



BARROW STREET

ADVISORS

The Power of Quality-Meets-Value: Focus on U.S. Mid-Caps

Equity Research

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It should not be assumed that client account holdings will correspond directly to the Russell Midcap Index. The Russell Midcap is an index that shows the measure of the performance of the mid-cap segment of the U.S. equity universe. The Russell Midcap Index is a subset of the Russell 1000® Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap Index represents approximately 31% of the total market capitalization of the Russell 1000 companies. Gross dividends are included in the daily total return calculation of the index on the basis of their ex-dates. Securities held in the top mid-cap QMV portfolio may differ materially from the securities that comprise the Russell Midcap, and the top mid cap QMV portfolio will generally consist of a smaller concentration of securities. Thus, the top mid cap QMV portfolio may be affected more by price changes in underlying securities compared to a more diversified portfolio.

Comparisons to indices and other benchmarks are inherently unreliable indicators of future performance. In particular, the strategies used to generate the performance of the portfolio vary greatly from those used to generate the returns depicted in the benchmarks. In addition, the results of the portfolio do not reflect the unrealized returns to an investor after deduction of all operational expenses, management fees and performance allocations, and we can make no representations as to the methodology used to generate the benchmark returns.

Historical performance results for investment indices and/or categories have been provided for general comparison purposes only, and generally do not reflect the deduction of transaction and/or custodial charges, the deduction of an investment management fee, nor the impact of taxes, the incurrence of which would have the effect of decreasing historical performance results. It should not be assumed that your account holdings correspond directly to any comparative indices.

Quality-meets-Value Research

- We believe that Barrow’s research indicates that selecting individual stocks at the intersection of Quality and Value (“Quality-meets-Value”)¹ delivers a more attractive return than blending Quality portfolios with Value portfolios ([see our Quality-meets-Value research](#))
- Our research also reveals that across all market caps within seven of the ten GICS sectors, names ranked for Quality-meets-Value generally outperform those that do not meet our Quality-meets-Value criteria²

Market-Cap Focus

- This research piece focuses on the power of Quality-meets-Value in the Mid-Cap segment
- Test whether being more selective within our ranked universe, by picking stocks from finer quantiles³, produces better results
- Our findings are consistent with the broader conclusions in our earlier study ([see our Quality-meets-Value research](#))

