Micro Caps – A Distinct Segment

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Introduction

A few large asset owners have expressed a preference for an expanded opportunity set that goes beyond the traditional equity universe comprised of large, mid, and small capitalization companies. These investors have typically focused on the domestic equity market. In order to address these needs, MSCI recently launched the MSCI All Cap Indices, which aim to provide comprehensive yet accessible coverage of all capitalization segments. The MSCI All Cap Indices include micro cap securities across 24 Developed Markets and complement the existing MSCI Investable Market Indices (IMI), which cover large, mid and small cap companies.

In this bulletin, we focus on the distinct characteristics of the micro cap segment and contrast it with the investable market (IMI) segments.

Unique Characteristics of Global Micro Cap Securities

Given some of their unique characteristics, micro cap securities represent a distinct opportunity set as summarized in Exhibit 1. In the MSCI indices, these companies typically have much lower market capitalization compared to large, mid, and small cap securities, with float market capitalizations of micro cap securities typically ranging from USD 10 MM to USD 400MM. In addition, this size segment represented in the MSCI indices covers many securities with much lower liquidity, with a minimum ATVR[1] of 5%. These securities are relatively under-researched by the mainstream analyst community. This is reflected in the much lower average IBES analyst coverage for these companies as compared to large cap companies.

The inclusion of investable micro cap securities in the MSCI World All Cap Index nearly doubles the existing opportunity set available to investors. Exhibit 1 shows that the index concentration within the MSCI World Micro Cap Index is comparable to the MSCI World Small Cap Index, but lower than the MSCI World Index, with 1,042 micro cap securities (nearly 22% of the total number of micro cap securities) representing 50% of the MSCI World Micro Cap Index . Furthermore, the average semi-annual index turnover of the MSCI World Micro Cap Index is higher compared to the Standard (large +mid cap) and small cap size segments. It should be highlighted that the MSCI World Micro Cap Index covers securities that trade on major exchanges across the 24 Developed Markets (as per the MSCI Global Investable Market Indices Methodology) and excludes securities trading in OTC markets and Pink Sheet stocks.

[1] ATVR is the Annualized Traded Value Ratio, an important measure of security level liquidity.

Exhibit 1: Comparison of MSCI World Micro Cap Index with MSCI World Index and MSCI World Small Cap Index

Characteristic	Metric	MSCI World Micro Cap Index	MSCI World Index	MSCI World Small Cap Index
Size	Median Security Float Market Cap (in USD millions)	47	6,202	482
Coverage	Market Cap Coverage in MSCI World All Cap Index	1.2%	85.4%	13.4%
Universe	Number of Securities	4830	1659	4625
Liquidity	Minimum ATVR	5%	20%	20%
Turnover	Semi-Annual One-way Index Turnover**	14.50%	1.34%	5.36%
Analyst Coverage	Average Analyst Coverage per security***	3	16	6
Concentration	Number of Securities comprising 50% of the Index weight	1042	166	798

* Based on Data as of Dec 01 2010

**Average Semi-Annual Turnover based on Index data from May 08 - May 10

*** Based on IBES Estimates

Exhibit 2 contrasts the liquidity distribution of securities in the MSCI World Micro Cap Index and the MSCI World Small Cap Index. The minimum ATVR threshold for the MSCI World Micro Cap Index is lower at 5% compared to 20% for the MSCI World Small Cap Index. In addition, 1,709 securities with cumulative weight of 29.7% in the MSCI World Micro Cap Index have an ATVR below 20%, whereas only 149 securities with a cumulative weight of 1.4% in the MSCI World Small Cap Index have an ATVR below 20%[2]. The additional coverage of micro cap securities, albeit with lower liquidity, provides an exhaustive coverage of 99.8% of the equity universe within the MSCI World All Cap Index, subject to minimum size and liquidity thresholds.

