MANAGED ASSET PORTFOLIOS

Value versus Growth - White Paper Series Part II

Is there Value in Value? February 2016

Executive Summary

The conversation about whether to allocate assets towards value stocks or growth stocks has recently become a pertinent debate. Since 2010, those arguing in favor of growth have had the upper hand. Using the Russell 1000 Growth and Russell 1000 Value ETF's as proxies, from 2010 to 2015, the growth ETF outperformed its value counterpart by 2246 basis points. Because of this outperformance and the positive feedback loop prevalent in the markets, investors are currently flocking to growth stocks while shunning value stocks.

Within the growth category, certain stocks have attracted more attention than others, especially the FANG (Facebook, Amazon, Netflix, and Google) stocks. The performances of the FANG's along with a handful of other names including Visa, General Electric, McDonald's, Home Depot, Nike, Starbucks, and Microsoft have supported the broader indices, while the remaining 98% of stocks in the S&P 500 detracted from overall performance. As a result of this outperformance, investors are continuing to herd into these securities and have pushed their valuations to extreme levels. These investors argue that growth stocks have a large competitive advantage in their respective markets and will be able to grow into these valuations. They have seemingly forgotten the distinction between a great stock and a great company.

History demonstrates that piling into these crowded and overvalued securities while allocating assets away from value stocks is costly. Stocks such as the FANG's set up investors for a future of lower expected returns and large potential drawdowns. Conversely, value stocks have a proven long-term track record and offer investors the potential for periods of large outperformance over growth stocks once market sentiment shifts. Two such instances in the past 100 years occurred in the early 1970's with the Nifty Fifty and in the late 1990's with the Dot-Com bubble. During both of these periods, growth stocks grossly outperformed value stocks and investors pushed up their valuations to extreme levels. However, once the euphoria left the

marketplace many growth investors were left holding the bag as their returns dramatically suffered. Patient investors who never forgot that intrinsic value and price were inextricably linked were rewarded for their patience as value stocks went on to outperform growth stocks by a large margin in the following five and ten year periods. Here in 2016, with many stock markets having their some of their worst starts to a year ever, we feel it is crucial to remind investors about the value of value stocks and the pitfalls of investing in high valuation growth stocks.

