Oberweis
Asset Management

INTERNATIONAL OPPORTUNITIES MARKET COMMENTARY

4Q 2023

Review

During the fourth quarter, the International Opportunities Strategy returned +8.56% (8.32% net of fees) vs. +11.18% for the benchmark, the MSCI World Ex USA Small Cap Growth Index. For the year, the strategy returned +6.87% (5.91% net of fees) vs. +10.57% for the benchmark.

Returns of the past two years have been among the more difficult since the strategy's inception in 2007, following a very strong period the prior years, with the strategy outperforming on a 5-year basis and returning a cumulative +46.01% (39.59% net of fees) vs. +38.22% for the benchmark. One of the challenges in running a strategy focused on a specific market anomaly is the inherent factor exposure of the portfolio relative to its benchmark. In our case, we seek to invest in misunderstood growth situations, often evidenced by earnings surprise or earnings revision. We use earnings surprise and earnings revision as a signal of potential misunderstanding. Obviously, that means the portfolio will consistently have exposure towards earnings revision and earnings surprise, and that exposure adversely affected our return in 2023.

To quantify, Empirical Research Partners (ERP) studied the effect of earnings revision on return in 2023 among non-US small-cap equities. Across the entire international small-cap universe, they found a marked variance in returns between companies with significantly positive earnings revisions and those with the worst revisions. This was most pronounced in some of our largest sectors, like industrials, information technology, and healthcare. In industrials, the return spread between the quintile with the highest revisions and the lowest quintile was -8.2%, meaning companies with the worst revisions materially outperformed. Similarly, in healthcare the return spread between the best quintile and the worst quintile was a massive -25.4%. In information technology, the spread was -16.1%. Since a large share of our holdings exhibit strong fundamentals that tend to lead to high positive earnings revisions, it is easy to understand why we lagged in 2023.

Going forward, we expect our process to continue to generate alpha over the long term just as it always has in the past over full market cycles. If anything, we believe the recent underperformance incrementally increases future return potential. We exploit a market anomaly that has been tested for 60 years. It persists because of behavioral biases that are unlikely to subside. Our team is the same and our process remains unchanged.

Also, despite a tough period in the short-term, our long-term track record is strong.. Since inception, the strategy has returned a strong cumulative +321.72% (262.41% net of fees) vs. +96.49% for the benchmark. and ranks among the very best-performing international small-cap strategies (Source: eVestment (12/31/2023)[1]. While our longest clients have done very well with us, we can certainly empathize with clients whose entry timing has proven less opportune. We ask for your patience, as such style headwinds do not tend to persist indefinitely and we fully expect that some of these headwinds will eventually shift to tailwinds.

Valuations for international small-caps look very attractive. Notably, this is true both in absolute and relative terms. Absolute metrics like free cash flow yields of non-US small-caps point to some of cheapest valuations of the last 30 years (see chart). Further, after a decade of US large-cap dominance, the gap between large-cap and small-cap valuations is arguably the largest we have seen in our careers. We have found that some of the best entry points for our strategy have occurred when valuations look cheap, and that is the case right now. As a result, the team recently added significantly to their personal holdings in the strategy.

[1]Based on data submitted to eVestment as of 01/11/2024. Peer group defined as all Non-US Diversified Small-Cap Equity strategies tracked by eVestment. eVestment provides third party databases, including the institutional investment database from which the presented information was extracted. Over 4,500 firms actively submit data to eVestment. No representation or warranty is made by Oberweis Asset Management, Inc. ("OAM") as to the validity and appropriateness of the eVestment rating. eVestment ratings should not be viewed as representative of the experience of other investors and is no guarantee of future performance. OAM pays a subscription fee for services to eVestment.

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

	QTD	1 Yr	3 Yr	5 Yr	10 Yr	Since Inception 2/1/2007
International Opportunities (gross of fees)	**8.56%**	**6.87%**	**-10.89%**	**7.86%**	**5.72%**	**8.88%**
International Opportunities (net of fees)	**8.32%**	**5.91%**	**-11.70%**	**6.90%**	**4.77%**	**7.91%**
MSCI World ex-US Small-Cap Growth Index	11.18%	10.57%	-4.24%	6.69%	4.88%	4.07%

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 2-1-07 until 7-31-08, were derived solely from the performance of the Oberweis International Opportunities Fund, a registered, open-end mutual fund, for which OAM serves as investment adviser. Accounts are dollar-weighted within the composite and reported in U.S. dollars.

The MSCI World ex-US Small-Cap Growth Index (Net) is a free float-adjusted market capitalization weighted index that is designed to measure the performance of small cap growth developed markets excluding the U.S. with minimum dividends reinvested net of withholding tax. It is not possible to invest directly in an index.

Review (continued)

Market Environment

Globally, equity returns in the fourth quarter were dominated by the behavior of the bond market. This continued a trend that has been a primary feature of 2023, with the majority of the return dispersion of stocks this year explicable by interest rate changes. At year-end, the U.S. 10 Treasury yield closed at 3.87% having peaked at just below 5% in mid-October following a dramatic move higher from Labor Day. A strong U.S. economy and the growing budget deficit contributed to the rise, along with the Federal Reserve raising its forecast for real short rates by 50 basis points at its September meeting. Just as "higher for longer" began to be priced in by investors, the October CPI report was more benign than expected, before the Fed signaled at its December meeting that it may start cutting interest rates in 2024. This dynamic was mirrored in the rest of the developed world. In the Euro area year-over-year inflation started the year at +8.6% in January, moving lower to +2.4% in November, well below expectations. By year-end German bund yields had fallen almost 100bps from their 2.97% peak in October. The situation was similar in the United Kingdom. In Japan, yields also declined but this coincided with a strengthening yen, likely driven by the decline in U.S. rates as well as a continuing debate over potential tightening of monetary policy by the BoJ. Notably, rising rates in 2022-2023 disproportionately hurt small-cap growth stock valuations; some of the best periods in history for small-caps have occurred when the market discounts the end of a rising interest rate cycle. We do not know if significant cuts will happen in 2024 or not, but at a minimum we do not anticipate more increases.

