High Yield Small and Mid Caps
Opportunities and Risks

Hotchkis & Wiley

Newsletter – September 2016

"Notice the small things. The rewards are inversely proportional"

-Elizabeth "Liz" Vassey, actress

An overlooked opportunity or undue risk?

We have been advocates of investing in small and mid cap credits since launching our high yield strategy more than seven years ago. In our decades following the high yield market, we have learned that this often-overlooked market segment can offer mispriced opportunities for bottom-up credit pickers willing to roll up their sleeves. Admittedly, however, we have been somewhat deficient in articulating exactly why we have such a penchant for this market segment. We look to mend this with our latest newsletter, which will focus on the composition, characteristics, and risks of small and mid cap high yield credits.

In preview, there are three primary reasons for our small/mid cap proclivity; each of these benefits will be explored in greater detail with Benefit #3 receiving disproportionate attention:

Benefit #1: Large opportunity set
Benefit #2: Yield/spread advantage
Benefit #3: Upside potential overshadows manageable risks

Defining small and mid cap

Segmenting equity markets by company size is common practice. So much so, in fact, that even relatively novice investors are familiar with conventional size-based equity indices like the Russell 1000 (large), Russell Midcap (mid), and Russell 2000 (small). Analogous parsing of bond markets, however, is uncommon and fixed income research based on size is remarkably limited. To our knowledge, there is no universally-accepted method for defining large, mid, and small cap bonds. We will need to define the market ourselves as we wade into thinly-chartered waters. Table A summarizes our definitions, which will be used throughout the newsletter unless noted otherwise.

Table A: Size Classifications	Issuer Size
Large Cap	Over $1.2 billion
Mid Cap	$600 million to $1.2 billion
Small Cap	$200 million to $600 million

We are basing our size definition at the company level (i.e. issuer) rather than the bond level (i.e. individual issue). Performance of high yield bonds are typically dictated by positive or negative developments at the company level above all else. Defaults occur at the company level. Based on our definition, therefore, all bonds of the same company will be assigned the same classification. For example, HCA Inc., a hospital system, is one of the largest issuers in the high yield market with more than $22 billion in par value outstanding. The company has more than 20 individual bonds issued, 8 of which are less than $600 million in par value. We are classifying all of HCA's bonds as large cap, even those with just $600 million in total par value, because the company is a large issuer. True small cap bonds, in our view, are bonds of small companies.

The breakpoints we chose ($200MM, $600MM, and $1.2B) are somewhat arbitrary and largely based on our experiences—we have to draw the line in the sand somewhere. We could alter the parameters slightly and our conclusions would remain intact. Importantly, we impose a $200 million minimum issuer size to be included in our small cap universe. It is exceedingly difficult to take meaningful positions in issuers below $200 million without incurring excessive costs and/or liquidity risks.

Market snapshot

Benefit #1: Large opportunity set

The BofA Merrill Lynch US High Yield Index—our proxy for the high yield market—is composed of about 1,000 companies with about 2,200 individual bonds. As shown in Chart 1, about 75% of the market is large cap and 25% is small/mid cap as measured by market value. Also shown in Chart 1, however, about 30% of the market is large cap and about 70% is small/mid cap as measured by the number of issuers. There are 660 small/mid issuers (442 + 218) compared to 279 large issuers. The failure to incorporate the small/mid cap segment of the market severely limits the opportunity set, thereby handicapping active managers' ability to add value through credit research.

Chart 1: High Yield Market Composition
As of 6/30/16

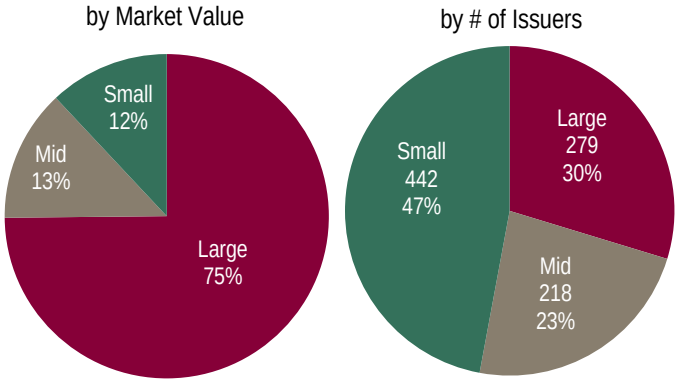
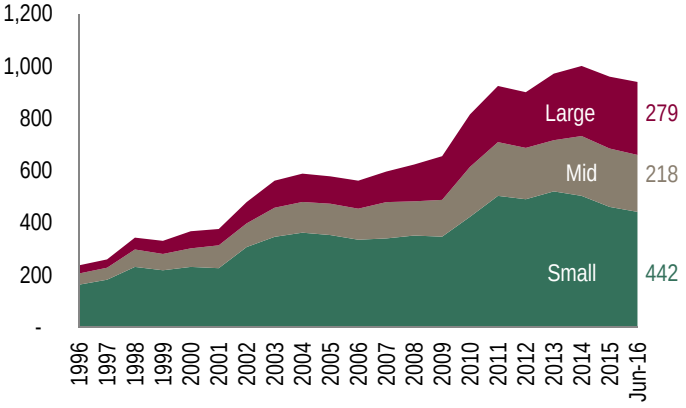


