WARATAH

Brad's Musings

Know Thyself

Warren Buffett and Charlie Munger are two of my heroes and role models. Both have gone out of their way to teach others about investing and, through their words and actions, how to live an honourable life. I read and listen to what they have to say. In the recently published 2016 Berkshire Hathaway Annual Report, Warren Buffett devotes nearly five pages to his views on active management and hedge funds. To paraphrase, his conclusion is that management fees are a waste of money because a low-cost market index fund is likely to beat the vast majority of all active stock pickers. Whether you are wealthy or poor, an individual investor or a sophisticated pension fund, passively managed index funds are the obvious choice, in his opinion.

I agree with Mr. Buffett that index funds are likely to beat the majority of hedge fund returns over long investment horizons. This is a reasonable conclusion since studies have consistently shown that most long-only managers fail to beat the markets and hedge funds have to overcome the additional burden of carrying a short portfolio. I also share his view that low-cost index funds are a great investment choice and I think that most investors should be using them as a major component of their asset mix. Where I disagree strongly with Mr. Buffett is that ***I believe index funds are not suitable for all investors***. Every individual has a different tolerance for risk and reacts differently to loss. People and institutions with a lower risk tolerance should consider not only returns but the risk they are taking to achieve those returns. This framework is commonly referred to as risk-adjusted returns.

Many people, like Mr. Buffett and Mr. Munger, take a very long term approach and the thought of losing half their money two or three times in a lifetime does not cause them to lose any sleep. Here is a quote from Charlie Munger at the 2017 Daily Journal Annual Meeting when asked about the 1973-74 bear market:

"At the bottom tick, I was down from the peak, 50%. You're right about that. That has happened to me three times in my Berkshire stock. So I regard it as part of manhood. If you're going to be in this game for the long pull, which is the way to do it, you better be able to handle a 50% decline without fussing too much about it. And so my lesson to all of you is conduct your life so that you can handle the 50% decline with aplomb and grace. Don't try to avoid it. It will come. In fact I would say if it doesn't come, you're not being aggressive enough."[1]

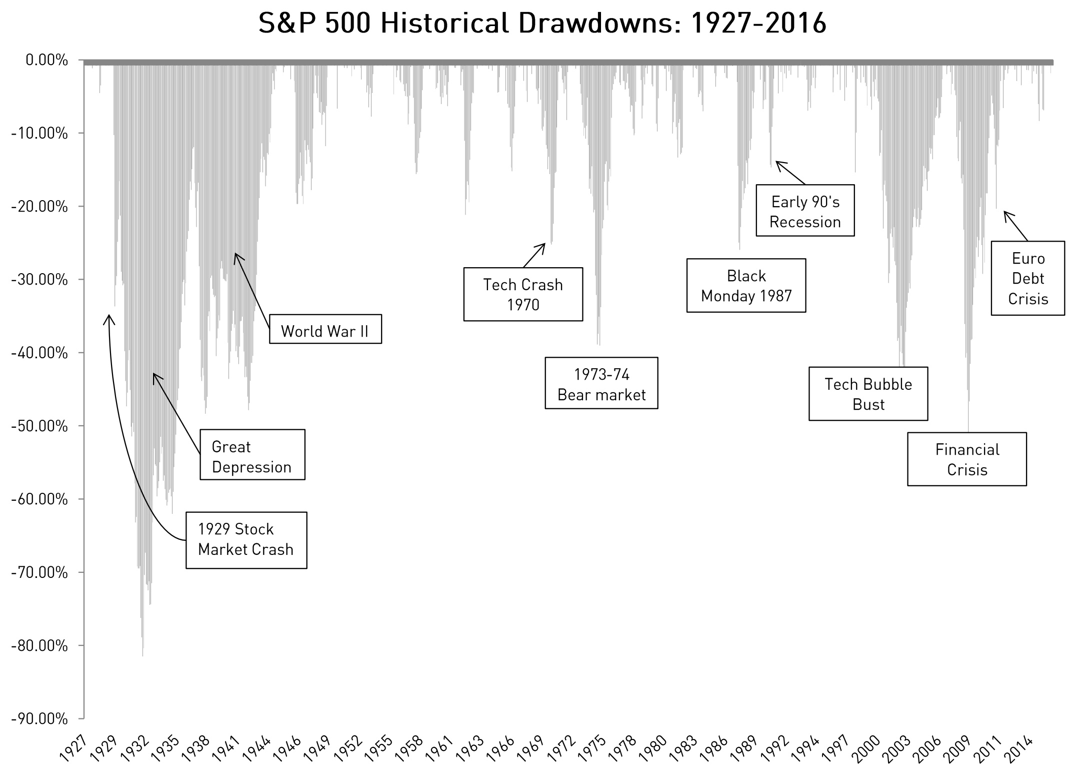
If you have the fortitude, investment time horizon and ability to handle the inevitable drawdowns that markets give us, then you probably should be using passive index funds and save yourself the fees. You have an excellent chance of having higher investment returns over the long run. However, some people (myself included) experience an emotional cost when living through experiences like Mr. Munger's 1973-74 performance. Aplomb and grace would be the last two adjectives to describe my state of being during the second half of 2008. From my experience interacting with clients, most people do not have Mr. Munger's abilities to weather the storm. Furthermore, the emotional distress can often lead to poor decision making. Sadly, I have met many people who pulled their money out at or near the bottom of the last market crash. And who can blame them? For those who locked in losses so that they could have some certainty in retirement, it is not a completely irrational decision. After all, the winter home they were planning on buying in Florida just became a trailer and if they lost another 15% there would be no trailer and they may even have to postpone retirement. I suspect that the number of investors who share Mr. Munger's views is largely a function of where we happen to be in the market cycle. It's easy to follow his advice when times are good and the markets are hitting new highs. It is entirely more difficult during large market drawdowns and many people will learn that they do not have the stomach for it when

