

## CONCENTRATED SMALL-CAP GROWTH STRATEGY

4Q 2016

### The Quarter in Review

The Oberweis Concentrated Small-Cap Growth Composite returned 6.93% (6.32% net of fees) during 2016 versus 11.32% for the benchmark Russell 2000 Growth Index. During the fourth quarter, the composite returned 1.17% (1.02% net of fees) versus 3.57% for the Russell 2000 Growth Index, a shortfall of 240 basis points (255 basis points net of fees).

We will remember 2016 simply as a strange year, and we're not even talking about the Chicago Cubs winning the World Series. From the surprising Brexit vote in June to Donald Trump's unlikely victory in November, 2016 was a year when the unexpected actually happened. Even more surprising was the reaction in the equity markets to each of these profound events – in both cases the expectation for extreme market volatility following the event proved surprisingly short-lived. In fact, the U.S. stock market's action following the election has been nothing short of amazing given the potential uncertainty surrounding Donald Trump's policies, his questionable willingness and ability to work with others, and his lack of political experience.

At the macro level, 2016 will go down as a relatively benign year in the markets where predicted volatility never really materialized, except for a brief rout early in the year which was entirely recouped by March. The U.S. dollar continued to appreciate against foreign currencies, albeit at a lesser rate than in 2015. Commodities like oil, copper, and steel bottomed early in the year, stopping a multi-year slide, and leading to a rally in commodity-oriented and economically-sensitive stocks. Interest rates, as measured by the 10-year U.S. Treasury bond, bottomed at 1.3% in early July following a Brexit-inspired flight to quality. Yields spiked to over 2.6% in December as investors discounted the possibility of additional deficit spending and inflation under a Trump administration. The Federal Reserve raised interest rates by 25 basis points in December and hinted that additional hikes are likely in 2017.

Our performance in 2016 was hampered by multiple style headwinds that proved difficult to fully overcome via stock selection. Growth stocks trailed value stocks by an extraordinary 2,042 basis points in 2016 and by 1,050 basis points during the fourth quarter alone, a substantial obstacle for a portfolio with growth characteristics that consistently exceed the growth benchmark itself. Not surprisingly in a value-dominated year, the top two quintiles of sales growth within the benchmark – our typical fishing pond – performed the worst.

Importantly, the performance of certain value-oriented sectors also impacted performance. During 2016, the majority of the performance shortfall was attributed to the allocation effect, which in the short-term can be magnified by concentrated holdings and higher tracking error. The best performing sectors in 2016 were materials and processing, producer durables, and financials, which accounted for an average weight of only 6.6% of the portfolio during the year versus 32.8% in the Russell 2000 Growth. The worst performing sector during the year was healthcare, where we had a 33.7% weighting versus a 23.3% weighting in the benchmark. Healthcare was the only sector that posted a negative return during 2016.

In the fourth quarter, the performance shortfall was attributed almost entirely to the allocation effect. The best performing sectors were financials, producer durables, and materials and processing, which accounted for an average weight of only 7.6% of the portfolio versus 35.0% in the Russell 2000 Growth. Again, the worst performing sector during the quarter was healthcare, where we had a 31.4% weighting versus a 21.1% weighting in the benchmark.

The biggest headwind in 2016 was the poor relative returns of companies with the strongest positive earnings revisions. Our portfolio is comprised of companies that have strong fundamentals driving earnings in excess of expectations and upward estimate revisions. The market typically rewards such characteristics with rising prices. Research by Empirical Research Partners, however, suggests that the best quintile of earnings revision companies (the most positive revisions) underperformed the worst quintile (the most negative revisions) by over 700 basis points in 2016, continuing a trend that began in the middle of 2015. The long-term data from ERP suggest the opposite is the norm, and that higher estimate revisions are usually positive for portfolio performance. We view this as a short-term aberration and are confident that better-than-expected earnings and positive revisions will again become tailwinds to our portfolio.