Chart 2: High Yield Market by Number of Issuers Historically



Yields and spreads

Benefit #2: Yield/spread advantage

Charts 3 and 4 highlight the median yields and spreads, respectively, for the high yield market over the last 20 years. On average, yields have been higher and spreads have been wider for small and mid caps compared to large cap. The only period where large caps had a yield/spread advantage over small/mid was in the early 2000s. During this period, several large cable and telecom issuers experienced periods of financial distress, and exhibited excessive yields/spreads accordingly (e.g. Nextel, Adelphia, Qwest). Outside this period small/mid caps have exhibited consistently higher yields and wider spreads.

Chart 3: Yield-to-Worst (%)

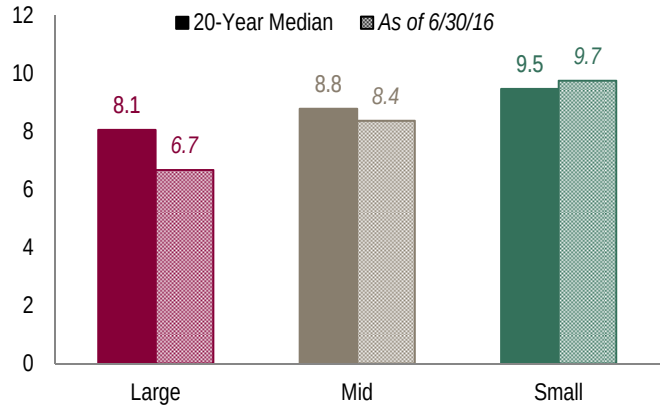
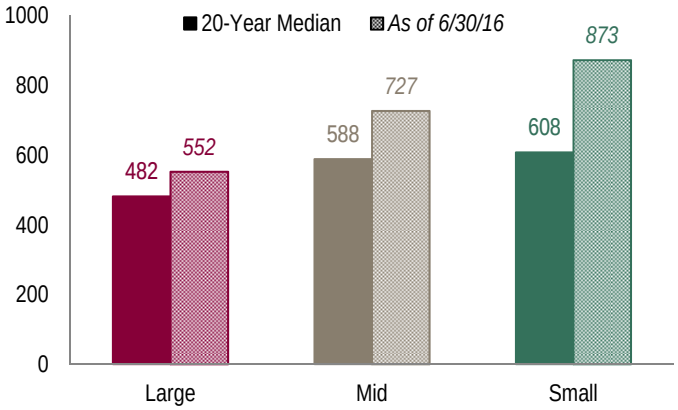


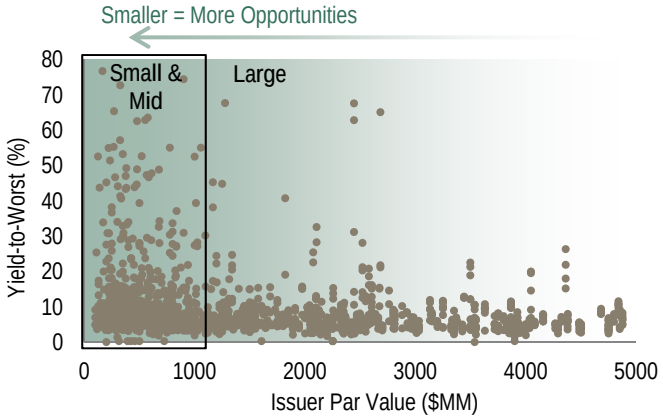
Chart 4: Spread Over Treasuries (basis points)



Past performance is not a guarantee or a reliable indicator of future results.

Chart 5 plots the high yield market with the yield-to-worst on the vertical axis and issuer size on the horizontal axis. The chart demonstrates that high yielding opportunities are much more prevalent in the small and mid cap segment of the market than in the large cap segment.