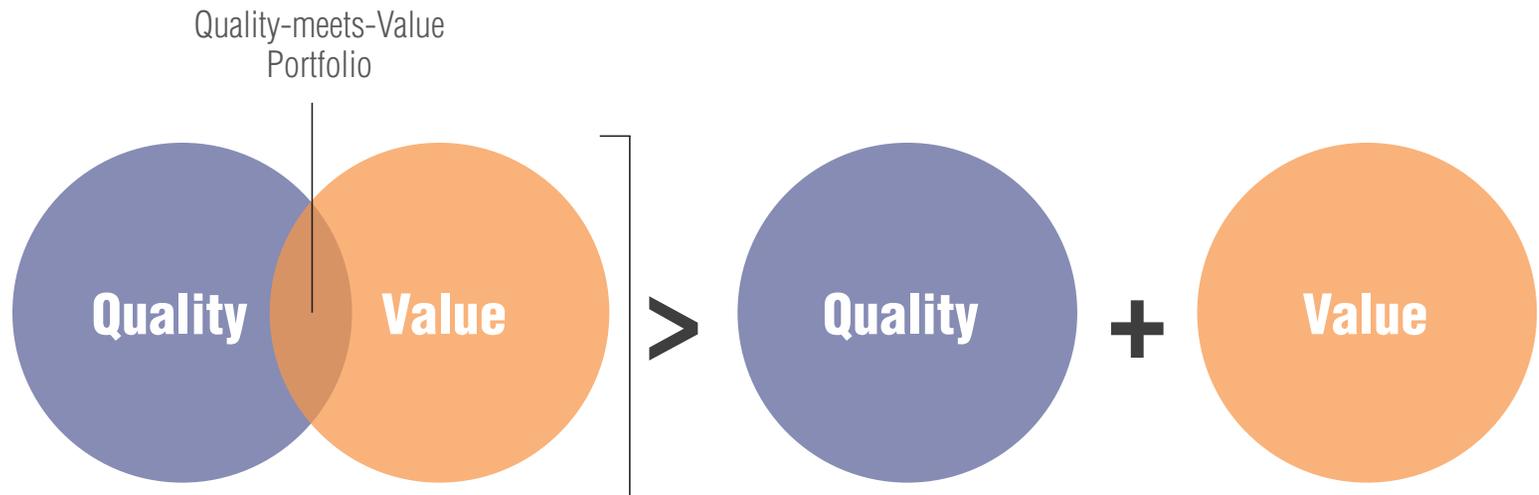
¹ Barrow Street Advisors ranks its investable universe of U.S. stocks, based on its proprietary Quality-meets-Value approach. Barrow Street Advisors constructs its investable universe of U.S. stocks by beginning with every U.S. publicly traded stock (~10,000 stocks) which is then reduced by excluded sectors (Financials, Utilities, Telecommunications), excluded stocks with insufficient information, excluded stocks with low liquidity, excluded stocks with high leverage and then excluded stocks by market cap. Companies which rank higher tend to exhibit stronger Quality and Value metrics while also falling at the intersection of the two. Barrow defines Quality as high earnings power, profit margins and insider ownership among other metrics. We define Value as low enterprise value to cash flow and substantial discount to intrinsic value among other metrics. The intersection of the two is when a stock exhibits both characteristics simultaneously.

² A quantile is a set of values that divides a population into equal groups, each group containing the same fraction of the total population. A percentile divides the population into 100 equal groups with each group representing 1%, a decile divides the population into ten equal groups with each group representing 10%, a quintile divides the population into five equal groups with each group representing 20%, and a quartile divides the population into four equal groups with each group representing 25%.

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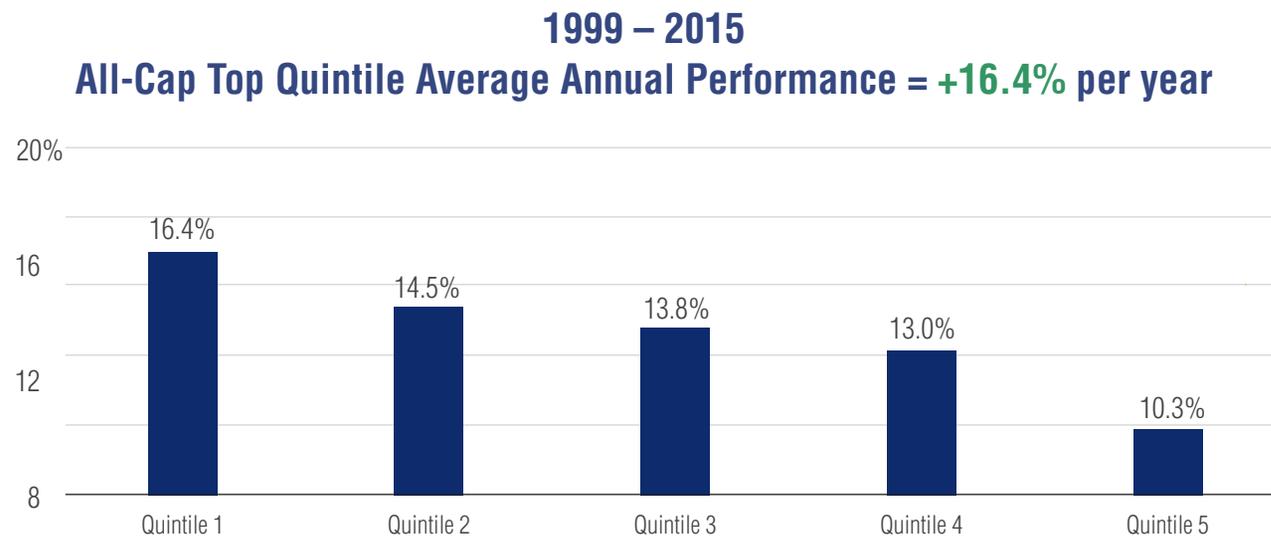
Barrow's Philosophy:

