May 2023

Karan S. Sodhi, CFA
Portfolio Manager

Spencer Morgan, CFA
Portfolio Manager

Donald E. Perks
Quantitative Analyst

A case for active non-U.S. small-cap equity

In this paper, we offer quantitative analysis that builds a case for a long-term allocation to non-U.S. small-cap equity. We are often asked by consultants and institutional investors why they should allocate to non-U.S. small-cap strategies. Conventional wisdom is that the S&P 500 Index and Russell 2000 Index have consistently outperformed their non-U.S. counterparts, and that this can continue indefinitely.

We offer a different analysis. Using 22 years of data (2000–2023), we compare non-U.S. small-cap equity with three other asset classes that are common long-term allocations: U.S. small-cap equity, non-U.S. large-cap equity, and U.S. large-cap equity. We decompose total return to separate changes in valuation while focusing on fundamental returns, which are defined as the sum of free cash flow growth and dividend yield.

Not only does our research build a case for making an investment in non-U.S. small-cap equity, it shows the current free cash flow valuation spread is at a level that in the past has proven to be an especially compelling entry point, and that active managers have an opportunity for outperformance.

Specifically, our analysis demonstrates that non-U.S. small-cap equity has historically offered:

1. The highest annualized fundamental returns in terms of free cash flow growth + dividend yield
2. A high probability of forward three-year outperformance when valuation spreads versus U.S. large-cap equity are positive, as they are in mid-2023
3. Earnings that are non-correlated with other equity asset classes
4. The largest return dispersion among equity asset classes, which is an attractive backdrop for active management
5. An inefficient universe, with potential for active managers to outperform indexes

In the following analysis, we use indexes to represent the asset classes: the S&P Developed ex-U.S. Small Cap Index for non-U.S. small-cap equity, the MSCI EAFE Index for non-U.S. large-cap equity, the S&P 500 Index for U.S. large-cap equity, and the Russell 2000 Index for U.S. small-cap equity.

Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses.

REASON 1: Highest fundamental returns over 22 years

In contrast to conventional thinking, non-U.S. small-cap stocks have an attractive performance record compared with more widely held asset classes.

Non-U.S. small caps produced annualized total returns of 7.15% over the past 22 years, near the levels of U.S. large caps and small caps. When we decompose returns to understand the drivers of performance, we see even more impressive results.

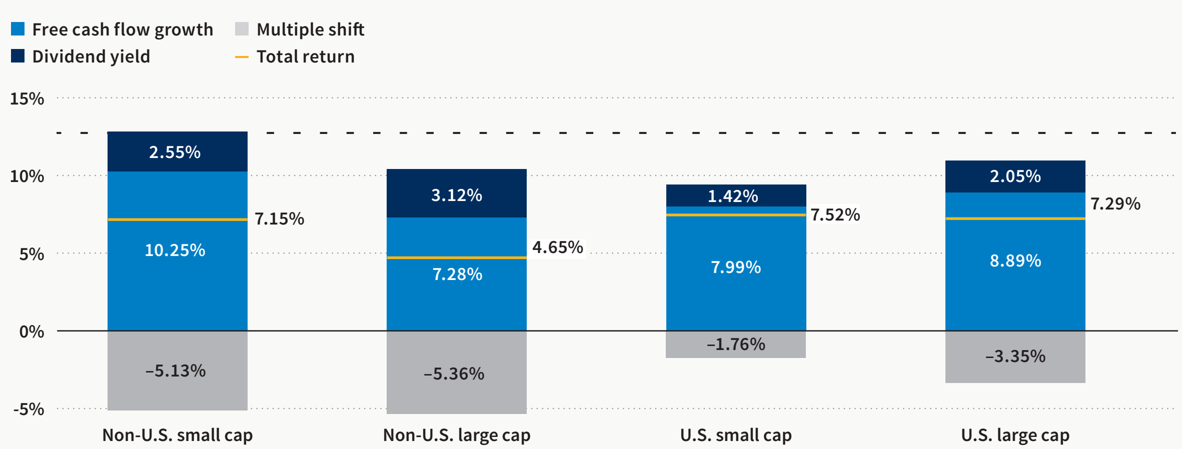
The three key drivers for the decomposed returns are free cash flow growth, dividend yield, and changes in valuation (defined as the price-to-free cash flow multiple). We believe the sum of free cash flow growth and dividend yield is the most appropriate way to measure the fundamental returns of each asset class, because these drivers have tended to be more sustainable over the long term. Based on these drivers, the fundamental return of non-U.S. small caps was 12.8% versus 9.4% for U.S. small caps, 10.9% for U.S. large caps, and 10.4% for non-U.S. large caps. In contrast, changes in valuation have historically tended to be mean reverting over time. Exhibit 1 demonstrates that the sum of free cash flow growth and dividend yield was highest for non-U.S. small-cap equity. This fundamental outperformance was masked by a relative decline in its price-to-free cash flow multiple — a headwind that we believe is unlikely to persist.

