on a sustainable basis; but secondly, even if a portfolio includes some holdings that individually outperform, it is the composite attributes of the overall portfolio — specifically, its level of participation in both positive and negative markets — that matters most in determining the long-term growth of capital.

Warren Buffett has summarized his mentor Ben Graham's investment philosophy with the following two rules. Rule number one is: Don't lose money. Rule number two is: Don't forget rule number one. Hats off to the Oracle of Omaha for vividly illustrating this central investment concept so powerfully over the last 20+ years. The numbers truly speak louder than words.