We believe that selecting individual stocks at the intersection of Quality and Value ("Quality-meets-Value")¹ delivers a more attractive return than blending Quality portfolios with Value portfolios



All-Cap Research Recap:

1. Over the time period 1999-2015, average annual returns followed expectations, as portfolios with better Quality-meets-Value outperformed those with lesser¹
2. This was also true when measured by calendar year where the top quintile² surpassed the data set's average return in 13 of 16 calendar years, or 81% of the time



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Mid-Cap Hypothesis:

- We believe Mid-Cap stocks with coincidence of strong Quality and Value will outperform those with coincidence of weak Quality and Value
- We believe securities rank-ordered by Quality-meets-Value should perform in order of those ranks¹
 - At least, the top half should outperform the bottom half
 - At best, results should hold monotonically for narrower quantiles (deciles, quintiles, quartiles)²

Test:

- Use point-in-time databases³ to avoid using information which would have been unavailable at the time of ranking (earnings restatements, etc.)
- Use a time period covering three economic cycles (1999-2015)

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³ For this analysis Barrow used S&P Capital IQ Research Insight and Bloomberg.

Process:

- Assemble a universe of U.S. Mid-Cap equities
- Pull financial statements for over 2,000 companies¹ going back to December 1998
- Measure and rank Quality-meets-Value using fundamentals-based criteria
- Construct portfolios every calendar quarter representing top through bottom quintiles of Quality-meets-Value ranking, on a sector basis²
- Measure performance of each portfolio over a 12-month holding period

Key Facts:

- 62 quarterly selections of 5 portfolios each quarter = 310 portfolios built
- Financial fundamentals were evaluated using only point-in-time data³
- Seven of the ten GICS sectors are represented each with an equal weighting²

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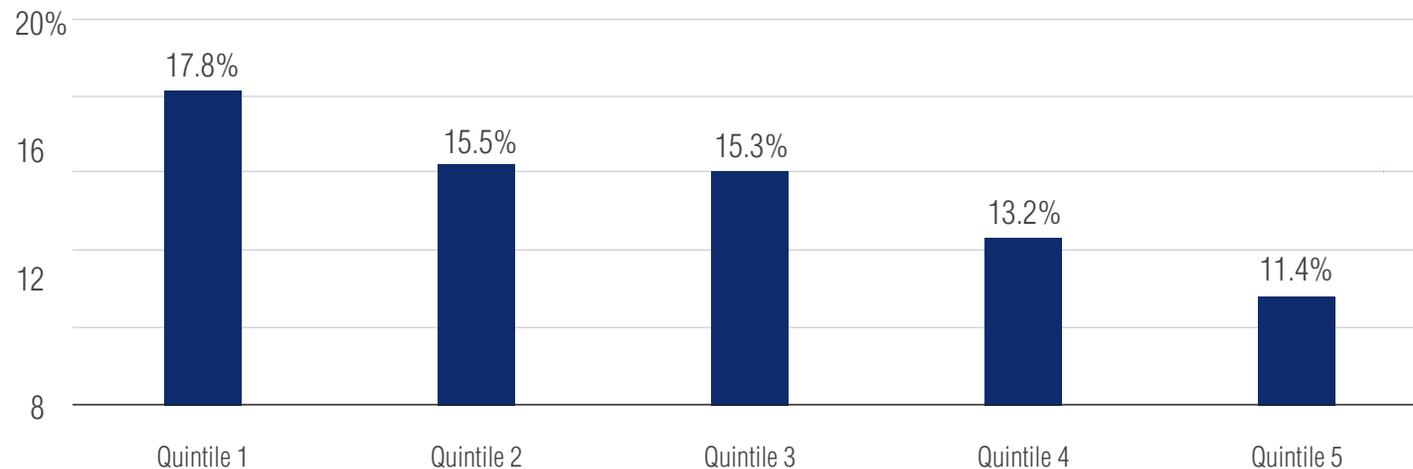
² 14.29% weighting to each of the seven sectors: Energy, Materials, Industrials, Consumer Discretionary, Consumer Staples, Health Care and Information Technology.