[1] "2017 Daily Journal Annual Meeting | Charlie Munger." *YouTube*, uploaded by Buffettology, 1 March 2017, https://www.youtube.com/watch?v=9kxPgk7fNRE.

it arrives. In fact, studies have shown that investors typically come nowhere near earning the market averages.[2] Part of this can be explained by fees but an even larger amount of the difference comes from poor investor timing – adding to their investment portfolio on the way up and withdrawing money after markets decline.

For Mr. Buffett and Mr. Munger, all that matters is getting from point A to point B and everything in between is just noise. This is a good perspective that works for many people. For others, the path their money takes getting from A to B is just as important. Since 1927, the average annual return of the S&P 500 has been 9.95%[3]. That return period included the crash of 1929, the Great Depression, World War II, the 1973-74 bear market, Black Monday in 1987 (when the S&P 500 fell 21% in a single day), the dot.com bubble of 2001 and the financial crisis of 2008. This is by no means an exhaustive list of major drawdowns in market indices. The graph below shows all the historical drawdowns for the S&P 500 from 1927 to 2016:

[2] Jason Zweig. "Just How Dumb Are Investors?" *Wall Street Journal*, 9 May 2014, http://blogs.wsj.com/moneybeat/2014/05/09/ just-how-dumb-are-investors/. BackRock. "Investing and Emotions." https://www.blackrock.com/investing/literature/investor-education/investing-and-emotions-one-pager-va-us.pdf.
[3] Pre-1988: "Standard and Poor's (S&P) 500 Index Data." http://data.okfn.org/data/core/s-and-p-500. Post 1988: Bloomberg SPXT Index from January 1988 to December 2016.



If you have ever wondered why so many people pay fees to invest in market-neutral and low-net hedge funds the answer is in that graph. Depending on your circumstances, it can be a completely rational decision to forgo some return in exchange for a less volatile experience. The 9.95% average annual return produced by the S&P 500 came with a lot of unnecessary drama if you ask me. I would much rather have a 6% or 7% return if it means I get to avoid most of the pitfalls along the way. Even though stock market returns have produced a good average, the distribution pattern has very large "tails" to the downside and upside. A good market neutral or low-net hedge fund is one that does a good job of saving investors from these outlier returns to the downside while still managing to produce a respectable net return.

Balanced funds, which combine fixed income with equities, have done a great job over the last decade at minimizing drawdowns and volatility. They have worked well because equity market declines have often been accompanied by increasing bond prices as investors sought safety. This pattern has been going on for a long time and I believe there is now too much money following this strategy. A time will come when owning bonds will not help an investor to hedge their equity market risk. Worse, owning the bonds will compound the problem.