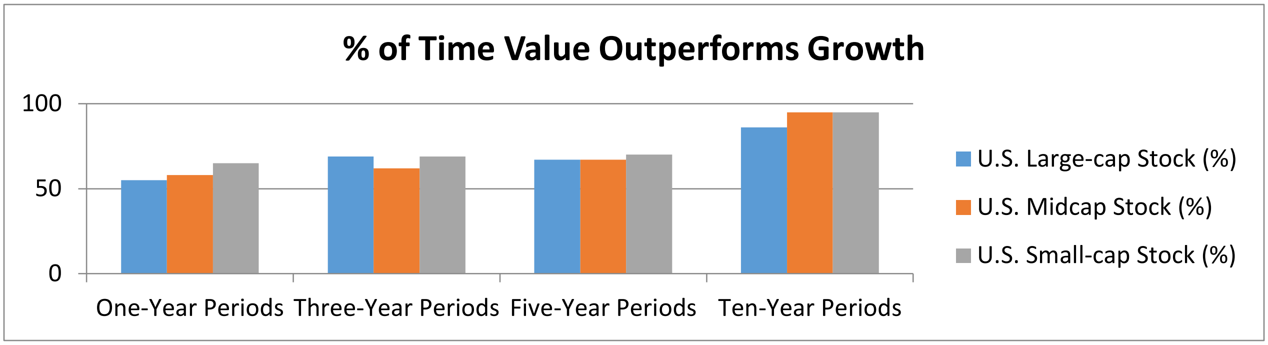
A Historic Start to the Year

Over the past year, MAP has authored several notes and given presentations about the dichotomy in performances between value and growth stocks (stocks with the lowest valuations and those with the highest valuations, respectively). Now that 2015 has concluded, value managers are having to answer difficult investor questions after a second year of underperforming their growth counterparts. In 2015, growth stocks as measured by the Russell 1000 Growth ETF outperformed their peers in the Russell 1000 Value ETF by 946 basis points returning 5.49% compared to a 3.97% loss for value stocks.[1] This underperformance, which began in the latter half of 2014, has resulted in growth stocks outperforming value stocks by 2246 basis points from 2010 to 2015.[1] Growth's drastic outperformance has caused some investors to lose sight of the bigger picture, which is that value stocks outperform growth stocks over the long term. History has demonstrated that abandoning value stocks during periods of underperformance can be a costly mistake. For example, between 1980 and 2010, small and mid-cap value stocks outperformed their respective growth counterparts on a rolling ten year basis 95% of the time, while large-cap value outperformed large-cap growth 86% of the time.[2] With stock indices around the world including the MSCI ACWI, S&P 500 and Dow Jones Industrial Average having

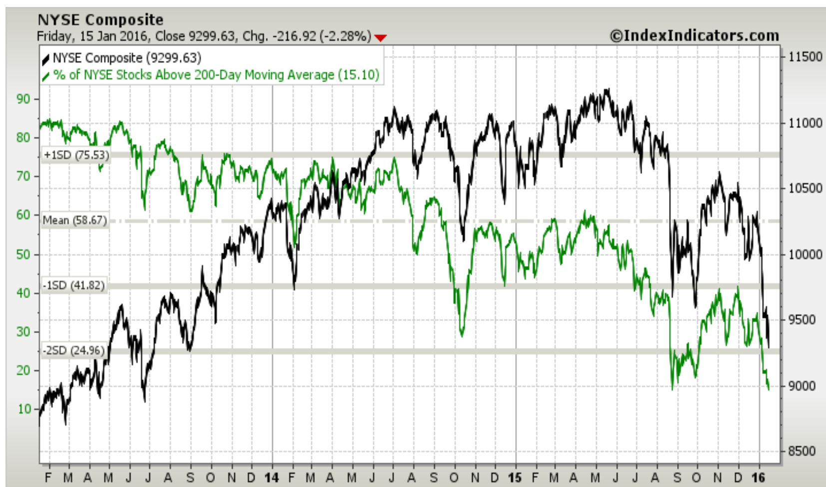
Chart Courtesy of Bloomberg

[1] Bloomberg Data
[2] Fidelity

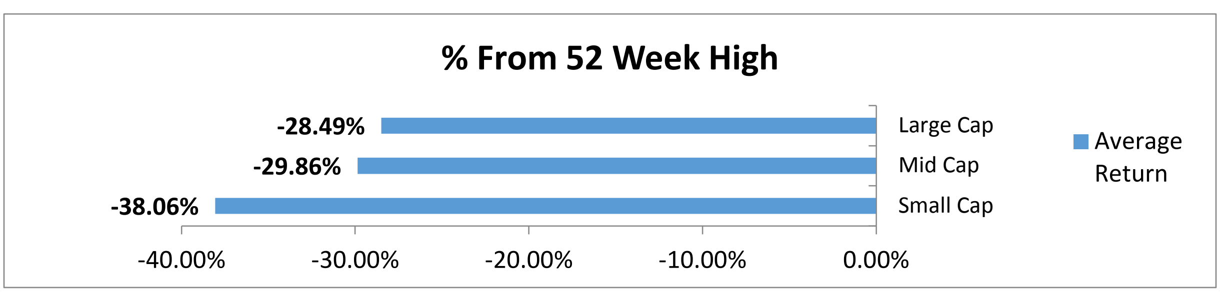
some of their worst starts to a year ever, we feel it is important to remind investors about the importance of value investing and the dangers of investing in stocks with extreme valuations.