Looking ahead, we are optimistic for non-U.S. small caps because we believe the growth from free cash flow and dividends will continue being sustainable, while the compression in valuation will be less so and may even reverse, becoming additive to overall returns going forward.

EXHIBIT 1

Non-U.S. small caps had the highest fundamental returns of all four asset classes

Decomposition of total returns since 2000



Sources: Putnam, Worldscope, IDC Pricing, Bloomberg. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index.

Data from December 31, 2000, through March 31, 2023. Fundamental returns are defined as the sum of free cash flow growth and dividend yield. Free cash flow growth is defined as the annualized growth in free cash flow over the 22-year period. Dividend yield is defined as the difference between annualized total return and annualized price return. Multiple shift is defined as the annualized growth in the price-to-free cash flow multiple. Total return is defined as the annualized total return (USD). Amounts shown in bar graph might not sum due to rounding.

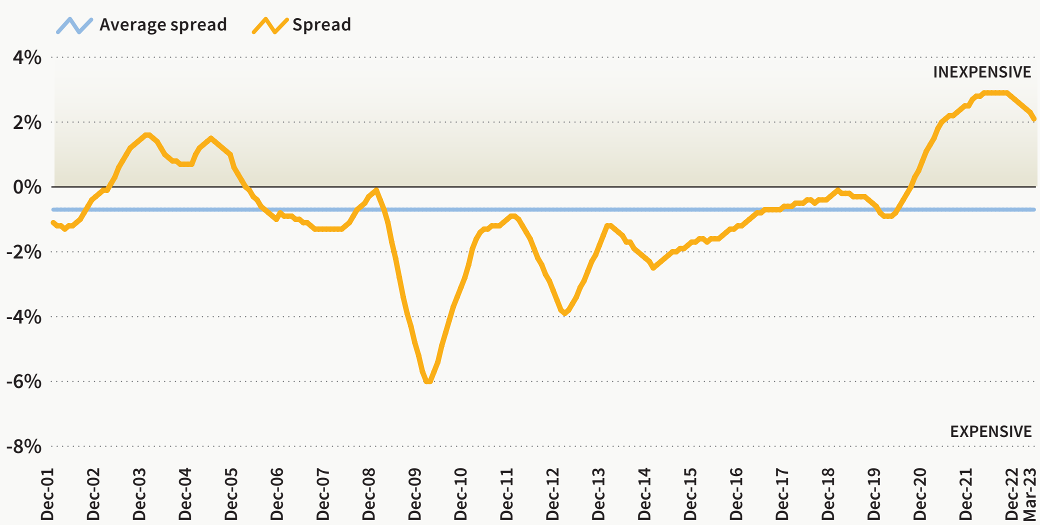
REASON 2: High probability of outperformance when signaled by wide valuation spreads versus U.S. large caps

Non-U.S. small caps offer more than attractive historical long-term returns; we believe they also currently have compelling valuations relative to the other asset classes. When we look at valuations based on price-to-free cash flow, the spread between the multiples of non-U.S. small caps and U.S. large caps is in the top decile of its range over the past 22 years (Exhibit 2). As shown subsequently, when spreads were at similar wide levels in the past, investing in non-U.S. small caps has led to outperformance over the following three years.

EXHIBIT 2

The price-to-free cash flow multiple of non-U.S. small caps versus U.S. large caps is in the top decile of attractiveness

Rolling average annual spread of free cash flow/market value between non-U.S. small cap and U.S. large cap since December 2000



Non-U.S. small-cap valuations are currently attractive relative to history and relative to other market segments

	Price/free cash flow			
Date	**Non-U.S. small cap**	**U.S. small cap**	**Non-U.S. large cap**	**U.S. large cap**
12/31/2000	44.0	39.0	36.3	41.2
3/31/2023	13.6	26.3	10.7	19.3

Sources: Putnam, Worldscope, IDC Pricing. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index.

