Oberweis
Asset Management

# CONCENTRATED SMALL-CAP GROWTH STRATEGY

4Q 2017

## The Quarter and Year in Review

The Oberweis Concentrated Small-Cap Growth Composite returned 28.07% (27.39% net of fees) versus 22.17% for the benchmark Russell 2000 Growth Index in 2017, an outperformance of 590 basis points (522 basis points net of fees). During the fourth quarter, the Composite returned 5.12% (4.99% net of fees) versus 4.59% for the Russell 2000 Growth Index, an outperformance of 53 basis points (40 basis points net of fees).

This performance was generated in the face of mixed style and capitalization forces. Growth stocks outperformed value stocks by a wide margin during the quarter and the year[1], a reversal from 2016 which aided the portfolio from a style perspective. On the other hand, performance was hampered by the strength in low-quality stocks and biotech stocks. The lowest ROE quintile was the strongest performing segment within the benchmark; not coincidently, biotech stocks, which returned a staggering 60% in 2017 and represented nearly 10.7% of the benchmark at the year-end, detracted from portfolio performance. As previously discussed, we are consistently and substantially underweight biotech shares given that most companies lack earnings (and therefore the potential for earnings "surprises") and do not fit our investment philosophy.

The big surprise in 2017 was market volatility – or lack thereof. In fact, using the CBOE's VIX Index as a proxy, 2017 ranks as the "quietest" year for market volatility since 1990. During 2017, the VIX Index closed below 10 on 52 occasions, a stunning measure considering the VIX registered only nine such closes during the entire period from 1990 through 2016[2]. The biggest intra-year peak-to-trough decline for the S&P 500 Index during 2017, at 3.6%, was the lowest intra-year drawdown in the index since 1995[3]. We suspect a reversion to the mean could be in the offing in 2018.

Strength in equities was not limited to the U.S. in 2017, as European markets such as France, Germany, and the UK posted strong returns. Several emerging markets were also robust, led by rebounds in China and India and continued strength in Brazil. Japanese equities also performed well.

Global equities were buoyed by surprising economic and profits growth world-wide, and we believe recent data support strong economic growth in 2018. In the U.S., corporate profits accelerated in 2016 and 2017 and expectations are for continued growth in 2018 given the anticipated benefits from corporate tax reform. U.S. manufacturing PMI was stronger in 2017 than 2016, culminating in a December monthly reading that was the highest of the year. The U.S. consumer's balance sheet remains in great shape, bolstered by record net worth and historically low levels of debt service requirements. Housing is still affordably priced as mortgage rates – while higher than last year – remain at historically low levels. And despite an economic expansion nine years in the making, capital goods orders and housing starts are only at average historical levels, debunking concerns of froth or over-heating.

Furthermore, we believe the recently passed Tax Cuts and Jobs Act will fuel incremental economic growth in the short-term. Importantly, the reduction of the corporate tax rate to 21% will result in a cash flow boon for companies that should lead to increased levels of investment as at least a portion of that cash is plowed back. Furthermore, the repatriation of cash held abroad likely increases marginal spending by business on property, plant, equipment, and ultimately, jobs. The bill also allows for the immediate expensing of short-lived capital investments for the next five years to further encourage expenditures.

This corporate tax change and corresponding increase in free cash flow, as we noted last quarter, also favorably impact the valuation of U.S. stocks, particularly for small-cap companies that tend to do more business domestically than large-cap multi-nationals. We believe the upside to earnings from the tax change is not yet adequately reflected for many of our portfolio holdings. We also suspect that tax-related upward earnings estimate revisions will positively impact the flow of investment ideas for our portfolio in 2018.

More broadly, valuations (as measured by P/E's) in the U.S. are at above-average levels for both the S&P 500 Index and for our investable universe of small-cap growth companies, a fact that is discussed ad nausea on CNBC and in the financial media these days. We would continue to caution that these above-average P/E's are against a backdrop of interest rates that are well below average levels, theoretically rendering historical P/E comparisons – which occurred during higher rate environments – less important.