Technical Warning Sign: Breadth



Before we get started, it is critical to note that the indices have been deceivingly stable throughout 2015 as the internals of the market deteriorated sharply. Since the middle of 2014, the market breadth, as defined by the percentage of stocks above their 200 day moving average, began to decline. Digging deeper into the internals of the averages, one can observe just how bad this deterioration has been. As of January 21, 2016, the average small, mid and large cap stock were all in bear market territory; with the average large and small cap stock down 28.49% and 38.06%, respectively. As of this same date the S&P 500 was down 12.67% from its 52 week highs back in May 2015.[3]



[3] Bloomberg Data

The Divergence Continues

So one may ask: With many of the S&P 500's components in bear market territory, how is it that the broader indices have held up so well? In MAP's view, the indices have been propped up by an ongoing and increasing divergence in the performances between high and low valuation stocks. This divergence is the highest it has been since the Dot-Com bubble. To support our argument, we divided the S&P 500, MSCI ACWI Ex US, and the Russell 2000 into quartiles based on different valuation metrics: price-to-earnings, price-to-sales, and price-to-book. Taking the average returns for each quartile, the securities in the first quartile or the one's with the highest valuations outperformed the other quartiles by a wide margin. In the S&P 500, as of the end of 2015, the average one year return for stocks in the highest valuation quartile was 11.63%; which was more than 1000 basis points above the 1.53% return for the next quartile of securities and more than 1500 basis points above the third quartile's average return of -4.38%.[4]

	Valuation Metric	4th Quartile			3rd Quartile			2nd Quartile			1st Quartile		
		MTD Returns	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*
S&P 500	Price-to-Earnings	-5.28%	-0.32%	-15.37%	-3.03%	4.59%	-5.55%	-0.47%	6.93%	4.84%	-0.88%	8.31%	12.20%
	Price-to-Sales	-4.51%	-1.70%	-14.65%	-3.12%	5.66%	-2.54%	-1.87%	6.37%	-0.31%	-0.90%	8.64%	11.31%
	Price-to-Book	-5.06%	0.94%	-13.81%	-3.23%	3.58%	-5.07%	-1.34%	6.62%	0.05%	-0.68%	7.99%	11.37%

	Valuation Metric	4th Quartile			3rd Quartile			2nd Quartile			1st Quartile		
		MTD Returns	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*
MSCI ACWI Ex US	Price-to-Earnings	-2.69%	0.28%	-14.52%	-1.87%	3.37%	-7.14%	-1.36%	4.20%	-1.25%	-1.33%	4.63%	4.64%
	Price-to-Sales	-3.99%	0.12%	-11.47%	-2.53%	2.43%	-7.18%	-1.46%	3.56%	-6.24%	-0.78%	4.20%	-0.40%
	Price-to-Book	-3.93%	-1.12%	-19.36%	-2.11%	2.34%	-6.69%	-1.08%	4.73%	-2.19%	-1.72%	4.35%	2.72%