³ For this analysis Barrow used S&P Capital IQ Research Insight and Bloomberg.

Mid-Cap Research:

1. Over the time period 1999-2015, average annual returns followed expectations, as portfolios with better Quality-meets-Value attributes outperformed those with lesser¹

U.S. Mid-Cap Universe - 1999 – 2015 Top Quintile Average Annual Performance = +17.8% per year²



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As a further research step, we analyzed results for the Top 5th percentile (“Top Mid-Cap QMV Portfolio”):

Research Process

- U.S. Mid-Cap stocks drawn primarily from Top 5th Percentile of Quality-meets-Value by sector¹
- Concentrated with roughly 60 positions
- Re-ranked and rebalanced each quarter
- Intentionally diversified across industry groups²
- 62 quarterly portfolios held for one-year each, successively layering on top of each other

¹ In some instances, due to Barrow Street Advisors rules based portfolio construction methodology which includes minimum diversification requirements by sector, it is possible to select stocks that fall outside the top 5th percentile of Barrow's investable universe.

² Implement static weights for the portfolio of 10% energy, 10% materials, 8% industrials, 20% consumer discretionary, 20% consumer staples, 20% health care, and 12% technology.



Calendar Year Summary

As of 10/31/15

	Research Results			Market Environment
	Top Mid-Cap QMV Portfolio ¹	Barrow Mid-Cap Universe ²	Δ (Difference)	S&P 400 TR Index ³
Since Inception 12/31/99	1217.5%	503.4%	+714.1%	301.1%
2015	4.1%	-0.2%	+4.3%	0.7%
2014	9.2%	13.0%	-3.8%	9.8%
2013	50.9%	39.0%	+12.0%	33.5%
2012	24.1%	15.3%	+8.8%	17.9%
2011	8.1%	5.8%	+2.3%	-1.7%
2010	21.5%	30.5%	-9.0%	26.6%
2009	60.7%	44.4%	+16.3%	37.4%
2008	-34.3%	-36.1%	+1.8%	-36.2%
2007	6.2%	9.0%	-2.8%	8.0%
2006	18.0%	11.5%	+6.5%	10.3%
2005	16.7%	12.1%	+4.6%	12.6%
2004	21.3%	19.7%	+1.6%	16.5%
2003	49.7%	38.2%	+11.4%	35.6%
2002	-2.0%	-11.2%	+9.3%	-14.5%
2001	29.6%	7.4%	+22.2%	-0.6%
2000	32.5%	22.0%	+10.5%	17.5%

Data is as of 10/31/15 and is provided for illustrative purposes only.

¹ Results shown are hypothetical and implement BSA's Top Mid-Cap QMV Portfolio Simulation. Information herein should not be construed as an offer to sell, or a solicitation of an offer to buy, an interest in any funds or accounts managed by BSA or as a recommendation for or against any security or financial product.