Exhibit 2: Liquidity Distribution - Comparison of MSCI World Micro Cap Index and MSCI World Small Cap Index

	MSCI World Micro Cap				MSCI World Small Cap			
ATVR	Number of securities	% of securities	Float Market Cap (in USD millions)	% of Market Cap	Number of securities	% of securities	Float Market Cap (in USD millions)	% of Market Cap
>50%	1,590	32.9%	110,279	35.1%	3,172	68.6%	2,888,316	79.5%
40% - 50%	323	6.7%	22,990	7.3%	488	10.6%	316,105	8.7%
30% - 40%	500	10.4%	37,434	11.9%	458	9.9%	228,193	6.3%
25% - 30%	319	6.6%	23,316	7.4%	196	4.2%	85,539	2.4%
20% - 25%	389	8.1%	27,022	8.6%	162	3.5%	66,092	1.8%
15% - 20%	495	10.2%	30,007	9.6%	125	2.7%	42,038	1.2%
10% - 15%	548	11.3%	29,062	9.3%	24	0.5%	8,834	0.2%
7.5% - 10%	339	7.0%	17,208	5.5%	0	0.0%	0	0.0%
5% - 7.5%	327	6.8%	16,739	5.3%	0	0.0%	0	0.0%
0% - 5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4,830		314,058		4,625		3,635,117	

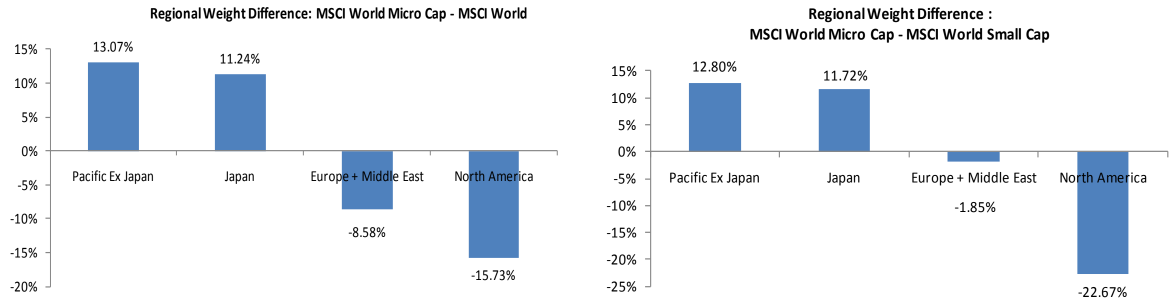
* Based on Index Data as of Dec 01, 2010

[2] The ATVR lower buffer for small cap securities is 13.3% as per the MSCI Global Investable Market Indices Methodology.

Distribution of Global Micro Cap Securities across Regions, Countries and Sectors

The regional allocation of the MSCI World Micro Cap Index differs significantly from the allocation of the MSCI World and MSCI World Small Cap Indices. Exhibit 3 shows that the MSCI World Micro Cap Index has significant overweighting in Pacific ex Japan and Japan, and significant underweighting in North America and Europe, relative to MSCI World and MSCI World Small Cap Indices.

Exhibit 3: Regional Weight Differences: MSCI World Micro Cap Index vs. MSCI World Index and MSCI World Small Cap Index



Based on Index data as of Dec 01, 2010.

These differences can be further analyzed at the country level. Exhibit 4 shows that Japan, Canada, and Australia are the top countries with significant overweighting, and the USA, Switzerland, and the UK are the top countries with significant underweighting in the micro cap segment, relative to their weights in the MSCI World and MSCI World Small Cap Indices.

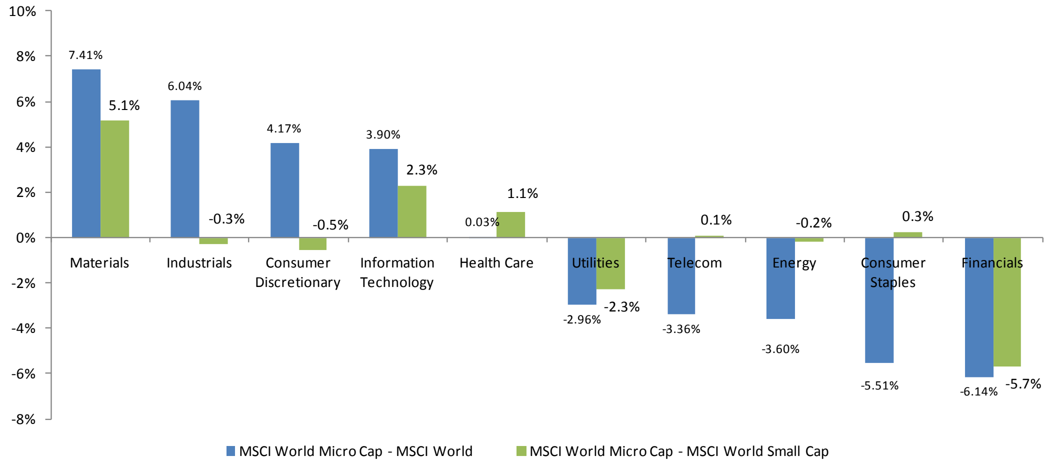
Exhibit 4: Country Weight Differences: MSCI World Micro Cap Index vs. MSCI World Index and MSCI World Small Cap Index