Chart 5: Yield-to-Worst by Issuer Size
As of 6/30/16



Risk analysis

Benefit #3: Upside potential overshadows manageable risks

Risk 1: default and recovery rates

There are many different types of investment risk. The most threatening, in our opinion, is the risk of permanent capital loss. In the high yield market, this is best measured by default rates, adjusted for post-default recoveries. Let's begin by examining default rates by size, which is summarized in Chart 6. Small caps have demonstrated an average annual default rate of 4.9% over the past 20 years, slightly higher than mid and large caps, which have been nearly indistinguishable at 4.2% and 4.3%, respectively. This includes distressed exchanges, which are debt restructurings that are negotiated outside of bankruptcy and typically result in higher recovery rates than standard defaults. A "partial default" would be a reasonable categorization of most distressed exchanges.

Chart 6: Average Default Rates, Par-Weighted
20 Years ended 6/30/16 (annual rate)

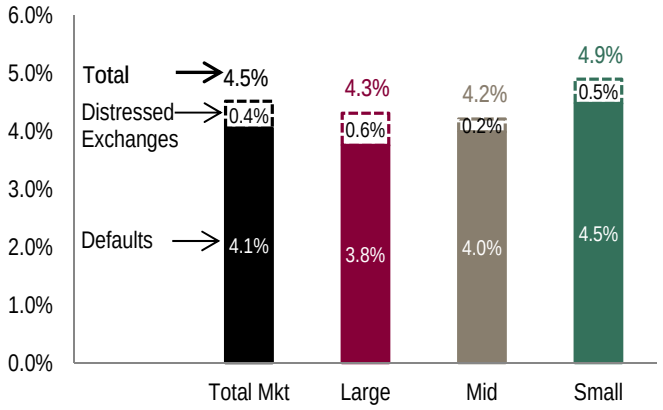
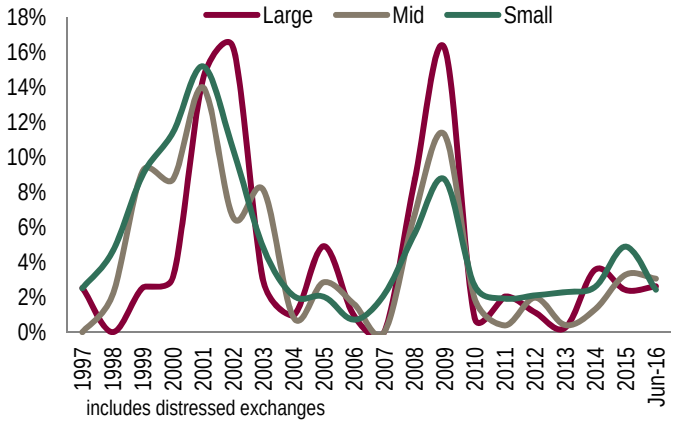


Chart 7 depicts the default rates year by year. For the most part, the default rates move in tandem. Years with notable deviations were most often influenced by a few large defaults.

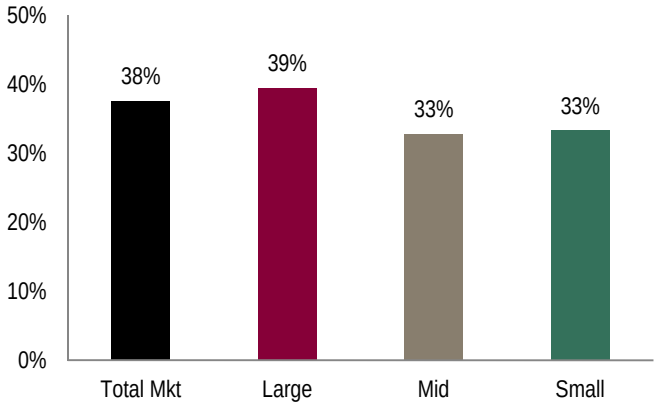
Past performance is not a guarantee or a reliable indicator of future results.

Chart 7: Default Rates, Par-Weighted
Year by Year, Last 20 Years (annual rate)



Next, we will assess recovery rates. When a bond defaults, the creditor (investor) recovers some value between 0% and 100% of par value, the higher the better. Unsurprisingly, bonds more senior in the capital structure and those secured by tangible assets have experienced considerably higher recovery rates than less senior and/or unsecured bonds. Secured and unsecured options are both prevalent in large, mid, and small cap bonds—as are various levels of seniority. The average recovery rate of all defaulted bonds over the past 25 years has been 41.4%[1]. Unfortunately, retroactively parsing recovery data by issuer size this far back is not feasible because the data do not exist, to our knowledge. The best we could do was look at individual recovery rates for all defaulted bonds beginning in 2008, which is highlighted in Chart 8. Over this period, the average recovery rate was 38% for all defaulted bonds, 39% for large caps and 33% for small and mid caps.