Looking forward, the magnitude of the rally in the fourth quarter leads us to believe that investors are materially discounting a number of Trump administration policies, namely tax reform via corporate and individual rate cuts, simplification, and cash repatriation; fiscal stimulus; and reduced regulations, including the repeal and replacement of the Affordable Care Act. While we believe such policies could positively impact economic growth, the reality of what President-elect Trump is actually able to accomplish in 2017 – even with a Republican Congress – is likely to fall short of lofty expectations. We are also concerned that President-elect Trump's protectionist rhetoric regarding global trade, if it becomes the foundation for U.S. policy, could impact certain industries and companies in ways not currently appreciated by the market. Furthermore, the impact of Trump's policies on economic growth and corporate profitability is unlikely to materialize until late 2017 or early 2018 at the earliest. Such disappointments relative to current assumptions could lead to increased levels of market volatility in the first half of this year.

Instead of placing bets on shifting political winds, our bottom-up strategy has always been focused on buying individual businesses, seeking out innovative companies with idiosyncratic attributes that afford the potential to drive earnings growth at rates higher than market expectations. While the earnings multiples afforded in the market for such firms tend to oscillate from quarter to quarter, we believe that prudent stock selection of a diversified portfolio or companies with prospects for better-than-expected earnings growth is likely to outperform the broader market over time.

*<sup>1</sup>In 2016, the Russell 2000 Growth returned 11.32% and the Russell 2000 Value returned 31.74%. In the fourth quarter, the Russell 2000 Growth returned 3.57% and the Russell 2000 Value returned 14.07%.*

## Portfolio Highlights

As of December 31, 2016, the portfolio was 87.7% invested in 30 different positions. The portfolio had its largest weightings in technology (32.8% average weighting during the quarter versus 19.3% for the Russell 2000 Growth Index), health care (31.4% versus 21.2%), and consumer discretionary (11.2% versus 16.0%). The portfolio was most underweight producer durables (1.8% versus 14.1%), materials (0.0% versus 9.2%), and financials services (5.8% versus 11.7%).

In the fourth quarter performance was positively impacted by stock selection in health care (where our holdings returned -4.23% versus a -8.64% return for the benchmark's health care holdings) but was negatively impacted by its overweight sector allocation to technology which was the worst performing sector in the benchmark which returned -3.17% versus 1.70%.

### PORTFOLIO CHARACTERISTICS

*(AS OF DECEMBER 31, 2016)*

Number of Stocks	35
Weighted Market Capitalization (in millions)	\$2,360
Median Market Capitalization (in millions)	\$1,839
P/E Forward 4 Quarters (estimated)	27.7x
Long-Term Future EPS Growth Rate (estimated)	20%
Long-Term Debt to Total Equity	27%
Return on Equity	13%
Cash Position	4.2%
Portfolio Turnover (2016)	67.6%

Source: Thomson Reuters Eikon

## Key Benefits

The Concentrated Small-Cap Growth captures and highlights our domestic investment team's stock selection skill over a full market cycle by investing in the 25-35 highest conviction ideas from our domestic smaller-cap growth strategies. This strategy helps investors capitalize on the exceptional growth potential of fast-growing emerging companies in the rapid expansion phase of their lifecycle. The Concentrated Small-Cap Growth strategy generally invests in companies with market capitalizations under \$5 billion at the time of purchase.

The key benefits of the Concentrated Small-Cap Growth strategy are:

- Exposure to our team's 25-35 highest conviction ideas
- Potential for significant alpha over a full market cycle
- Emphasizes rapidly growing smaller-cap companies in the most dynamic phase of their development
- Disciplined and repeatable investment process managed by a passionate and experienced investment team
- Fully invested portfolio - no market timing