MSCI World Index				MSCI Small Cap Index			
Country	**Overweight**	**Country**	**Underweight**	**Country**	**Overweight**	**Country**	**Underweight**
Japan	11.24%	United States	-25.03%	Japan	11.72%	United States	-31.44%
Canada	9.31%	Switzerland	-2.95%	Canada	8.77%	Switzerland	-1.17%
Australia	5.59%	United Kingdom	-2.70%	Australia	5.65%	United Kingdom	-0.78%
Hong Kong	3.78%	France	-2.01%	Hong Kong	3.81%	Netherlands	-0.55%
Singapore	2.72%	Spain	-1.19%	Singapore	2.52%	Italy	-0.42%

Based on Index Data as of Dec 1,2010

The distribution of micro cap securities across sectors also shows significant differences, as seen in Exhibit 5. Sectors such as Materials, Industrials, Consumer Discretionary and Information Technology show large overweighting, whereas Financials, Consumer Staples, Energy, and Telecommunication Services show substantial underweighting, relative to their weights in the MSCI World Index. In addition, Materials and Information Technology show large overweighting, whereas Utilities and Financials show underweighting, relative to their weights in the MSCI Small Cap Index. The details of the historical evolution of sector and country weights and the number of securities are presented in Appendix A.

Exhibit 5: Sector Weight Differences: MSCI World Micro Cap Index vs. MSCI World Index and MSCI World Small Cap Index



Based on Index Data as of Dec 01, 2010

Risk and Performance Characteristics

The MSCI World Micro Cap Index has shown markedly different risk and performance characteristics compared to the MSCI World and MSCI World Small Cap Indices. Based on historical returns from December 31, 2007 to November 30, 2010 as seen in Exhibit 6, we can observe that the MSCI World Micro Cap Index outperformed the MSCI World Index by nearly 4% per annum and underperformed the MSCI World Small Cap Index by nearly 2 % per annum. The MSCI World Micro Cap Index had the worst performance across the different size segments in the global financial crisis in 2008, but it also posted the strongest recovery across different size segments in 2009. The MSCI World Micro Cap Index was also the most volatile size segment, based on realized volatility as seen in Exhibit 6. It is also striking to see the relative outperformance of Japanese micro cap securities in 2008 during the financial crisis (see Appendix I), when Japan's weight in the MSCI World Micro Cap Index increased from 18% to 31% at the expense of countries such as Australia, Canada, Hong Kong, and the USA. In addition, the MSCI World All Cap Index has outperformed the MSCI World IMI marginally in 2009 and 2010.

Exhibit 6: Risk and Return Characteristics across MSCI World Size Segments

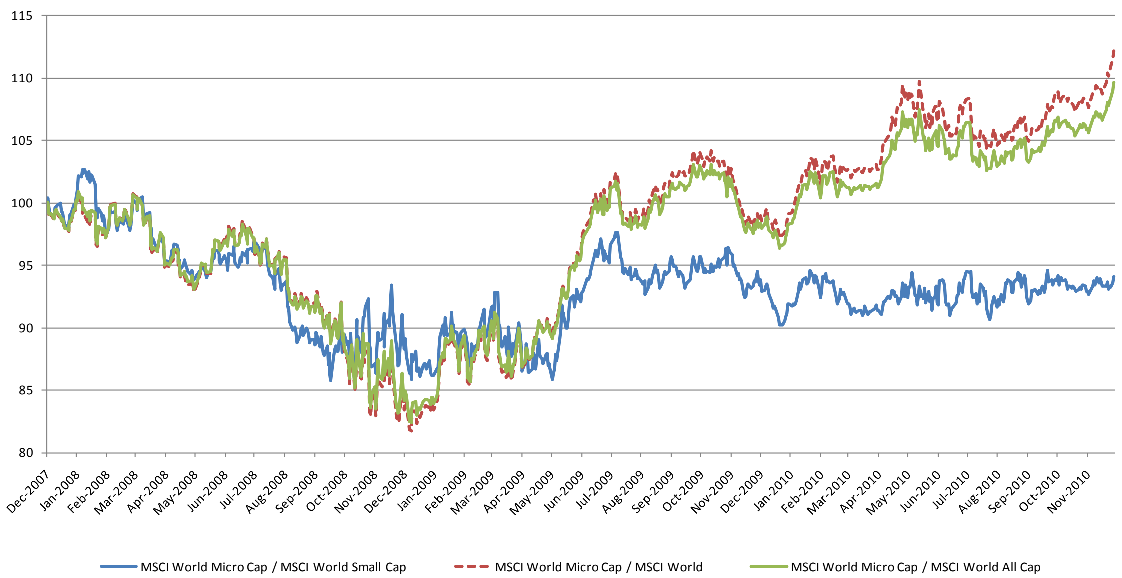
Year	MSCI World Standard	World Small Cap	MSCI World IMI	MSCI World Micro Cap	World All Cap
2008	-40.33%	-41.60%	-40.46%	-49.60%	-40.61%
2009	30.79%	44.75%	32.35%	54.33%	32.61%
2010	4.61%	15.67%	5.98%	18.42%	6.13%
Return*	-6.72%	-0.77%	-5.99%	-2.77%	-5.96%
Risk**	23.66%	27.27%	24.03%	27.80%	24.07%