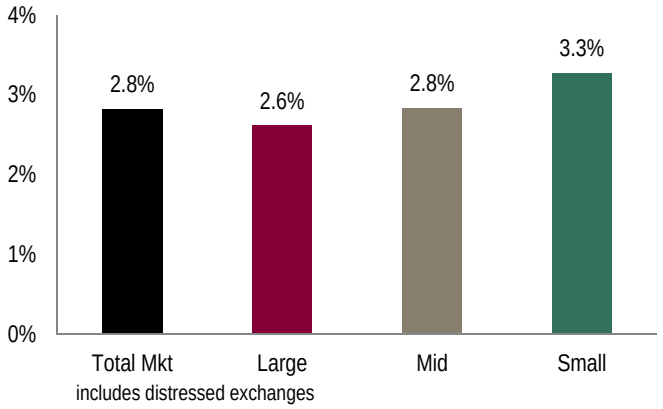
Chart 8: Average Recovery Rates, Par-Weighted
8.5 Years ended 6/30/16



In Chart 9, we combined historical average default and recovery rates to get average loss rates. This is the amount that the investor loses due to defaults, after adjusting for post default recoveries:

*[Default rate * (1 – recovery rate)]*

Chart 9: Average Loss Rates, Par-Weighted
Default Rates of Last 20 years, Recovery Rates of Last 8.5 years ended 6/30/16



Because small caps have marginally higher default rates and lower average recovery rates, they have higher loss rates. The magnitude, however, is a modest 0.5%. The difference in loss rates between mid and large is a meager 0.2%. To justify investing in an asset class with a higher loss rate, we require adequate compensation. In this case, we should require a spread advantage of at least 0.5% to justify investing in small cap bonds given the higher loss rate. Fortunately, as highlighted in Chart 10, the spread advantage for small caps more than compensates for its higher loss rate. The average spread, even after adjusting for higher loss rates, is much higher for small (563 bps) and mid caps (510 bps) than for large caps (397 bps). Chart 11 shows the same statistic year by year.

[1] Source: JPMorgan. All recovery rate information is based on the 30-day post default bond prices.

Past performance is not a guarantee or a reliable indicator of future results.

Chart 10: Average Excess Spreads (Spread Over Treasuries – Loss Rate)
8.5 Years ended 6/30/16

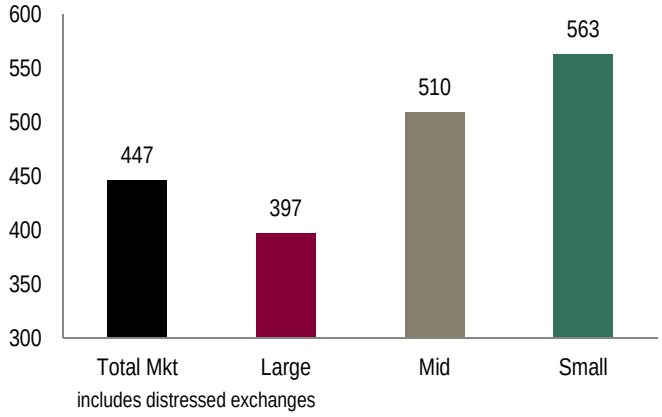
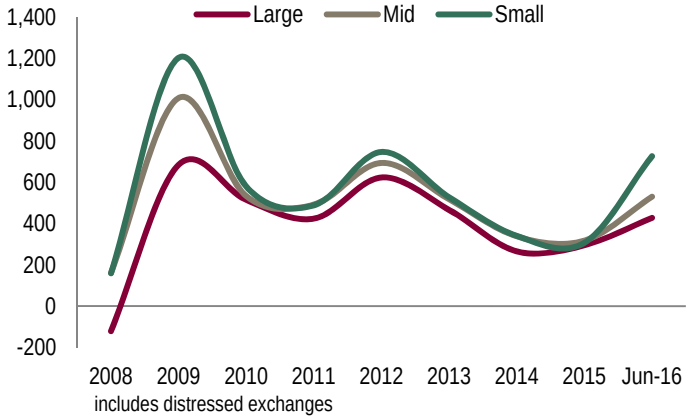


