Oberweis
Asset Management

MICRO-CAP GROWTH MARKET COMMENTARY

4Q 2023

The Quarter in Review

The Oberweis Micro-Cap Growth Composite returned 9.59% (9.36% net of fees)compared to 15.64% for the benchmark Russell Microcap Growth Index during the quarter, lagging by 605 basis points (628 basis points net of fees). For the full year, however, results were strong, with the composite returning 20.43% (19.43% net of fees) versus 9.11% for the index, or 1,132 basis points (1,032 basis points net of fees)of excess return.

2024 marks the start of our 10th year since we executed on a leadership, philosophy, and process change at the beginning of 2015. We're thrilled that for the nine years ending December 31, 2023, the Oberweis Micro-Cap Growth composite returned 16.71% annualized (net of fees) versus 3.60% for the Russell Microcap Growth Index, a healthy outperformance of 1,311 basis points per year. To frame up the magnitude of the difference, $1 million invested in the strategy on January 1, 2015 would be worth $4.02 million compared to $1.37 million if invested in the index, or $2.65 million better.

The market environment for micro-cap stocks was mixed in 2023. From a capitalization standpoint, the lowest capitalization stocks performed better than stocks with market caps greater than $1 billion in the fourth quarter. Over the full year, however, stocks with market caps under $1 billion lagged stocks in the Russell 2000 Growth Index with capitalizations over that threshold by an average of over 1,800 basis points.

The environment in the fourth quarter was not particularly favorable for our investment style, which mainly focuses on profitable micro-cap companies that have recently generated a significant positive earnings surprise. Interestingly, much of the rally in micro-caps occurred in the last two months of the year as investors scrambled to increase exposure to small-caps (of which micro-caps are a subset) in reaction to an unexpectedly swift decline in interest rates. As a result, the micro- and small-cap market was led during the quarter by junky companies, those that are unprofitable and/or have low returns-on-equity (ROE) and are most sensitive to changes in interest rates. In fact, during the final three months the lowest ROE quintile within the Russell 2000 Growth Index performed best and trumped the average return of the top three quintiles by nearly 1,000 basis points. Notably, our portfolio is nearly 70% exposed to those top three ROE quintiles. Additionally, non-earners within that index outperformed companies with earnings by over 700 basis points during the quarter and represented another strong headwind; 85% of our portfolio was invested in companies that had positive earnings in the latest reported quarter.

The biggest story as the quarter unfolded was the substantial drop in the 10-year U.S. Treasury yield, which fell from a peak of 4.99% in early October to 3.87% at year-end over euphoric expectations of a "Fed pivot." Fed Funds futures are now predicting six interest rate cuts by the Fed in 2024, beginning in March. For what it's worth, that seems a bit optimistic to us. Real interest rates are still negative and we would remind our readers that the bond market is no better as a predictor of the future than economists, Fed governors, or your hometown psychic. Over longer periods of time, we believe our focus on higher quality micro-cap companies generating earnings surprises because of misunderstood fundamentals will prove to generate better returns. These firms have idiosyncratic attributes that don't depend as much on macro factors like interest rates and economic growth.

Current economic conditions, though not robust, appear to be steady. We wouldn't be surprised if economic activity cools in 2024 as the impact of the Fed's rate hikes finally take hold, but for now things are stable. The U.S. consumer, which represents nearly 70% of the economy, has about $1 trillion of excess savings and a debt service ratio that remains well below the long-term average. The consumer is also well-employed and is likely to benefit from moderating inflation. Nonfarm payroll gains, while declining, remain positive. The other big economic engine, our government, is still spending hundreds of billions of dollars earmarked during the Covid stimulus period, and we expect the spigot will remain wide open throughout 2024 and into 2025. Afterall, this is an election year.

AVERAGE ANNUAL TOTAL RETURNS ***(as of December 31, 2023)***

	QTD	1 Yr	3 Yr	5 Yr	10 Yr	Since Inception 1/1/1996
Micro-Cap Growth (gross of fees)	**9.59%**	**20.43%**	**19.27%**	**22.47%**	**15.11%**	**13.16%**
Micro-Cap Growth (net of fees)	**9.36%**	**19.43%**	**18.24%**	**21.46%**	**14.09%**	**12.12%**
Russell Microcap Growth Index	15.64%	9.11%	-8.22%	5.97%	3.67%	N/A

Past performance is not necessarily indicative of future results. Performance is historical and includes the reinvestment of dividends and other income. Unusually high returns may not be sustainable. The strategy invests in rapidly growing smaller and medium-sized companies that may offer greater return potential. However, these investments often involve greater risks and volatility. Foreign investments involve greater risks than U.S. investments, including political and economic risks and the risk of currency fluctuations. Net-of-fee composite returns are calculated using the highest model investment advisory fees applicable to portfolios within the composite. Advisory fees are disclosed in Part II of Form ADV.

