Oberweis
Asset Management

SMALL-CAP VALUE STRATEGY

4Q 2018

The Quarter & Year in Review

2018 was a difficult year for investors. Stocks, bonds, gold and oil all declined as investors grew increasingly fearful of the impact of tariffs and a prolonged US-China trade war, resulting slowing growth, rising interest rates, and tighter monetary policy. Small-cap stocks were particularly adversely affected. The Russell 2000 Value Index returned -12.86% for the year, compared to a -15.23% (-16.15% net of fees) return for the Oberweis Small-Cap Value strategy. Nearly all of the asset class drawdown happened in the fourth quarter, when the strategy returned -19.41% (-19.73% net of fees) versus -18.67% for the benchmark. While value showed some performance strength relative to growth in the fourth quarter, small-cap value stocks remained out-of-favor overall in 2018, as evidenced by the Russell 2000 Value Index trailing the Russell 2000 Growth Index by 355 basis points for the year[1]. As fear took hold in the market, particularly in the fourth quarter, valuations dropped to levels not often seen over the past decade. For example, our portfolio's price/sales ratio has fallen to 0.75 as of 12/31/2018 compared to 1.16 as of 12/31/2017. With these types of low valuations, we believe many of the potentially adverse scenarios are already at least partially discounted in stock prices. In our view, the recent downturn has likely been overdone. While no one can predict the market in the short term, on average we believe investors tend to realize above-average long-term returns when buying during periods of depressed valuations.

While 2018 was a generally tense environment, sentiment turned squarely negative in the fourth quarter due to the combination of heightened trade tensions, building corporate credit concerns, and poor company outlooks. Small-cap value equities took an outsized beating relative to large caps but did fare better than growth, which is typical of the asset class in an environment where risk aversion explodes because small-cap stocks tend to be viewed as a riskier asset class. In fact, while this is the first negative return year for large-caps since 2009, it is the 3rd negative return year for small-caps[2]. Of the three worst performing Russell 2000 Value sectors (Energy, Materials, and Consumer Staples[3]), our strategy managed to achieve positive contributions in Energy and Consumer Staples where we managed to grab some rare positive returns in the latter. Energy's contribution was primarily due to allocation as we had greatly reduced our exposure to oil, but Staples was focused on stock selection, where market underreaction to a combination of share buybacks and strong management guidance allowed us to take advantage of some attractive valuations.

Unfortunately, some of our Producer Durables and Consumer Discretionary investments did not perform well in the fourth quarter, although we believe these positions hold significant value. Whether one considers risk from a debt level, value factor, or tariff cost our holdings in these sectors are exposed to each. While positions like Hawaiian Airlines (HA) and Dana (DAN) were negative performers, they continue to exhibit top and bottom line growth while taking advantage of their currently depressed valuations through both repurchase programs and insider buying. These and other selections caused us to lag our benchmark. Yet, our portfolio holdings grew revenues and earnings year-over-year by 8.7% and 19.0%, respectively. This is directly in line with a recent report by Jefferies noting that the small-cap value asset class appears attractive given low valuations and strength in earnings growth relative to large-caps[4].

Certainly analyst estimates for continued earnings growth in the Russell Small Value Index seems high relative to historical averages[5]. However rather than indicating that earnings will subsequently turn negative, we believe market disappointment in somewhat hubristic forecasts may have contributed to overly harsh reactions as some companies lowered their guidance even if such guidance continued to indicate growth. Furthermore, broad valuation levels for the Russell 2000 Value Index, over multiple metrics, have been pushed below 10, 20, and 30 year historical averages. For example, the price/sales ratio of the Russell 2000 Value Index is price to sales 0.79 compared to a 10-year average of 0.86. Similarly, the current P/E of that same index is presently 15.8 vs a 10-year average of 18.1. According to Bloomberg data, our strategy reflects more attractive valuations while also demonstrating stronger free cash flow yield than almost every corresponding benchmark sector[6]. We believe this leaves us well-positioned to benefit when the market corrects despite the near-term pain.