* Annualized returns using DTR Index data between Dec 31, 2007 - Nov 30, 2010

** Annualized standard deviation of Monthly returns

Exhibit 7 shows the performance of the MSCI World Micro Cap Index relative to the MSCI World and MSCI World Small Cap Indices. The MSCI World Micro Cap Index has outperformed the MSCI World Index and the MSCI World Small Cap Index, after the financial crisis, from May 2009 to November 2010.

Exhibit 7: Relative Performance of MSCI World Micro Cap vs. MSCI World Small Cap, MSCI World and MSCI World All Cap Indices



Based on historical MSCI World All Cap Index data from December 3, 2007 – November 30, 2010.

Micro Cap Securities and the Investment Process

The definition of the investment opportunity set is a critical consideration for asset owners. With the continued evolution of global equity markets and investment processes, a few large asset owners have expressed a preference for a much deeper opportunity set that goes beyond the traditional investable equity universe by covering micro cap securities.

While micro cap securities expand the investment opportunity set for investors, they represent a distinct segment with unique characteristics such as lower market capitalization, lower liquidity and marginally higher volatility compared to their large, mid and small cap counterparts. Micro cap securities also tend to be less followed and are under-researched by institutional investors due to several investability constraints and investment preferences. Analyst coverage of micro cap securities tends to only grow gradually as these firms grow.

Furthermore, to avoid capacity issues with growth in assets under management, institutional small cap managers may prefer to include relatively larger small cap securities in their portfolios at the expense of micro cap securities.

The “Neglected Firm” effect is a potential explanation for the risk premium that micro cap securities may offer as compensation for lack of information and low analyst coverage (Arbel, et al 1983). In addition, the risk premium of the micro cap segment could also be attributed to the “Liquidity Premium” effect (Ibbotson, et al, 2010). However, investors in micro cap securities could potentially incur higher transaction costs and experience higher stock volatility on account of illiquidity and information risks.

Traditionally, investing in the micro cap segment has been addressed through specialized funds that have a dedicated investment process to track and analyze this diverse opportunity set. Due to higher stock specific risks and the less global nature of the micro cap segment, investors in micro cap funds typically rely on managers with local knowledge and specialized skills in security selection. Many of these funds focus exclusively on the micro cap segment, whereas the others target the micro cap segment within all cap portfolios.

Suitable benchmarks for the micro cap segment are vital for evaluating the performance of micro cap managers. Often, micro cap managers tend to be lumped with small cap manager universes for performance measurement even though the performance characteristics of the micro cap segment can be quite distinct from that of the small cap segment. In this regard, indices that provide a consistent coverage of micro cap securities while addressing the trade-offs between deeper coverage and lower yet reasonable size and liquidity thresholds for the micro cap segment could help address the evolving need for relevant benchmarks and performance measurement tools expressed by asset owners and asset managers.

Conclusion

Micro cap securities represent a dynamic and evolving segment of the global equity landscape. The universe of these securities is vast and is characterized by relatively lower float market capitalization and lower liquidity. In addition, with relatively lower analyst coverage, the micro cap segment is typically subject to the “Neglected Firm” and the “Liquidity Premium” effects, which may explain any risk premium associated with the micro cap segment.