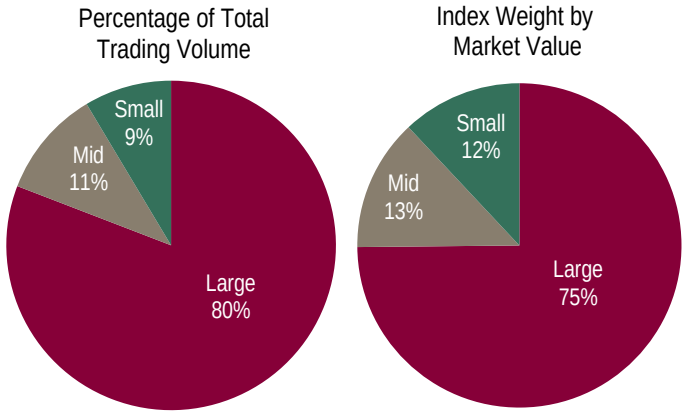
Chart 11: Excess Spreads (Spread Over Treasuries – Loss Rate)
Year by Year, Last 8.5 Years (annual rate)



Risk 2: Liquidity

The correlation between issuer size and trading volume is a decidedly positive 0.43. The larger the issuer, the more liquid it is, and vise-versa. Chart 12 puts this in perspective by showing that large caps comprise 80% of the high yield market's trading volume which is disproportionate to its 75% weight by market value. We suspect this is largely due to ETF flows which have become a popular mechanism for managing short term exposure to the asset class.

Chart 12: Share of Trading Volume by Size
6 Months ended 6/30/16



There are three primary means by which we mitigate/manage liquidity risk, all of which are imperative. First, we trade cautiously and prudently. The details of our trading process are beyond the scope of this paper but know that we have a finely tuned trading process that leverages many liquidity-sourcing techniques we have learned over decades. Second, we classify each investment into 3 liquidity buckets and limit total exposure to the least liquid category—typically less than 10% of the portfolio and very rarely exceeding 20%. Third, and most important, we limit assets under management to responsible levels. Many of our "successful" peers have let assets balloon to the extent that investing in small and mid cap credits in a meaningful way is not possible without assuming excessive liquidity risk. Thoughtful trading, liquidity diversification, and limits on assets managed combine to mitigate liquidity risks substantially. While liquidity risk cannot be eliminated, it can be limited such that its risk is dwarfed by the overlooked opportunity.

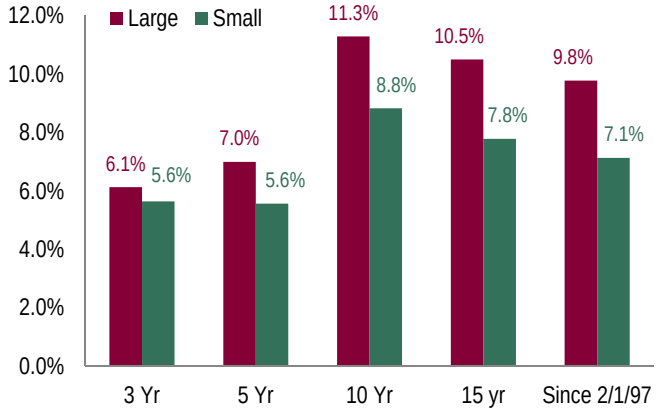
Past performance is not a guarantee or a reliable indicator of future results.

Risk 3: Volatility

There are no third party indexes that are constructed based on our definitions of large, mid, and small cap. This makes analyzing historical performance and volatility inherently difficult. Our best option is to assess the returns of indexes that do exist, even though their construction methodology differs from our definition. BofA Merrill Lynch has indices that deconstruct the high yield market by size: for example, the *US Large Cap (by Par) High Yield Index* and the *US Small Cap (by Par) High Yield Index*. Unlike our size definitions, however, which are based on issuer/company size, these indexes are based on individual bond sizes. To construct these indices, all the bonds in the BofA Merrill Lynch US Cash Pay High Yield Index are ranked by par value; the larger half comprise the large cap index and the smaller half comprise the small cap index. Both indexes, therefore, will have the same number of bonds but the large cap index will dwarf the small cap index in terms of total par or total market value. Again, this differs from our own definition and is not perfectly consistent with the rest of the analysis in this paper but as the best of several imperfect options, it will have to suffice.