Currently, a large factor of that pain has been associated with overall corporate debt levels in a rising rate environment. It is an opportunity to highlight how our portfolio construction process blends the presence of behavioral underreaction and company fundamentals. We do not blindly buy companies simply because of the presence of information signals. With respect to the current focus on leverage, we have sought to mitigate negative associated impact by positioning our holdings to reflect a stronger balance sheet profile. For example, our strategy carries a marginally lower debt level while emphasizing stronger cash flow support[7]. In addition, we have focused on companies with favorable rates and fixed maturities.

[1]During the quarter, the Russell 2000 Growth Index returned -21.65% versus -18.67% for the Russell 2000 Value Index, a differential of 298 basis points. For the year, the Russell 2000 Growth Index returned -9.31% versus -12.86% for the Russell 2000 Value Index, a differential of 355 basis points
[2]The small-cap Russell 2000 Index had negative returns for calendar years 2011, 2015, and 2018
[3]Absolute Russell 2000 Value Index sector returns: Energy -34.8% , Materials -27.4% , Consumer Staples -23.3%
[4]Source: Jefferies US Equity Strategy, November 2018
[5]Bloomberg data shows median analyst earnings growth expectations are 11.6% vs. a 5 yr actual growth rate of 8.5%
[6]The Oberweis Small Cap Value Fund had trailing and forward P/E ratios of 13.9 and 12.4 while FCF yield was 3.60%. The Russell 2000 Value Index had trailing and forward P/E ratios of 15.39 and 13.95 while FCF yield was 0.65%.
[7]The Oberweis Small Cap Value Fund had a D/E ratios of 1.02 vs 1.11 for the benchmark index, a D/EBITDA ratio of 4.15 vs 1.97, and a CFO/Debt ratio of 0.52 vs -0.41.

The Quarter & Year in Review (continued)

Given how the market has reacted amidst such a strongly negative sentiment environment, the current price dislocations may accomplish two things. First, our holdings which have been the most negatively impacted should benefit strongly when the market realizes that many depressed valuations do not reflect reality. Second, we are finding a greater number of new opportunities among stocks which have been dragged down indiscriminately in the malaise. Corporate executives would appear to support our thesis as they are buying their own stock at levels not seen since the market drawdowns of 2011 and 2016[8]. Since our strategy is focused on behavioral finance variables such as this, there is sometimes a timing lag between value realization from underreaction to these variables and the associated fluctuations in investor risk appetite. We cannot predict investor risk appetite, but over full market cycles we believe, and our research shows, this approach is likely to generate alpha.

Accordingly, we remain true to a portfolio construction consisting of behavioral mispricing signals balanced with high certainty in long-term viability as indicated by profitability, earnings quality, low volatility, and lower leverage. Specifically we remain overweight in some of the hardest hit areas like materials, producer durables, and technology where, even amidst a dampened growth picture, valuations are quite attractive relative to both peers and industries. Domestically, lower leverage companies remain well-positioned to benefit on fundamental and factor levels. When markets narrow the perceived mispricing gaps our companies exhibit, our holdings should outperform.

Our team recognizes which information signals point to opportunities created by noise-induced mispricing. Behaviorally, investors and therefore the market are prone to over/underreact to news items, especially those which are written to evoke an emotional response. We believe these noise associated over/underreactions continue to create favorable long-term opportunities which, accordingly, may require patience to prevail. However, as disciplined value investors, our job is to look through the macro noise and remain laser-focused on out-of-favor small-cap equities with positive management signaling.

[8]Source: The Washington Service

PORTFOLIO CHARACTERISTICS
(AS OF DECEMBER 31, 2018)

Number of Stocks	82
Weighted Market Capitalization (in millions)	$2,346
Median Market Capitalization (in millions)	$2,045
P/E Forward 4 Quarters (estimated)	12.4x
Long-Term Future EPS Growth Rate (estimated)	6.0%
Long-Term Debt to Total Equity	19.8%
Return on Equity	8.4%
Cash Position	1.4%

Source: Thomson Reuters Eikon

Portfolio Highlights

As of December 31, 2018, the portfolio was 98.6% invested in 82 different positions. The portfolio had its largest weights in Financial Services (36.81% versus 40.56% for the benchmark), Producer Durables (15.38% versus 11.24%), and Consumer Discretionary (12.56% versus 12.15%). The portfolio beat the benchmark in 4 of 9 sectors. During the quarter, the portfolio was positively impacted by stock selection in three main sectors Health Care (our holdings in this sector returned -13.23% versus -29.53% for those in the benchmark), Consumer Staples (-1.77% versus -17.49%), and Utilities (1.25% versus -4.93%). Return was adversely impacted by stock selection in Producer Durables (-26.01% versus -18.75%) and Consumer Discretionary (-24.43% versus -17.89%).