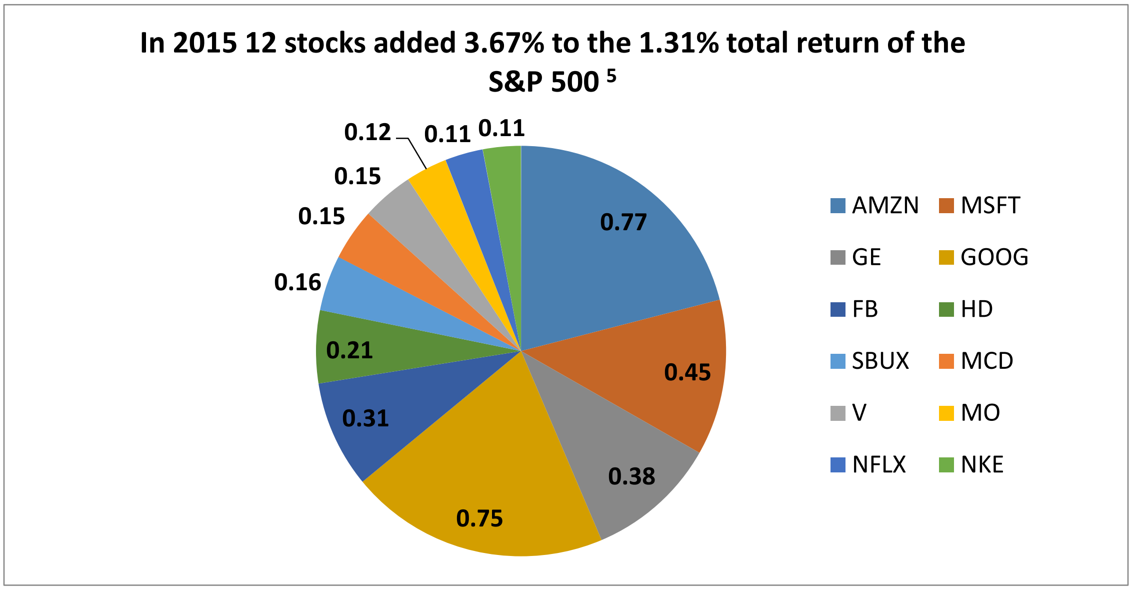
	Valuation Metric	4th Quartile			3rd Quartile			2nd Quartile			1st Quartile		
		MTD Returns	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*	*MTD Returns*	*QTD Retuns*	*1 Year Returns*
Russell 2000	Price-to-Earnings	-7.65%	-2.75%	-16.57%	-5.22%	4.27%	0.63%	-4.10%	6.03%	1.80%	-3.61%	7.70%	6.24%
	Price-to-Sales	-9.05%	-5.77%	-27.05%	-5.03%	4.43%	-6.01%	-3.88%	6.03%	1.05%	-3.48%	11.44%	8.99%
	Price-to-Book	-8.43%	-6.58%	-24.51%	-4.93%	4.46%	-5.30%	-4.30%	5.81%	-4.76%	-2.63%	12.10%	14.17%

"FANG" Carries the Indices

To further illustrate just how few stocks have supported the broader indices, we analyzed the return for the S&P 500. In total, which includes capital appreciation and dividends, the S&P 500 gained 1.31% in 2015. It's interesting to note that without the help of the top 12 performing stocks, the S&P 500 would have lost 2.36%.[4] As these top 12 companies outperformed the remaining 98% of the index, they have dominated investor and financial media discussions. Catchy acronyms like FANG (Facebook, Amazon, Netflix and Google) were coined, while stocks like Visa, Nike, Microsoft, Starbucks, Home Depot, General Electric and McDonald's were praised for their large outperformance. While the latter group still traded at lofty valuations as of

[4] Bloomberg Data

December 31, 2015, carrying an average price-to-earnings multiple of 28 and a price-to-sales multiple above 5, compared to the S&P 500's price-to-earnings multiple of 18.26 and price-to-sales multiple of 1.8; let's focus on the FANG stocks, which have become the epitome of irrational investor psychology. [5]



In the 1990's investment managers talked about the idea of the "greater fool theory". Right after the 2008 housing crash, this concept was renamed "the positive feedback loop". Regardless of its semantics, the theory states that investors will occasionally buy a stock (or any asset) as they see prices rise. The more the price rises, the more investors feel compelled to buy. The cycle becomes self-perpetuating and has played a role throughout history in pushing asset prices to distorted levels. This positive feedback loop has played a hand in helping the FANG's achieve their extraordinarily expensive multiples.

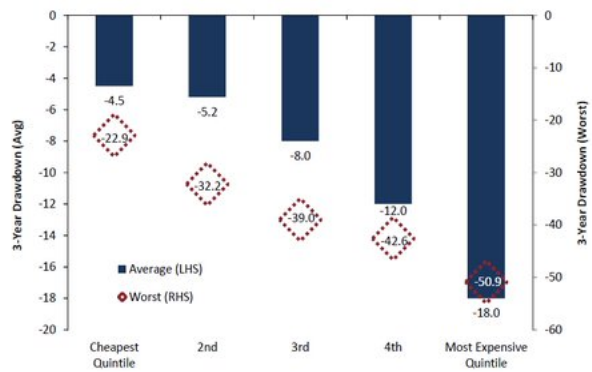
Great Companies Do Not Make Great Stocks