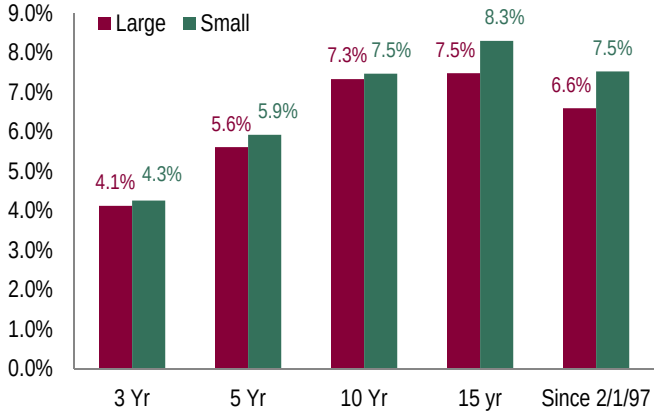
Chart 13 depicts the historical volatility, as measured by the annualized standard deviation of monthly returns, for the large and small cap indices. Interestingly, the large cap index has exhibited *higher* volatility than the small cap index. Our theory is that large caps act as the underwriters for fund flows into and out of the asset class. Short term investors typically increase/reduce their high yield exposure by buying/selling the most liquid positions first, i.e. large caps. This has been exacerbated by the growing popularity of high yield ETFs, the most popular of which have explicit mandates of tracking a high yield index comprised only of the market's most liquid bonds[2]. Hence, large caps operate as the high yield market's liquidity valves. This leaves the small and mid cap markets more insulated from short term flows, i.e. fast money.

Chart 13: Annualized Standard Deviation of Monthly Returns
Period ended 6/30/16



The performance of the same indices can be observed from Charts 14 and 15. Small caps have outperformed over time.

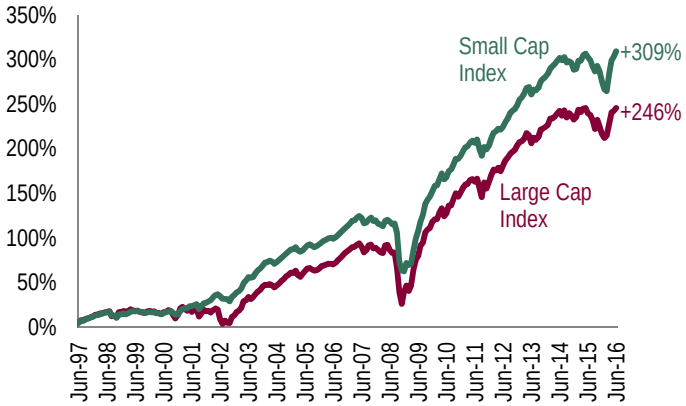
Chart 14: Annualized Performance
Period ended 6/30/16



[2] The iShares HY ETF (ticker: HYG) is designed to track the Markit iBoxx USD Liquid HY Index. The SPDR HY ETF (ticker: JNK) is designed to track the Barclays High Yield Very Liquid Bond Index.

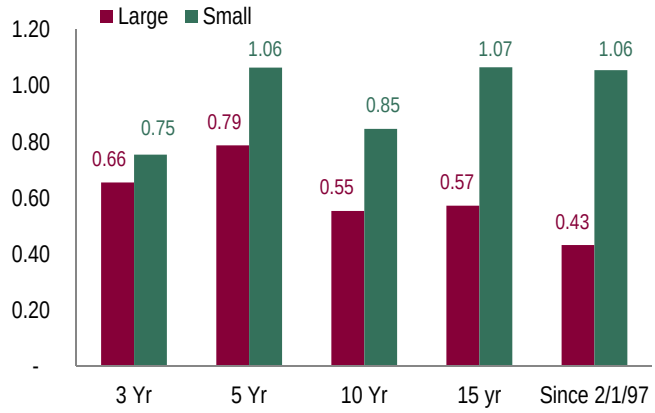
Past performance is not a guarantee or a reliable indicator of future results.

Chart 15: Cumulative Performance
2/1/97 – 6/30/16



Because the small cap index has exhibited higher returns with lower volatility than the large cap index, its Sharpe Ratios are also higher, as depicted in Chart 16.

Chart 16: Sharpe Ratios
Period ended 6/30/16



Summary

The often-overlooked mid and small cap segments of the high yield market expand active credit pickers' opportunity set dramatically, possess notable yield/spread advantages, and have manageable risks. We cannot make the case that as a group, the small and mid cap segments of the high yield market are less risky than large caps. When managed prudently, however, we believe that the risks are comparable which makes valuable the yield advantage of small and mid caps. We also believe that individual small or mid cap credits can be less risky than individual large caps. Our bottom-up research process is predicated on taking advantage of higher yields while avoiding the pitfalls of higher defaults—a strategy well suited for small and mid cap high yield investing.