Key Benefits

The Small-Cap Value strategy seeks to achieve it's objective by making intermediate and long-term investments in domestic, publicly-traded equity securities of small capitalization companies. The strategy primarily invests in companies based in the United States with market capitalization of up to $3 billion.

The key benefits of the Small-Cap Value strategy are:

- Potential for significant alpha over a full market cycle
- Disciplined and repeatable investment process managed by a passionate and experienced investment team
- Research process specifically designed to efficiently discover smaller cap companies that are undervalued by traditional Wall Street research analysts and market participants
- Exposure to undervalued smaller cap companies offering the potential for upside as a result of the markets misinterpreation or misunderstanding of positive information signals like sock repurchase activity, dividend increases and merger activity
- Diversified portfolio with a focus on risk management

Minimum Account Size: $5 million for Institutional Account Management

For more information please contact:
Brian K. Lee
Oberweis Asset Management, Inc.
3333 Warrenville Rd., Suite 500, Lisle, IL 60532
(800) 323-6166 | (630) 577-2321 | brian.lee@oberweis.net

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SMALL-CAP VALUE

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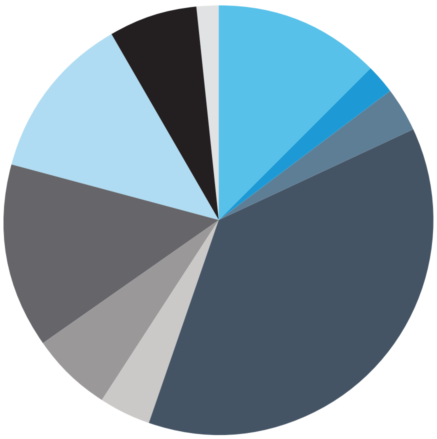
TOP TEN HOLDINGS *(as of December 31, 2018)*

	Company		Line of Business
1	Williams-Sonoma, Inc.	3.2%	Retailer of high-end home goods under Williams-Sonoma, West Elm, Pottery Barn and other retail chains
2	Hersha Hospitality Trust	2.8%	Northeastern US REIT operator of upscale and mid-scale hotels
3	Old National Bancorp	2.7%	Multi-bank holding company operating in Indiana, Illinois, Ohio, Kentucky, and Tennessee
4	Portland General Electric Co.	2.6%	Public utility company based in Portland, Oregon
5	Associated Banc-Corp.	2.5%	Midwest banking franchise headquartered in Green Bay, Wisconsin
6	Simmons First National Corp.	2.3%	Regional bank holding company offering residential and commercial services that operates in Arkansas, Texas, and Oklahoma
7	Verint Sys Inc.	2.2%	Analytic solutions for communications, interception, digital video security and surveillance, and enterprise business intelligence
8	Central Pacific Financial Corp.	2.2%	Banking services and products operating in Hawaii
9	Mastec, Inc.	2.1%	Specialty contractor providing for the building, installation, maintenance, and upgrade of utility and communications infrastructure
10	Vishay Intertechnology	2.0%	Manufactures passive and discreet active electronic components utilized in mobile phones, automobiles, medical equipment, satellites, and military and aerospace equipment

Top 10 holdings as a percentage of Total Net Assets. Portfolio Holdings are subject to change at any time. References to specific securities should not be construed as a recommendation to buy or sell and should not be assumed profitable. Source: Thomson Reuters Eikon

SECTOR WEIGHTINGS *(as of December 31, 2018)*

Consumer Discretionary	12.6%
Consumer Staples	2.3%
Energy	3.3%
Financial Services	37.1%
Health Care	3.9%
Materials & Processing	6.2%
Producer Durables	14.0%
Technology	12.3%
Utilities	6.9%
Cash	1.4%
Total	100.0%



Sector weightings as a percentage of Total Net Assets. Source: Thomson Reuters Eikon