Although micro cap securities may be perceived as more risky compared to their large cap counterparts, they have differentiated performance characteristics from other size segments and may provide an opportunity for portfolio diversification. The inclusion of the micro cap segment within MSCI All Cap Indices nearly doubles the investment opportunity set for investors and can help to address the evolving needs of global investors.

References

1. Arbel, Avner, Carwell, Steven, Strebel, Paul, “Giraffes, Institutions and Neglected Firms,” Financial Analysts Journal, May-June, 1983.

2. Ibbotson, Roger G., Chen Zhiwu, Hu, Wendy Y.,” Liquidity as an Investment Style,” Zebra Capital Management LLC, September 2010.

3. Kilbert, Marc, Aylur Subramanian, Raman, “Revisiting Global Small Caps,” MSCI Research Insight, July 2010.

4. Kang, Xiaowei, Nielsen, Frank, Fachinotti, Giacomo, “New Classic’ Equity Allocation?” MSCI Research Insight, October 2010.

5. MSCI Global Investable Market Indices Methodology, MSCI, November 2010.

Appendix A

Historical Sector Weights of MSCI World Micro Cap Index

Sector	Nov 2007	Nov 2008	Nov 2009	Dec 2010
Industrials	19.12%	19.96%	18.40%	17.27%
Information Technology	16.33%	16.79%	15.63%	15.76%
Materials	12.57%	9.75%	13.53%	15.44%
Consumer Discretionary	14.19%	15.94%	14.94%	14.85%
Financials	15.94%	15.13%	15.16%	13.61%
Health Care	10.40%	9.95%	9.61%	9.47%
Energy	5.47%	4.85%	5.70%	7.10%
Consumer Staples	4.06%	5.32%	4.94%	4.50%
Utilities	1.15%	1.46%	1.32%	1.10%
Telecommunication Services	0.77%	0.85%	0.76%	0.88%
Total	100.00%	100.00%	100.00%	100.00%

Based on historical data from Nov 2007 - May 2010 and Index data as of Dec 01, 2010

Historical Country Weights of MSCI World Micro Cap Index

Country	Nov-2007		Nov-2008		Nov-2009		Dec-2010	
	Mcap weight	# Numsec	Mcap weight	# Numsec	Mcap weight	# Numsec	Mcap weight	# Numsec
USA	30.69%	1,228	29.09%	1,236	22.78%	1,136	24.40%	950
Japan	19.40%	1,441	29.99%	1,532	23.14%	1,530	21.27%	1,312
Canada	8.52%	281	6.72%	334	10.26%	346	14.65%	348
Australia	10.98%	392	5.89%	374	11.20%	447	9.47%	367
United Kingdom	7.36%	240	6.58%	322	7.54%	359	7.03%	314
Hong Kong	4.45%	261	2.62%	271	4.75%	323	5.16%	306
Germany	2.92%	151	2.94%	179	3.12%	187	2.63%	182
Singapore	2.34%	168	2.10%	205	3.88%	248	3.52%	250
France	2.47%	120	2.87%	164	2.91%	171	2.27%	159
Sweden	1.98%	85	2.33%	118	2.28%	114	1.90%	111
Italy	1.30%	78	1.30%	96	1.12%	101	0.73%	89
Switzerland	1.31%	41	1.21%	39	0.98%	39	0.64%	32
Norway	1.14%	48	1.12%	69	1.12%	72	0.90%	53
Denmark	1.00%	37	1.03%	48	0.94%	51	0.73%	34
Greece	0.92%	47	0.82%	70	0.62%	72	0.28%	38
Finland	0.89%	38	0.88%	40	0.71%	37	0.50%	35
New Zealand	0.54%	21	0.63%	28	0.82%	32	1.03%	31
Belgium	0.59%	31	0.49%	28	0.50%	32	0.41%	31
Netherlands	0.41%	18	0.58%	26	0.56%	27	0.32%	18
Spain	0.29%	14	0.30%	17	0.25%	16	0.28%	20
Israel							1.49%	125
Austria	0.20%	9	0.20%	18	0.20%	19	0.16%	12
Ireland	0.15%	5	0.15%	9	0.21%	10	0.15%	6
Portugal	0.16%	7	0.14%	7	0.11%	6	0.09%	7
Total	100%	4,761	100%	5,230	100%	5,375	100%	4,830

* Based on historical data from Nov 2007 - May 2010 and Index data as of Dec 01, 2010

Israel included in MSCI World from May 2010

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