That said, we believe the biggest risk to equity markets – aside from simmering and frankly unpredictable geo-political events – lies with interest rates. The Federal Reserve has now clearly moved to a tightening stance, raising rates three times in 2017 and importantly embarking on a balance sheet reduction strategy that will become increasingly impactful in 2018. Additionally, Federal Reserve Chair nominee Jerome Powell represents a potential "uncertainty" as he takes office and puts his own stamp on central bank policies. The market may be hyper-sensitive to his comments early in his tenure, particularly given that the leadership change coincides with a shift in Fed policy to a more hawkish stance after nearly a decade of easy money.

While headlines and investor risk appetites can change on a whim in the short-term, our bottom-up strategy has always been focused on investing in businesses with idiosyncratic attributes that afford the potential for earnings growth to surprise to the upside. These companies are often undergoing a transformational change or event that we believe is potentially misunderstood or underestimated by the consensus. While the earnings multiples afforded such companies can oscillate from quarter to quarter, we believe that prudent stock selection of a diversified portfolio of companies with prospects for better-than-expected earnings growth is likely to outperform the broader market over the long-term.

1 For 2017, the Russell 2000 Growth Index and the Russell 2000 Value Index returned 22.17% and 7.84%, respectively. For the fourth quarter, the Russell 2000 Growth Index and the Russell 2000 Value Index returned 4.59% and 2.05%, respectively.

2 Source: Steven G. DeSanctis, Jefferies LLC.

3 Source: JP Morgan Guide to the Markets.

# CONCENTRATED SMALL-CAP GROWTH

4Q 2017

## Portfolio Highlights

As of December 31, 2017, the portfolio was 92% invested in 37 different positions. The portfolio had its largest weightings in technology (40.9% average weighting during the quarter versus 19.8% for the Russell 2000 Growth Index), consumer discretionary (16.6% versus 15.7%), and healthcare (15.5% versus 23.1%). In addition to healthcare, the portfolio was most underweight producer durables (8.5% versus 15.7%) and materials (2.2% versus 8.6%).

In the fourth quarter the portfolio was positively impacted by stock selection in technology (where our holdings returned 8.26% versus a 1.93% return for the benchmark's technology holdings). The portfolio was negatively impacted by stock selection in producer durables (-8.81% versus 4.81%) and healthcare (-2.22% versus 3.48%).

### PORTFOLIO CHARACTERISTICS
*(AS OF DECEMBER 31, 2017)*

| | |
|---|---|
| Number of Stocks | 37 |
| Weighted Market Capitalization (in millions) | $2,741 |
| Median Market Capitalization (in millions) | $2,361 |
| P/E Forward 4 Quarters (estimated) | 17.7x |
| Long-Term Future EPS Growth Rate (estimated) | 15% |
| Long-Term Debt to Total Equity | 12% |
| Return on Equity | 8% |
| Cash Position | 7.9% |
| Portfolio Turnover (2017) | 77.2% |

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 generally 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 approximately 30-40 of our team's 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**

**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**

Oberweis
Asset Management

# CONCENTRATED SMALL-CAP GROWTH

4Q 2017

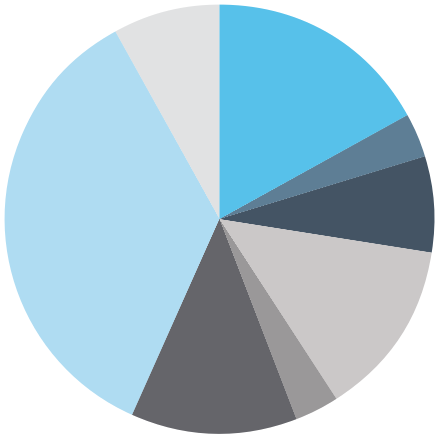
## TOP TEN HOLDINGS *(as of December 31, 2017)*