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AVERAGE ANNUAL TOTAL RETURNS *(as of December 31, 2018)*	QTD	1 Yr	3 Yr	5 Yr	10 Yr	Since Inception (7/31/2007)
Small-Cap Value (gross of fees)	**-19.41%**	**-15.23%**	**6.56%**	**2.92%**	**11.65%**	**7.82%**
Small-Cap Value (net of fees)	**-19.73%**	**-16.15%**	**5.36%**	**1.70%**	**10.37%**	**6.62%**
Russell 2000 Value Index	-18.67%	-12.86%	7.37%	3.61%	10.40%	5.37%

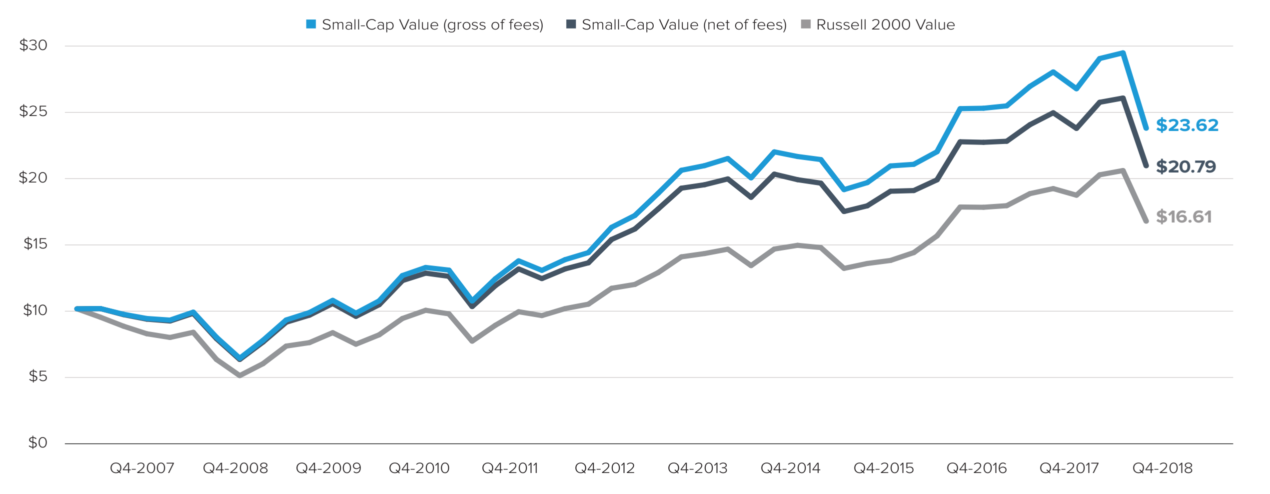
Oberweis Asset Management, Inc. ("OAM") is an independent investment management firm that is not affiliated with any parent organization. The composite returns are comprised of fully discretionary accounts with a minimum value of $5 million. Performance returns prior to October 2, 2017 were derived from another registered investment advisor. Accounts are dollar-weighted within the composite and reported in U.S. dollars.

The Russell 2000 Value Index is an unmanaged market capitalization-weighted index of value-oriented stock of U.S. domiciled companies that are included in the Russell 2000 Index. Value-oriented stocks tend to have lower price-to-book ratios and lower forecasted growth values.

Advisory fees are disclosed in Part II of Form ADV. Performance is historical and includes the reinvestment of dividends and other income. Past performance is not necessarily indicative of future results.

Before investing, consider the fund's investment objectives, risks, charges, and expenses. To obtain a copy of the prospectus or summary prospectus containing this and other information, please visit our website at oberweisfunds.com or call 800-323-6166. Read it carefully before investing. The Oberweis Funds invest in rapidly growing smaller and medium sized companies which may offer greater return potential. However, these investments often involve greater risks and volatility. There is no guarantee that the portfolios can achieve their objectives. The Oberweis Funds are distributed by Oberweis Securities, Inc. Member: FINRA & SIPC.

GROWTH OF $10 MILLION — WITH INCOME INVESTED *(July 31, 2007 – December 31, 2018)*



Oberweis Asset Management, Inc.

Recognized as a leading small-cap stock specialist, Oberweis has been helping institutional investors manage their assets prudently and effectively for many years.

MEET THE TEAM