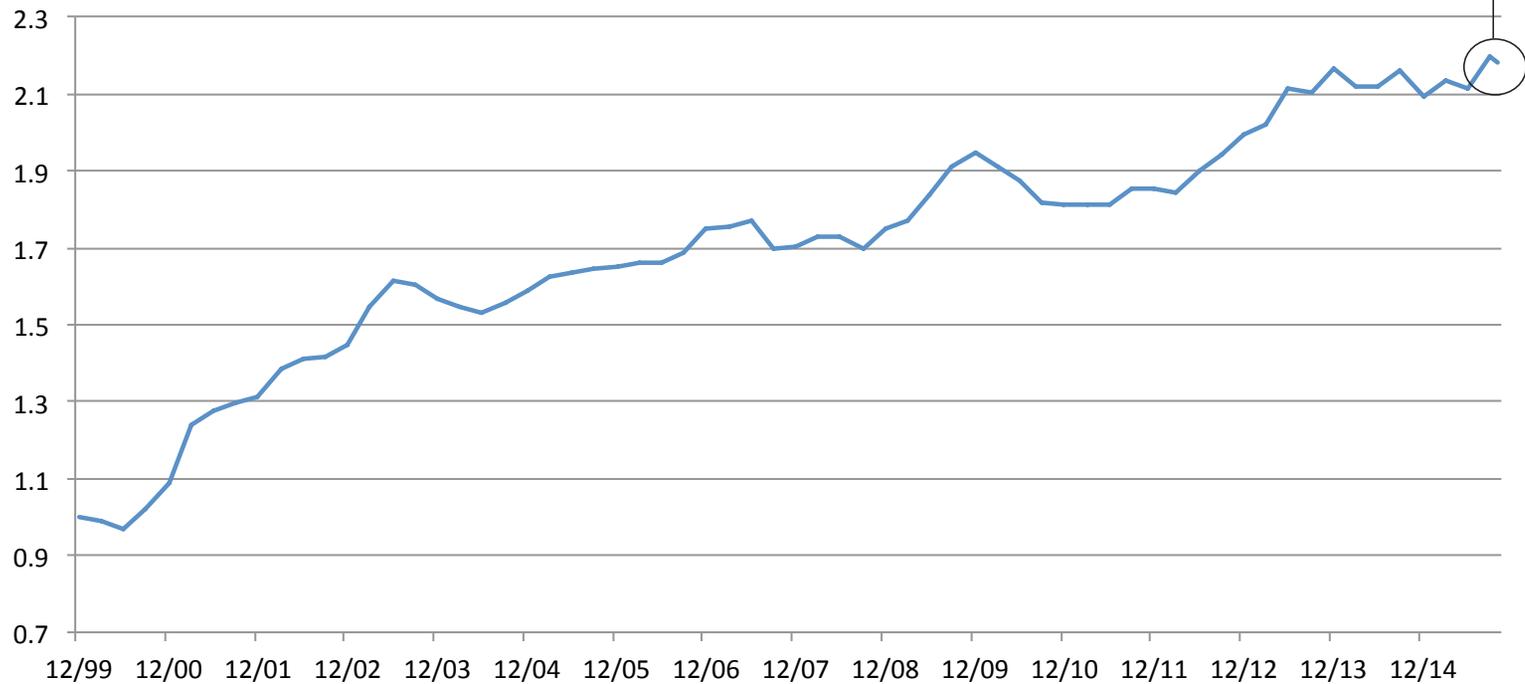
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³ The S&P 400 TR Index, is a stock market index from S&P Dow Jones Indices. The index serves as a barometer for the U.S. mid-cap equities sector and is the most widely followed mid-cap index.

Barrow Street Advisors LLC

Relative Wealth Chart

The Top Mid-Cap QMV Portfolio¹ outperforms the Barrow Mid-Cap Universe² Index 2.2x since 12/31/99