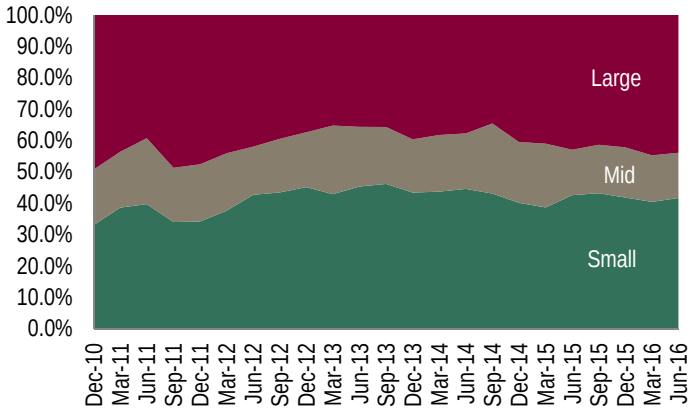
Hotchkis & Wiley High Yield Research

Note: Please see Addendum where we highlight the representative portfolio's historical exposure to small and mid caps, the portfolio's yield and spread advantage, and the portfolio's default rate deconstructed by size.

Past performance is not a guarantee or a reliable indicator of future results.

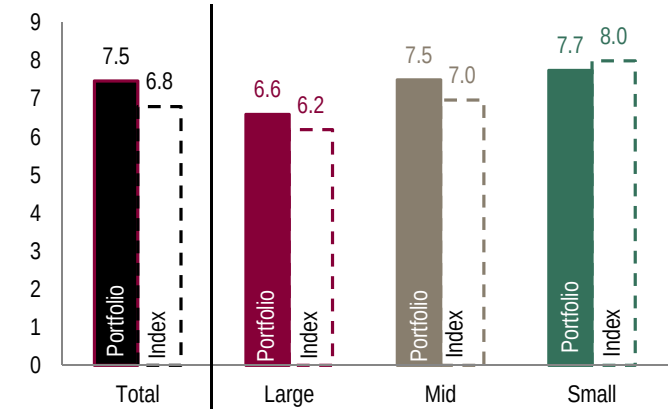
Addendum:
An Assessment of Hotchkis & Wiley's Portfolio

Chart A1: Historical Allocation by Size
12/31/10 – 6/30/16



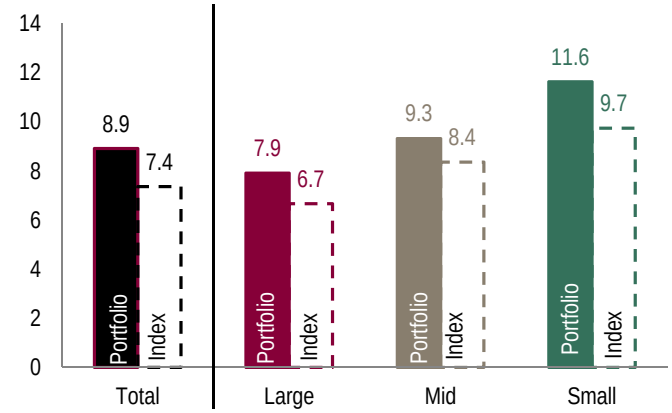
Historically, the portfolio's average small and mid cap exposure has ranged from about 50% to about 65%. The index's average small and mid cap exposure has ranged from about 25% to about 35% over the same period.

Chart A2: Median Yield-to-Worst
5.5 Years ended 6/30/16



The median yield-to-worst for the portfolio has been reasonably similar to that of the index in each market cap category. The portfolio's median YTW has generally exceeded that of the index due to its larger weight in small and mid cap.

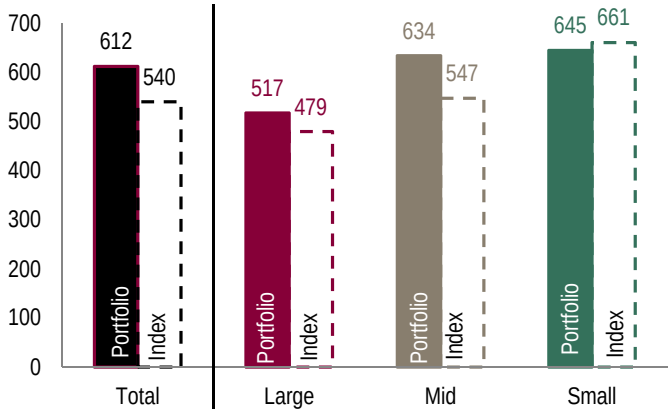
Chart A3: Yield-to-Worst
As of 6/30/16



In the current market, the portfolio's yield advantage relative to the market is consistent across market caps and is particularly pronounced in small caps.