While it is hard to argue that the FANG stocks are not great companies, their valuations have reached levels that are unfathomable to the rational investor. As of December 31, 2015, the weighted price-to-earnings multiple for the FANG stocks was 315.14 and the weighted price-to-sales multiple was 8.98. The lowest P/E multiple amongst the four, was Google's at 36.43 and the highest belonged to Amazon at 979.55.[5] Purchasing companies at these kinds of valuations inevitably sets up investors for a future of lower expected returns and the possibility of sharp declines as investors' euphoria quickly morphs to panic. History has shown that stocks trading

[5] Bloomberg Data

in the highest valuation quintile tend to suffer the largest three year drawdown, averaging 18% and at worst over 50%.[6] Investors who try to rationalize that these multiples are justified based on predictions of future earnings and revenue growth are overly optimistic about these companies' competitive advantages. Take Amazon for instance. In order for Amazon to double its market capitalization over the next decade, it would need it to grow over 7% annually. Let's say that at the end of that period, it trades at a P/E multiple of 21.9; a large premium over the ten year average of 15.7 for the S&P 500, but still reasonable given the company's growth, brand and competitive position.[7] In order to "grow" into this multiple, Amazon will need to grow its earnings 55.1% annually over that time period. While this type of earnings growth is not completely unachievable, it is highly unlikely given the natural competitive forces in the marketplace. The movie plays similarly for Netflix, which under the same conditions, would need to grow earnings 38.3% annually for 10 years.[8] Again not impossible, but competition from HBO, Hulu, YouTube, and possibly others including Apple, make a decade of growing by nearly 40% highly improbable. As companies become more ubiquitous, investors become overly optimistic about their futures and fail to remember the risks embedded in their stocks. The scary thing is that we have seen this play out before and the ending is never pretty. As George Santayana once said "those who do not learn history are doomed to repeat it."

Exhibit 7: Value Can Help by Dampening Drawdowns:
Three-Year Drawdown, from Starting Valuation* (S&P 500, from 1940)



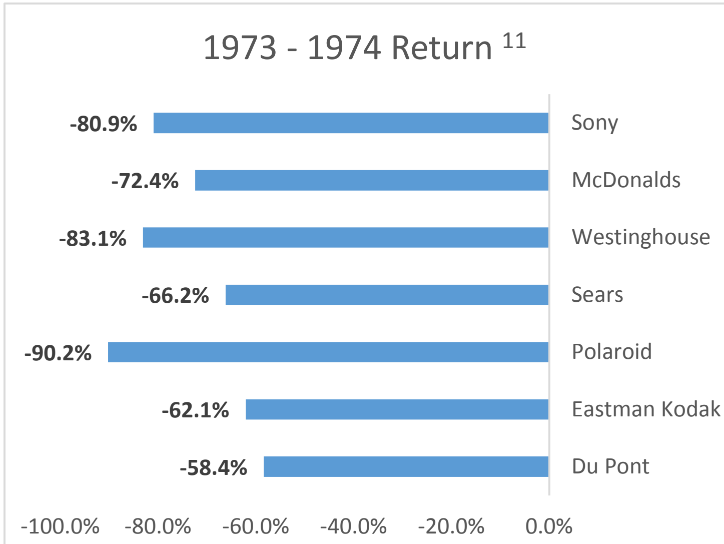
Source: GMO, Hussman Funds, 1940-2012
*10-Year P/E
Cheapness/expensiveness is determined by the Cyclically Adjusted Price/Earnings (CAPE) ratio, otherwise known as Shiller P/E.

