Oberweis
Asset Management

EMERGING MARKETS MARKET COMMENTARY

4Q 2022

The Quarter in Review

The Oberweis Emerging Markets strategy climbed 10.95% (10.49% net of fees) during the fourth quarter of 2022, outperforming the MSCI Emerging Markets Small-Cap Index, which serves as our benchmark, by 275 basis points (229 basis points net of fees). After a difficult three quarters for both global equity markets and the strategy, we were glad to conclude the year with a quarter of positive absolute and relative returns. Outperformance over a quarter is welcome, but we are far more interested in how our performance looks over a time period that more closely corresponds with the five-year time horizon we use when analyzing investments. We are pleased to report that since the strategy's June 2018 inception, the portfolio's 29.68% (22.68% net of fees) cumulative return has substantially outperformed the benchmark's 7.59% cumulative return.

The quarter's big story was China. We see events in China marking the obvious hinge point for the MSCI Emerging Markets Small-Cap Index's performance during the quarter. The benchmark fell slightly as the quarter started before turning a corner in late October and rallying nearly 8% through the end of December. The Chinese subset of the Index rallied more than 30% during the last two months of the quarter. China and two countries closely tied to it economically—Taiwan and South Korea—generated most of the Index's performance in late 2022.

The Chinese market bottomed in late October when it dipped in the wake of the quintennial Communist Party Congress. We suspect that the market took a dim view of President Xi's consolidation of power as he secured an unprecedented third term as President, as well as an overall tone at the Congress that suggested no changes to economic and Covid policies. The dim view did not last long. Four developments in early November weakened the main supports holding up the China bear case and fueled the subsequent rally. First, and perhaps most importantly, rumors circulated on Chinese social media that the government's economically damaging Zero Covid policy would be relaxed. Within a few days, a variety of local-government rule changes seemed to confirm the rumors and the stock-market rally was underway.

Second, American auditors finished their first batch of audits on U.S.-listed Chinese stocks ahead of schedule. The threat of Chinese companies being delisted from American stock exchanges due to audit noncompliance dangled over the head of those stocks for more than a year. The successful audits undermined a major bear case against those firms and, importantly, indicated that Chinese and American officials were still able to meet and resolve conflicts.

Then, in mid-November, the Chinese government issued a raft of property market-support measures that were well received by the market. In addition to Covid lockdowns, the weak property market—and the fear that a wave of property-developer defaults might wash over Chinese banks—had been an economic and stock market headwind. The government had done little to address the issue. That seemed to change in November. Given the outsized importance of the real estate market to the Chinese economy, relief for that sector was a major positive development.

Finally, and around the same time as the property supports were introduced, President Biden and President Xi met face to face at the G20 Summit in Indonesia. Talk of a new Cold War, conflict in the Taiwan Strait, semiconductor-equipment export bans and other points of contention captured a lot of headlines in 2022. One meeting between the two heads of state certainly does not mean all those issues are resolved. The meeting, however, did indicate that lines of communication are still open and that perhaps tensions were not quite as high as many commentators suggested. As Winston Churchill famously said, "Jaw-Jaw is better than War-War." We think the Xi-Biden meeting showed that there is still ample scope for Jaw-Jaw, and that the two countries are a long, long way from War-War.

The strategy's overweight position in Chinese equities drove most of the relative outperformance. We were, however, overweight China all year, which was the main driver of relative underperformance prior to the fourth quarter. At no time did we make an explicit top-down decision to tilt the portfolio toward China. Instead, China was where we found the lion's share of the compelling bottom-up opportunities in developing countries. To be clear, we never thought the various public health, political or economic headwinds in China were permanent. Moreover, we stress-tested our company analyses and valuation models against some dire-but-possible economic outcomes and concluded that the valuations in China were still compelling. In last quarter's commentary, we wrote that China presents "some of the best bargains we have seen in our careers." Many of those equities have rallied since then. But, broadly speaking, we continue to think they are undervalued and have room to appreciate further.

AVERAGE ANNUAL TOTAL RETURNS ***(as of December 31, 2022)***

	QTD	1 YR	3 YR	Since Inception 6/1/2018
Emerging Markets (gross of fees)	**10.95%**	**-22.59%**	**8.79%**	**5.83%**
Emerging Markets (net of fees)	**10.49%**	**-23.84%**	**7.50%**	**4.56%**
MSCI Emerging Markets Small-Cap Index	8.20%	-18.02%	5.11%	1.61%

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. 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 6-1-18 to present, are derived solely from the performance of the Oberweis Emerging Markets 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 Emerging Markets Small Cap Index is a free float-adjusted, market capitalization-weighted index that measures the performance of small-cap stocks in 24 emerging markets.

The Quarter in Review (continued)

Taking a closer look at the portfolio, issue selection added 252 basis points to relative performance during the quarter while country allocation added 4 basis points. The biggest contributors to performance were China, which added 235 basis points in relative outperformance, and Indonesia, which added 79 basis points. Turkey and Vietnam were the two biggest detractors from relative performance, subtracting 100 basis points and 52 basis points, respectively. Looking at the attribution on a sector basis, Consumer Discretionary and Health Care were the largest contributors to performance, adding 308 basis points and 109 basis points, respectively. The largest detractors were Real Estate, which subtracted 54 points in relative performance, and Communication Services, which subtracted 93 basis points.

Outlook

We remain excited about the investment potential in emerging markets. We believe the drive of people who live in the developing world to live better, healthier and more productive lives is inexorable. Moreover, we continue to believe that drive will fuel structural growth in spending on consumer goods and healthcare, as well as investments in infrastructure and automation. Our strategy to invest in prudently managed and competitively advantaged companies that are positioned to benefit from that long-term structural growth, remains unchanged.

We also continue to believe that emerging markets equities are attractively valued. According to data compiled by Bloomberg, the MSCI Emerging Markets Small Cap Index traded at a forward price-to-earnings multiple of 12.2 times at the end of the fourth quarter, which is lower than the 13.8 times average forward earnings that the Index has traded at over the past ten years. Emerging markets small cap equities look attractive relative to the rest of the world. Bloomberg reports that the globe spanning MSCI All Country World Index (ACWI) trades at 14.9 times forward earnings while the S&P 500 trades at 17.5 times. Given the comparatively attractive long-term growth opportunities we see for smaller companies in developing markets, we think the lower valuation multiple is attractive.

Portfolio Highlights

At quarter-end, the portfolio was invested in 66 stocks domiciled in 20 countries. Our top five country weightings (portfolio versus the MSCI Emerging Markets Small Cap Index) were China (16.8% vs. 7.3%), India (15.8% vs. 25.3%), Taiwan (13.9% vs. 19.6%), Indonesia (9.3% vs. 2.8%), and Brazil (8.9% vs. 6.7%). The strategy's largest overweight sectors were Information Technology (26.4% vs. 16.1%), Consumer Discretionary (22.4% vs. 12.0%), and Consumer Staples (12.1% vs. 6.5%). The largest underweight sectors were Financials (2.9% vs. 11.1%), Industrials (7.9% vs. 15.5%), and Real Estate (0.8% vs. 6.7%).

Organization Update

We are pleased to announce that Eric Hannemann, our new chief financial officer, and Tom Joyce, our new chief compliance officer, have been named Partners of Oberweis Asset Management, Inc. As we disclosed previously, Eric and Tom have assumed the responsibilities of our former colleague Pat Joyce, who retired on December 31, 2022.

Oberweis Asset Management's Investment Phillosophy

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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