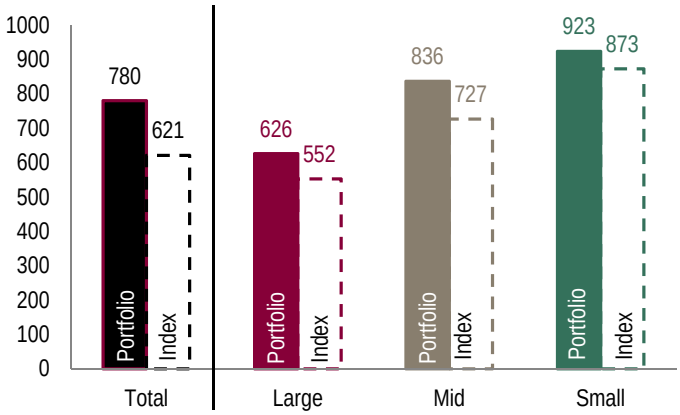
Past performance is not a guarantee or a reliable indicator of future results.

Chart A4: Median Spread Over Treasuries
5.5 Years ended 6/30/16



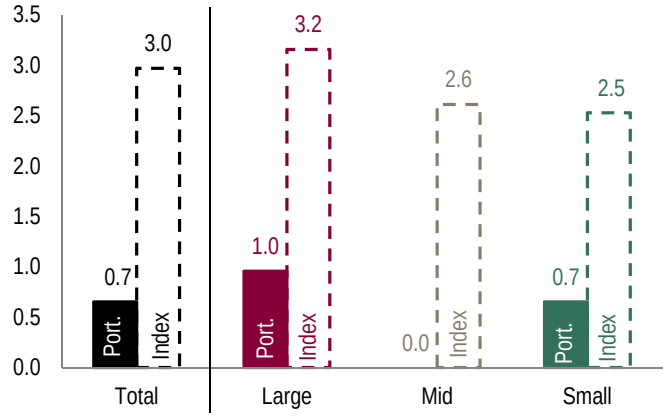
The median spread over treasuries for the portfolio has been reasonably similar to that of the index in each market cap category. The portfolio's median spread over treasuries has generally exceeded that of the index due to its larger weight small and mid cap.

Chart A5: Spread Over Treasuries
As of 6/30/16



In the current market, the portfolio's spread advantage relative to the market is consistent across market caps.

Chart A6: Average Annual Default Rate
Since Inception (3/31/09-6/30/16)



The portfolio's average annual default rate since its inception has been notably lower than that of the index in each of the market cap buckets.

Characteristics based on representative portfolio of the High Yield strategy. Characteristics and holdings may vary due to different restrictions, cash flows, and other relevant considerations. Information is for illustration purposes only and is not an investment recommendation.

Past performance is not a guarantee or a reliable indicator of future results.

All investments contain risk and may lose value. Investing in high yield securities is subject to certain risks, including market, credit, liquidity, issuer, interest-rate, inflation, and derivatives risks. Lower-rated and non-rated securities involve greater risk than higher-rated securities. High yield bonds and other asset classes have different risk-return profiles, which should be considered when investing. Investing in small and medium-sized companies involves greater risks than those associated with investing in large company stocks, such as business risk, significant stock price fluctuations and illiquidity.

All data for charts use the BofA Merrill Lynch US High Yield index (formerly Master II) unless otherwise noted:
Charts 1-5: BofAML, Bloomberg; Charts 6-11: JPMorgan, BofAML, Bloomberg; Chart 12: BofAML, FINRA TRACE, Bloomberg; Charts 13-15: BofAML, Bloomberg / Indexes used: BofAML US Small Cap by Par Cash Pay HY Index, BofAML US Large Cap by Par Cash Pay HY Index; and Chart 16: BofAML, Bloomberg, Barclays / Indexes used: BofAML US Small Cap by Par Cash Pay HY Index, BofAML US Large Cap by Par Cash Pay HY Index, 3 Month T-bill (risk free rate).
Chart A1: Bloomberg; Charts A2-A5: Bloomberg, BofAML; and Chart A6: Bloomberg, BofAML, JPMorgan.

Past performance is not a guarantee or a reliable indicator of future results.