Furthermore, in the key developed markets there were encouraging signs of expanding economic activity over the quarter. In the United Kingdom, December PMI data improved as business sentiment turned positive on consumer demand as well as relief from cost pressures. In the Euro area, PMI data decelerated at the end of the year but the underlying forward-looking data, including expectations surveys and new orders, indicate a pick-up in activity in 2024. In Japan, the production outlook for December calls for a +3.2% increase while retail sales growth accelerated for the month of November.

In summary: lower inflation, lower rates, and an improving growth outlook – in combination these factors will usually provide a favorable setting for small-cap equities. The benchmark rallied from the low of the year in late October, adding over 20% from 10/26 into year-end. Valuation spreads, which measure the dispersion of valuations within regions and sectors, and which are an indication of the degree of market concern around the economic outlook, ended the year only slightly above their long-term average. This relatively subdued level compares with more elevated extremes seen during economic contractions, such as early in the Pandemic. Taken together with declining yields, at year-end the equity markets appear to be discounting a soft landing for the global economy as well as a continuing disinflationary environment.

Outlook

As mentioned above, in 2023 the movement of long rates explained the majority of the return dispersion across equity markets, an unusual if not unprecedented occurrence. Such periods have historically proven to be temporary, and when they have ended, equities have generally performed well. If and when this occurs the source of dispersion should become more idiosyncratic with factor exposure explaining a relatively smaller percentage of the returns.

Markets believe that inflation has further to fall. We consider this disinflation expectation – abetted by lower rents in the U.S., and subsiding wage growth pressure in key regions – to be the most reasonable base case. The controversy over where interest rates should be, and the volatility of Treasuries, therefore ought to lessen. In addition, the global data suggest that PMIs are bottoming, with a cyclical earnings recovery in the offing. This, together with a likely benign inflation outcome and a relatively attractive valuation starting point, promises an attractive environment for small cap strategies. There are further reasons to be sanguine. Negative investor sentiment remains near historically high levels, a bullish contrarian indicator.

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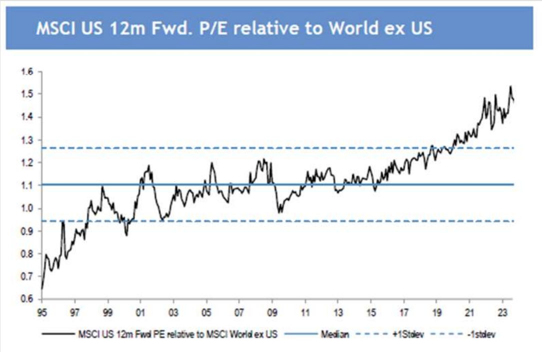
Outlook (continued)

The outlook for developed markets consumer spending remains on solid footing: house prices should be supported as rates fall while real incomes have improved due to solid wage gains and cooling inflation; consumer debt service ratios are still contained. Also, artificial intelligence became a cornerstone of the Zeitgeist in 2023 and for good reason in our view. It will likely take a number of years for AI's impact on the economy to become material to the big picture. However, over time automation is likely to continue to exert downward pressure on aggregate wage growth, supporting margins. Additionally, a significant number of jobs will conceivably benefit from use of the technology, enhancing productivity.

Set against these positive factors, the market's valuation structure reflects its optimistic view of the economic outlook, with spreads sitting close to their long-term average and material intra-sectoral discrepancies reasonably subdued. With the market now also pricing in interest rate cuts by the Fed in 2024, a potential Achilles' heel for global equities is if either growth or inflation data argue against such a benign narrative. There remains scope for events to drive risk premia higher. Notably, a commercial real estate credit cycle in the U.S. continues to be a real risk. Also, roughly half of the world's population is due to vote over the next twelve months, most conspicuously in the United States. Military conflict has the potential to spread over multiple parts of the world.

When compared to the United States, international valuations look to represent compelling value. The chart below from JP Morgan shows that the US 12 month forward PE remains close to a 30 year high:



Portfolio Highlights

At quarter-end, the portfolio was invested in 62 stocks in 13 countries. Our top five country weightings (portfolio weighting versus the MSCI World Ex USA Small Cap Growth Index) at the end of the quarter were United Kingdom (23.4% vs. 13.1%), Japan (20.0% vs. 31.2%), Canada (13.9% vs. 9.1%), Netherlands (10.2% vs. 1.2%), and Australia (8.7% vs. 8.4%). On a sector basis, the portfolio was overweight industrials (31.2% vs. 23.4%) and underweight health care (3.7% vs. 9.7%).

Organization Update

There are no changes to the International team or strategy.

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.

For more information please contact:
Brian K. Lee, Director of Marketing & Client Service
(800) 323-6166 | (630) 577-2321 |
brian.lee@oberweis.net

Marc Carlson, Director Marketing & Client Service
(800) 323-6166 | (630) 577-2364 |
marc.carlson@oberweis.net

Oberweis Asset Management, Inc.
3333 Warrenville Rd., Suite 500, Lisle, IL 60532