In his letter, Mr. Buffett writes about a $500,000 public wager he made that, "over a ten-year period commencing on January 1, 2008 and ending on December 31, 2017, the S&P 500 will outperform a portfolio of funds of hedge funds, when performance is measured on a basis net of fees, cost and expenses." Ted Seides, an asset manager who invests in hedge funds, stepped up to the challenge and selected five "fund of funds" to go up against the market. Mr. Buffett is happy to report that with nine years of the wager now complete, the "compounded annual increase to date for the index fund is 7.1%, which is a return that could easily prove typical for the stock market over time." Unfortunately for Mr. Seides, the annual return of his portfolio of hedge funds has averaged only 2.2%[4]. Clearly, Mr. Buffett is on the winning side of this wager and it appears almost certain that the charitable beneficiary he designated will be receiving a large donation next year.

I think Mr. Buffett would be the first to admit that he doesn't care for risk-adjusted returns but for those of us that do the Sharpe ratio is an important statistic. The Sharpe ratio measures the units of return generated by an investment relative to the number of units of volatility. A formula for the calculation is found in the footnotes to this musing. From inception (July 1, 2010) until December 31, 2016, Waratah One produced a Sharpe ratio of 1.52 compared to only 1.17 for the S&P 500 and 0.78 for the S&P/TSX Composite. If Mr. Buffett would like to make another wager with the proceeds going to a charity, I am willing to wager $500,000 with him that:

4 Buffett, Warren. "*Letter to The Shareholders of Berkshire Hathaway Inc.*" 27 Feb. 2017, http://www.berkshirehathaway.com/letters/2016ltr.pdf.

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Over a ten-year period commencing on January 1, 2018 and ending on December 31, 2027, Waratah One will produce a Sharpe ratio[5], net of fees, costs and expenses, higher than the Sharpe ratio of the S&P 500.

Since inception, Waratah One produced a net return after all fees and costs of 6.5% with a standard deviation of 3.7%. Over the next ten years, the S&P 500 might produce a higher average return but I am willing to bet that Waratah One will continue to beat it on a risk-adjusted basis.

I will mail a copy of this musing to Mr. Buffett and hopefully a copy will also find its way to him using the Kevin Bacon method (6 degrees of separation). If this wager is of no interest to Mr. Buffett, I will be eager to hear from any other challengers. I have included an appendix to this musing containing some relevant statistics for the Waratah One Fund that can be used to assess the odds for this wager.

Brad Dunkley

7 March 2017

[5] Sharpe ratio calculated using risk free of rolling Canada three Month Government Bond yield. Observed (ex post) Sharpe ratio annualized using monthly differentials calculated using methodology in: http://www.stanford.edu/~wfsharpe/art/sr/sr.htm.

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Appendix: Waratah One Fund Risk Statistics Since Inception

Top 10 Worst Months (July 1, 2010 to January 30, 2017)						
	S&P 500		S&P/TSX Composite		Waratah One	
1	-7.0%	Sep 2011	-8.7%	Sep 2011	-2.5%	Jan 2014
2	-6.0%	Aug 2015	-6.1%	May 2012	-2.1%	Jan 2016
3	-6.0%	May 2012	-4.0%	Aug 2015	-1.2%	Aug 2011
4	-5.4%	Aug 2011	-4.0%	Sep 2014	-1.2%	Aug 2015
5	-5.0%	Jan 2016	-3.8%	Jun 2013	-1.1%	Sep 2014
6	-4.5%	Aug 2010	-3.7%	Sept 2015	-1.1%	May 2012
7	-3.5%	Jan 2014	-3.3%	Jun 2011	-1.0%	Dec 2015
8	-3.0%	Jan 2015	-3.1%	Dec 2015	-0.9%	Feb 2016
9	-2.9%	Aug 2013	-2.8%	Jun 2015	-0.9%	Mar 2012
10	-2.5%	Sep 2015	-2.5%	Jul 2011	-0.8%	Nov 2015