**Minimum Account Size: \$5 million for Institutional Account Management**

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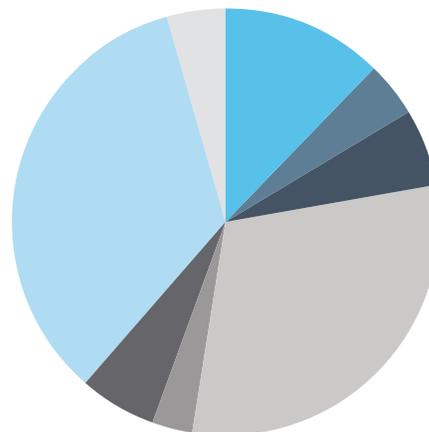
**TOP TEN HOLDINGS (as of December 31, 2016)**

Company		Line of Business
1	Inphi Corp.	5.5% Provides high-speed analog semiconductor solutions for the communications and computing markets
2	LogMeIn, Inc.	5.2% Provides a portfolio of cloud-based service offerings, which helps people and businesses to connect to their workplace, colleagues and customers
3	Gigamon, Inc.	4.6% Designs and markets networking products
4	Eagle Bancorp, Inc.	4.1% Bank holding company that offer commercial banking services to businesses and professional clients and consumer banking to individuals
5	Diamondback Energy, Inc.	4.1% Independent oil and natural gas company focused on acquisition, development, exploration and exploitation of onshore oil and gas reserves in the Permian Basin in West Texas
6	Inogen, Inc.	4.1% Develops, manufactures and markets portable oxygen concentrators for patients suffering from chronic respiratory conditions
7	Ligand Pharmaceuticals	3.9% Biotechnology company that develops and acquires royalty generating assets
8	Ceva, Inc.	3.6% Licensor of DSP cores and integrated applications to the semiconductor industry
9	Callidus Software, Inc.	3.6% Leader in cloud-based sales, marketing, learning, and customer experience solutions
10	Itron, Inc.	3.3% Provides standard and smart metering systems

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, 2016)**

Consumer Discretionary	12.3%
Consumer Staples	0.0%
Energy	4.1%
Financial Services	5.9%
Health Care	30.3%
Materials & Processing	3.0%
Producer Durables	5.8%
Technology	34.4%
Utilities	0.0%
Cash	4.2%
<b>Total</b>	<b>100.0%</b>



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

**AVERAGE ANNUAL TOTAL RETURNS (as of December 31, 2016)**

	QTD	1 Yr	3 Yr	5 Yr	10 Yr	Since Inception 5/1/2002
<b>Concentrated Small-Cap Growth (gross of fees)</b>	<b>1.17%</b>	<b>6.93%</b>	<b>-0.80%</b>	<b>9.20%</b>	<b>7.41%</b>	<b>9.47%</b>
<b>Concentrated Small-Cap Growth (net of fees)</b>	<b>1.02%</b>	<b>6.32%</b>	<b>-1.35%</b>	<b>8.48%</b>	<b>6.81%</b>	<b>8.88%</b>
Russell 2000 Growth Index	3.57%	11.32%	5.05%	13.74%	7.76%	7.96%

Oberweis Asset Management, Inc. ("OAM") is an independent investment management firm that is not affiliated with any parent organization. The composite includes all fully discretionary accounts which invest at least 70% of their assets in the securities of U.S. traded companies with a market capitalization between \$100 million and \$2.5 billion at the time of investment. Beginning October 2010, the composite includes accounts managed with similar investment objectives that charge a bundled fee for investment advisory and administrative services. Effective January 1, 2008, portfolios with a market value of under \$5 million will be included in the composite. Prior to January 1, 2008, the minimum market value for portfolios to be included in a composite was \$5 million. From inception to 12-31-10, the composite name was Concentrated Smid-Cap Growth Equity. Accounts are dollar-weighted within the composite and reported in U.S. dollars.

The Russell 2000 Growth Index measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted earnings growth rates. The index is an unmanaged group of stocks, whose performance does not reflect the deduction of fees, expenses or taxes.

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.

**GROWTH OF \$10,000 — WITH INCOME INVESTED (May 1, 2002 – December 31, 2016)**


## The Oberweis Aperture

Our unique, highly disciplined investment approach includes a series of eight criteria to focus our research efforts.


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## 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.

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