Euphoria Revisited: The Nifty Fifty

In the 1970's, there was a group of stocks, the Nifty Fifty, which were deemed worthy by investors of extreme valuations. The stocks were purchased at any level based on the "new-era" doctrine that essentially stated that these blue chip companies were sound investments

[6] Chiappinelli, Peter, and Ram Thirukkonda. "Who Ate Joe's Retirement Money? Sequence Risk and its Insidious Drag on Retirement Wealth." GMO, Aug. 2015.
[7] Factset
[8] O'Shaughnessy, Patrick. "Fun with F.A.N.G." *Investor Field Guide*.

regardless of their prices. Investors would justify the purchase of these “one-decision” stocks because they believed that they would ultimately grow into their lofty valuations. This mindset caused investors to herd into these companies which included McDonald’s, Xerox, Polaroid, Eastman Kodak, Sears, and Westinghouse. These investments initially appeared sound, and delivered extraordinary returns for their investors. Between the end of 1964 and the summer of 1972, the Nifty Fifty outperformed the S&P 500 by 189%, equivalent to 15% annually.[9] The positive feedback loop was in full effect and pushed the valuations of these companies well above their historic means. By 1972, stocks like Polaroid were trading at a P/E multiple of 90.7, McDonalds at 85.7, Avon at 65.4 and Eastman Kodak at 48.2.[10] With valuations this high, little support was found once the euphoria in the marketplace evaporated. The same companies that enjoyed parabolic gains, declined precipitously. Between 1973 and 1974, Polaroid lost 90.2%, McDonalds dropped 72.4% and Eastman Kodak declined 62.1%.[11] Similar carnage ripped throughout the Nifty Fifty stocks. However, as growth investors who bought into the Nifty Fifty doctrine were suffering losses not seen since the great depression, value investors who stayed steadfast to their investment beliefs were rewarded handsomely. In the five years following 1972, value outperformed growth by 87.35% or on average by 13.37% a year. On a ten year basis value outperformed growth by 95.75% or on average 6.94% a year. [12]

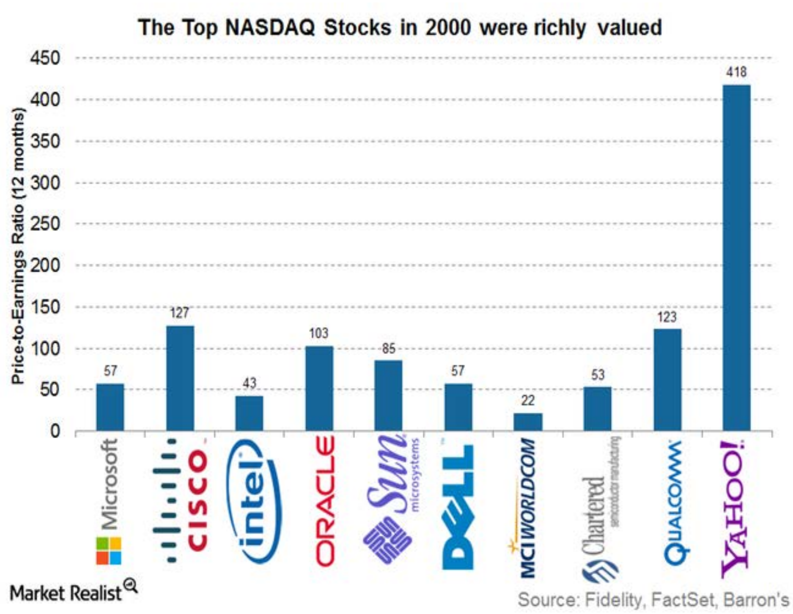


“Irrational Exuberance”: The Dot-Com Bubble

A more recent example of when irrational exuberance took ahold of the markets was the dot-com era. Growth investors embraced the rationale that the proliferation of the internet would be world changing and that the companies who were getting in on the ground floor would eventually end up as the big winners. While investors had the first part of the thesis correct, the