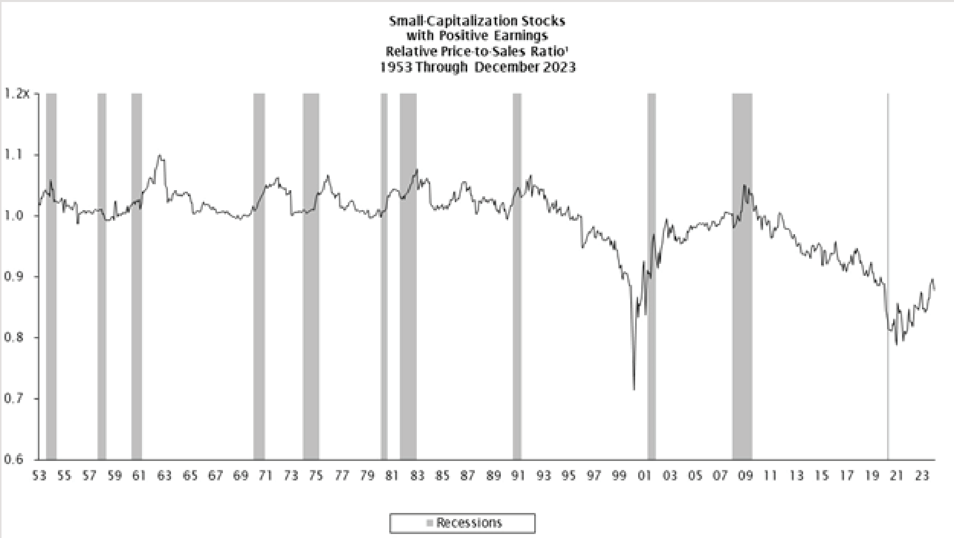
Oberweis Asset Management, Inc. ("OAM") is an independent investment management firm that is not affiliated with any parent organization. The composite returns are comprised of all fully discretionary accounts with a minimum value of $5 million. Performance results, from 1-1-96 until 12-31-03 and 9-1-11 to present were derived solely from the performance of the Oberweis Micro-Cap Fund, a registered, open-end mutual fund, for which OAM serves as investment adviser. Prior to November 4, 2001, James D. Oberweis was the sole portfolio manager for the Micro-Cap Fund during the period of the performance results noted. Accounts are dollar-weighted within the composite and reported in U.S. dollars.

The Russell Microcap Growth Index measures the performance of those Russell Micro Cap companies with higher price-to-book ratios and higher forecasted growth values. The performance data includes reinvested dividends. The Russell Microcap Index is represented by the smallest 1,000 securities in the small cap Russell 2000 Index plus the next 1,000 securities. Each index is an unmanaged group of stocks, whose performance does not reflect the deduction of fees, expenses or taxes. It is not possible to invest directly in an index.

The Quarter in Review (continued)

While lower quality companies led the recent micro-cap resurgence, we think the entire small-cap asset class, including micro-caps, is overly ripe for a lengthy period of outperformance. We believe small-cap risks are substantially lower following a decade-plus of underperformance for the asset class. Small-caps (including micro-caps) have lagged large-caps since September 2013 by nearly 500 basis points annualized[1], and importantly, are as cheap as they've been relative to large-caps since the late 1990's. Large-cap stocks are universally loved, with the top 10 holdings in the S&P 500 representing a record 32% of that index. Meanwhile, small-caps are unloved and currently account for less than 4% of the total U.S. equity market, the lowest level in nearly 100 years. While we don't pretend to know exactly when the shift from large to smaller companies will begin, we are quite confident that smaller-caps will materially outperform large-caps over the next 5 to 10 years. It could begin in 2024 or 2025 or 2026, but this type of valuation gap won't persist indefinitely. In our opinion, it's a generational opportunity.

Within micro-caps, it's imperative to be a discerning investor. Buyers should beware because there's a lot of rubbish in the space. Non-earners last quarter represented roughly 55% of the Russell Microcap Index. In the broad small-cap universe, non-earners still trade at a pronounced valuation premium relative to the entire small-cap universe. While they may move higher in the short-term – particularly if interest rates continue to decline – over the intermediate- to long-term we believe investors would be wise to focus on the profitable companies within the micro-cap market. In our experience, quality companies outperform over time and are especially compelling right now. Those companies, as shown in the graph below, trade at a significant valuation discount to their long-term average. In our view, a focus on profitable micro-cap stocks should pay off very handsomely over the next decade because the starting point here is statistically compelling. We believe our portfolio is well positioned to capture this opportunity.



Source: Empirical Research Partners Analysis.
[1] Capitalization-weighted data, relative to all small-cap stocks.

[1]From September 30, 2013 through December 31, 2023, the S&P 500 returned 12.81% annualized compared to 7.85% annualized for the Russell 2000 Index, a difference of 494 basis points annualized.

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Portfolio Highlights

As of December 31, 2023, the portfolio was 98.0% invested in 86 different positions. The portfolio had its largest over-weightings in technology (26.8% average weighting during the quarter versus 16.6% for the Russell Microcap Growth Index), and industrials (23.9% versus 14.6%). The portfolio was most underweight healthcare (19.1% versus 34.9%, primarily due to our significant biotech underweighting), consumer staples (0.3% versus 2.7%), and financials (5.9% versus 8.3%).

Overall performance in the fourth quarter was positively impacted by strong stock selection in consumer discretionary (where our holdings returned 25.5% versus a 20.0% return for the benchmark's consumer discretionary holdings) and industrials (15.0% versus 12.6%). Performance was negatively impacted by stock selection in healthcare (10.1% versus 21.5%) and technology (7.0% versus 9.4%).

Organization Update

There was no change to the team during the quarter.

Oberweis Asset Management's Investment Philosophy

We believe that investing in smaller companies driving revenue and earnings growth in excess of expectations results in superior investment performance over long periods of time. We believe that innovation is the key to economic growth and wealth creation and are committed to investing in companies at the forefront of innovation – smaller company stocks that offer the potential for extraordinary revenue and earnings growth.

The entrepreneurial spirit is alive and well at these companies. Many are nimble and uniquely address the needs of their customers with patented new products and services. Successful investing, however, demands more than finding companies with good growth prospects. We must also buy these stocks for our clients at prices that make sense. By paying careful attention to companies' valuations in relation to expected earnings growth rates, we seek to purchase stocks when they still have considerable appreciation potential.

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