— Relative Wealth: Top Mid-Cap QMV Portfolio/Barrow Mid-Cap Universe

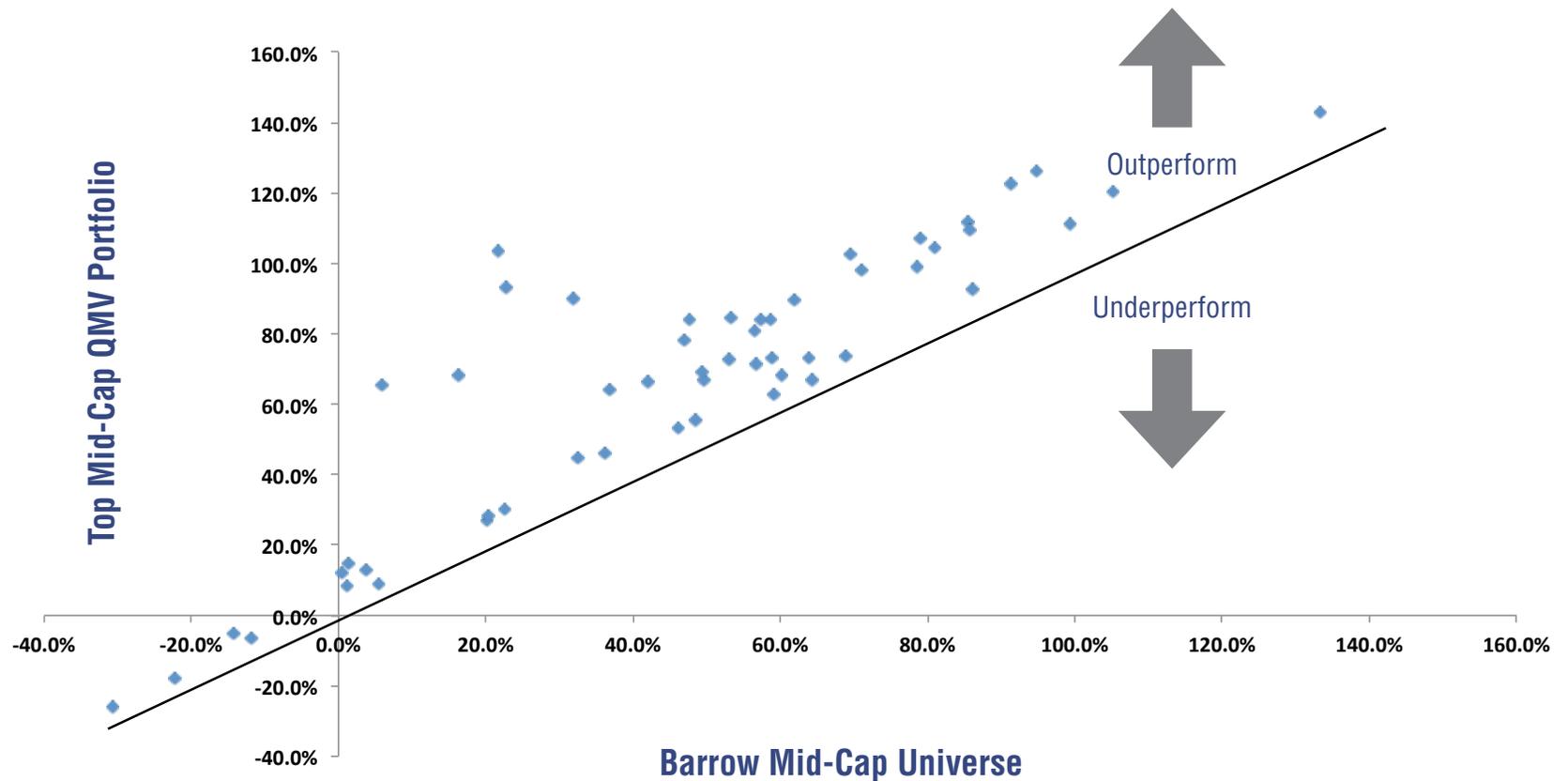
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Rolling 3-Year Returns

Top Mid-Cap QMV Portfolio¹ Returns Outperform the Barrow Mid-Cap Universe² in every Rolling 3-Year Period



Rolling 3-Year Quarterly Returns Since Inception 12/31/99

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**For further details or information please contact
Barrow Street Advisors:**

info@barrowstreetadvisors.com

(203) 391-6100

barrowstreetadvisors.com