Top 10 Worst Days (July 1, 2010 to January 30, 2017)						
	S&P 500		S&P/TSX Composite		Waratah One	
1	-6.6%	Aug 8, 2011	-4.0%	Aug 8, 2011	-1.1%	Mar 6, 2012
2	-4.8%	Aug 4, 2011	-3.4%	Aug 4, 2011	-1.1%	Feb 22, 2011
3	-4.5%	Aug 18, 2011	-3.3%	Sep 22, 2011	-1.0%	Aug 6, 2015
4	-4.4%	Aug 10, 2011	-3.2%	Oct 3, 2011	-1.0%	Feb 5, 2016
5	-3.9%	Aug 24, 2015	-3.1%	Aug 18, 2011	-1.0%	Sep 22, 2011
6	-3.7%	Nov 9, 2011	-3.1%	Aug 24, 2015	-1.0%	Aug 21, 2015
7	-3.6%	Jun 24, 2016	-3.0%	Jun 21, 2012	-0.9%	Apr 15, 2013
8	-3.2%	Sep 22, 2011	-2.7%	Sep 1, 2015	-0.9%	Sep 28, 2015
9	-3.2%	Aug 21, 2015	-2.7%	Sep 28, 2015	-0.8%	May 17, 2012
10	-3.0%	Sep 1, 2015	-2.7%	Apr 15, 2013	-0.8%	Jan 13, 2016

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Top 10 Worst Drawdowns Measured Monthly (July 1, 2010 to January 30, 2017)						
	S&P 500		S&P/TSX Composite		Waratah One	
1	-16.3%	May 2011 to Sep 2011	-16.5%	Apr 2011 to Sep 2011	-4.7%	Nov 2015 to Feb 2016
2	-8.4%	Aug 2015 to Sep 2015	-14.3%	Sep 2014 to Jan 2016	-2.5%	Jan 2014
3	-6.6%	Apr 2012 to May 2012	-8.2%	Mar 2012 to May 2012	-2.0%	May 2012 to Aug 2012
4	-6.6%	Dec 2015 to Feb 2016	-4.3%	Mar 2013 to Jun 2013	-1.4%	Aug 2014 to Sep 2014
5	-4.5%	Aug 2010	-1.9%	Nov 2011 to Dec 2011	-1.3%	Aug 2015 to Sept 2015
6	-3.5%	Jan 2014	-1.3%	Nov 2012	-1.2%	Aug 2011
7	-3.2%	Dec 2014 to Jan 2015	-0.2%	May 2014	-1.2%	Feb 2012 to Mar 2012
8	-2.9%	Aug 2013			-0.8%	Sep 2016 to Oct 2016
9	-1.9%	Jun 2015			-0.6%	Apr 2013
10	-1.8%	Oct 2012			-0.6%	Jun 2015

Top 10 Worst Drawdowns Measured Daily (July 1, 2010 to January 30, 2017)						
	S&P 500		S&P/TSX Composite		Waratah One	
1	-18.6%	May 2, 2011 to Oct 3, 2011	-21.5%	Apr 16, 2015 to Jan 20, 2016	-6.6%	Oct 30, 2015 to Feb 9, 2016
2	-13.0%	Jul 21, 2015 to Feb 11, 2016	-20.6%	Apr 6, 2011 to Oct 4, 2011	-3.7%	Jul 25, 2014 to Oct 15, 2014
3	-9.6%	Oct 31, 2011 to Nov 25, 2011	-11.7%	Sep 4, 2014 to Dec 15, 2014	-3.5%	Feb 15, 2011 to Mar 16, 2011
4	-9.6%	Apr 3, 2012 to Jun 1, 2012	-10.9%	Feb 29, 2012 to May 18, 2012	-3.2%	May 3, 2012 to Jun 7, 2012
5	-7.3%	Sep 17, 2012 to Nov 15, 2012	-8.3%	Oct 31, 2011 to Nov 25, 2011	-2.9%	Jan 2, 2014 to Feb 3, 2014
6	-7.3%	Sep 19, 2014 to Oct 15, 2014	-7.2%	Mar 13, 2013 to Jun 24, 2013	-2.7%	Aug 6, 2015 to Aug 25, 2015
7	-7.0%	Aug 10, 2010 to Aug 26, 2010	-5.7%	Feb 1, 2016 to Feb 11, 2016	-2.4%	Sep 19, 2011 to Oct 3, 2011
8	-6.3%	Feb 22, 2011 to Mar 16, 2011	-5.6%	Dec 1, 2011 to Dec 15, 2011	-2.2%	Mar 7, 2013 to Apr 23, 2013
9	-5.7%	Jan 16, 2014 to Feb 3, 2014	-5.5%	Nov 2, 2012 to Nov 15, 2012	-2.1%	Nov 10, 2010 to Nov 16, 2010
10	-5.6%	May 22, 2013 to Jun 24, 2013	-5.0%	Mar 7, 2011 to Mar 16, 2011	-1.9%	Mar 12, 2012 to Mar 29, 2012

Legal Information and Disclosures

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