| | Company | | Line of Business |
|---|---|---|---|
| 1 | The Children's Place | 4.8% | Retailer that offers value-priced apparel and accessories for children |
| 2 | Burlington Stores, Inc. | 4.5% | Operates clothing retail stores focused on low prices |
| 3 | LogMeIn, Inc. | 4.4% | Provides a portfolio of cloud-based service offerings which helps people and businesses to connect to their workplace, colleagues, and customers |
| 4 | Ceva, Inc. | 4.3% | Licensor of DSP cores and integrated applications to the semiconductor industry |
| 5 | Rogers Corp. | 4.0% | Manufactures specialty materials and components |
| 6 | OraSure Technologies | 3.3% | Develops diagnostic tests used to detect infectious diseases |
| 7 | Extreme Networks, Inc. | 3.2% | Provides soft-ware driven networking solutions |
| 8 | Patrick Industries, Inc. | 3.2% | Manufactures building materials used primarily by the recreational vehicle industry |
| 9 | Monolithic Power Systems | 3.2% | Designs and manufactures power management solutions |
| 10 | Eagle Bancorp, Inc. | 2.9% | Bank holding company that offers commercial banking services to individuals |

*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, 2017)*

| | |
|---|---|
| Consumer Discretionary | 17.0% |
| Consumer Staples | 0.0% |
| Energy | 3.4% |
| Financial Services | 7.1% |
| Health Care | 13.6% |
| Materials & Processing | 3.2% |
| Producer Durables | 12.4% |
| Technology | 35.4% |
| Utilities | 0.0% |
| Cash | 7.9% |
| **Total** | 100.0% |



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

Oberweis
Asset Management

# CONCENTRATED SMALL-CAP GROWTH

4Q 2017

**AVERAGE ANNUAL TOTAL RETURNS** ***(as of December 31, 2017)***

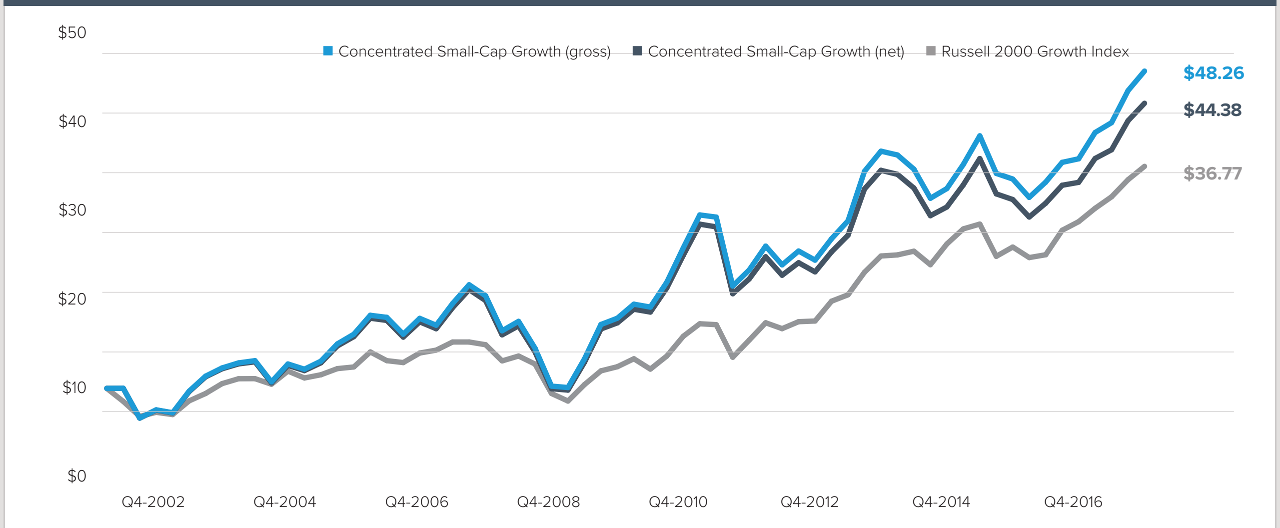
| | QTD | 1 Yr | 3 Yr | 5 Yr | 10 Yr | Since Inception 5/1/2002 |
|---|---|---|---|---|---|---|
| **Concentrated Small-Cap Growth (gross of fees)** | **5.12%** | **28.07%** | **12.29%** | **13.64%** | **8.59%** | **10.57%** |
| **Concentrated Small-Cap Growth (net of fees)** | **4.99%** | **27.39%** | **11.67%** | **13.05%** | **7.99%** | **9.98%** |
| Russell 2000 Growth Index | 4.59% | 22.17% | 10.28% | 15.84% | 9.19% | 8.82% |

*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, 2017)***




## The Oberweis Aperture

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

READ MORE

## 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