[9] Wall, Emma. "The New Nifty Fifty Shares." *The Telegraph*. N.p., 22 Oct. 2011.
[10] Pomona College. *The Nifty-Fifty Re-Revisited*. Pomona College. N.p.: Department of Economics
[11] Hussman, John P. *Hussman Econometrics*. N.p., May 1998.
[12] French, Kenneth, and Eugene Fama. *Fama/French Data Library*. Dartmouth College

internet has changed the world; most overestimated internet companies' ability to monetize this rapidly evolving market. Metrics like "Network Theory", were created to help investors 'properly' value earning-less companies. As a quick primer, Network Theory stated that the value of a network increased as its nodes increased regardless of a company's ability to use the nodes to generate profit. Similarly, investors valued companies based on the number of clicks or eyeballs that were visiting their pages without any serious thought of how these companies were going to turn these clicks and eyeballs into monetized customers. Towards the end of the bubble, its hysteria was pervasive throughout the entire marketplace. In 1999, 446 firms went public through IPO's and achieved an average first day return of 71%. During their first day of trading companies like Foundry Networks gained 525%, Theglobe.com soared 606% while VA Linux set an all-time record as they gained 698%.[13] Most of these companies had yet to even earn a single penny in profit. By March 2000, right before the bubble burst, the Nasdaq Composite had a market cap of \$6.71 trillion and a P/E multiple of 175.[14] Some companies within the composite like Yahoo traded at 418x trailing twelve month earnings, Qualcomm had a trailing P/E of 123, and Cisco sported a lofty P/E multiple of 127.[15] These three companies are highlighted because they are all arguably great companies and are still relevant today – 16 years later. They simply did not justify the multiples they were trading at in 2000. Like the demise of the Nifty Fifty, we know the internet bubble ended poorly. By October 2002, the NASDAQ had lost more than \$5 trillion in market value. Many of the overpriced companies that investors chased in the late 1990's proved to be worthless. Two years after the bubble popped 762 internet firms had filed for bankruptcy.[16] It took the NASDAQ fifteen years to retake the highs attained in March 2000.



[13] Liu, Qiao, and Frank Song. *The Rise and Fall of Internet Stocks: Should Financial Analysts be Blamed?*

[14] Geier, Ben. "What Did We Learn From the Dotcom Stock Bubble of 2000?." *Time*. Time Warner, 12 Mar. 2015

[15] Market Realist, Fidelity, FactSet, Barron's

[16] Kopsell, Hauke, and Stefan Lienkamp. "Dot-com bubble 2.0? An Empirical Analysis of Market Dynamics in the Technology Industry." *Copenhagen Business School* (2015)

Many of the companies that survived the bubble bursting are still trading at huge discounts to their all-time highs. As technology investors were reeling from the damage suffered from the crash, value investors who were mocked for not jumping into the fray were rewarded for their patience. In the five years following 1999, value outperformed growth by 108.8% or on average by 15.85% a year. Over the following 10 years, the results are similar as value outperformed growth by a total of 113.75% or 7.89% a year. [17]

Conclusion

No one will ever argue that growth stocks are currently in a bubble or that any of these stocks are not great companies. However, investors should remember that asset prices and intrinsic values are ultimately linked. We have seen throughout history, whether it be Tulip Mania, the Roaring Twenties, the Nifty Fifty, or the Dot-Com bubble, that optimistic investors occasionally push prices and valuations to levels beyond what any rational analysis of intrinsic value can justify. This mentality is perpetuated through a positive feedback loop which encourages investors to pile into whatever is winning. These instances have demonstrated that the ride up is joyful, but the ensuing freefall leaves many casualties. This same mindset has infected the markets today. The FANG stocks have become all the rage, and with a weighted P/E of 315.14, their valuations have reached euphoric levels. They and a handful of other stocks have supported the broader indices. As global markets started 2016 turbulently, and the FANG stocks have begun to show cracks in their armors, investors need to ask how their valuations will react if investors in these names change their views. History suggests that the painful end is near for these high fliers, while value investors that held steadfast in their investing beliefs will be amply rewarded.

Sincerely,

Managed Assets Portfolios Investment Management Team:

Michael Dzialo, Peter Swan, Karen Culver, John Dalton, and Zack Fellows.

[17] French, Kenneth, and Eugene Fama. *Fama/French Data Library*. Dartmouth College