Data from December 31, 2000, through March 31, 2023. Non-U.S. small cap is represented by the S&P Developed ex-U.S. Small Cap Index; U.S. large cap is represented by the S&P 500. Valuation aggregates are winsorized, size-weighted harmonic means. Total returns are in U.S. dollars, annualized over three years to represent a buy-and-hold strategy.

In the past 22 years, there have been 15 periods where spreads were similar to their levels today, and for 13 of those periods, non-U.S. small caps subsequently outperformed the other three asset classes over the subsequent three years (Exhibits 3 and 4).

EXHIBIT 3

In 87% of periods (13 of 15) since 2000, when price-to-free cash flow relative valuations were at similar levels, non-U.S. small caps outperformed over the following three years

Positive free cash flow/market value spreads between non-U.S. small caps and U.S. large caps since December 2000, along with annualized forward 3-year returns by asset class

Highest annualized relative forward 3-year return

Start date	Spread of free cash flow to market value	Annualized forward 3-year return: Non-U.S. small cap	U.S. small cap	Non-U.S. large cap	U.S. large cap
6/30/03	2.8%	**31.7%**	18.7%	24.4%	11.2%
9/30/03	1.7%	**27.8%**	15.5%	22.8%	12.3%
3/31/03	1.6%	**41.6%**	29.5%	31.7%	17.2%
12/31/04	1.5%	**19.3%**	6.8%	17.3%	8.6%
6/30/04	1.4%	**27.7%**	13.4%	22.7%	11.7%
12/31/03	1.4%	**26.7%**	13.6%	20.4%	10.4%
3/31/05	1.3%	**15.0%**	5.1%	13.8%	5.9%
9/30/04	1.2%	**27.5%**	13.4%	23.7%	13.1%
6/30/05	0.7%	**14.0%**	3.8%	13.3%	4.4%
3/31/20	0.3%	13.7%	17.5%	13.5%	**18.6%**
6/30/08	0.2%	2.8%	**7.8%**	-1.3%	3.3%
12/31/02	0.1%	**34.2%**	22.1%	24.2%	14.4%
3/31/04	0.0%	**25.6%**	12.0%	20.3%	10.1%
9/30/02	0.0%	**33.1%**	24.1%	25.1%	16.7%
9/30/05	0.0%	0.6%	**1.8%**	1.6%	0.2%
Average return when spread is positive	0.9%	**22.7%**	13.7%	18.2%	10.5%

As of 3/31/23, the spread of free cash flow to market value was 0.80%.

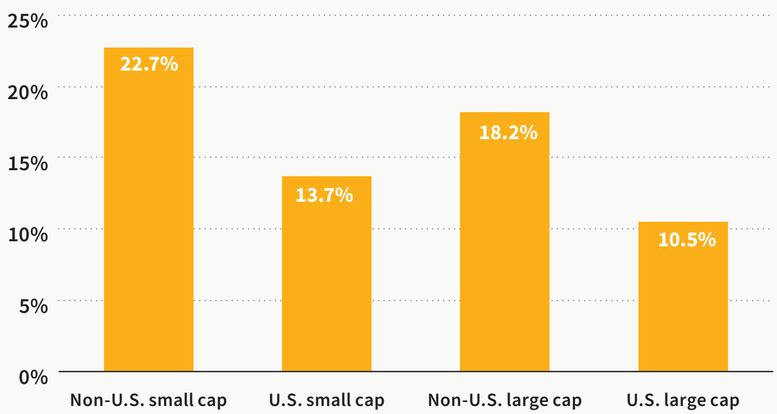
Sources: Putnam, Worldscope, IDC Pricing. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index.

Data from December 31, 2000, through March 31, 2023. Top quintile of quarterly periods (15) when the spread between non-U.S. small cap and U.S. large cap is positive. Spread is defined as free cash flow/market value of non-U.S. small cap minus U.S. large cap. Returns are annualized forward three-year buy and hold, total returns in U.S. dollars. Non-U.S. small cap is represented by the S&P Developed ex-U.S. Small Cap Index; U.S. small cap is represented by the Russell 2000 Index; Non-U.S. large cap is represented by the MSCI EAFE Index; and U.S. large cap is represented by the S&P 500 Index. Valuation aggregates are winsorized, size-weighted harmonic means.

EXHIBIT 4

Average returns in three-year periods after widening of valuation gap show non-U.S. small-cap outperformance

Average forward three-year returns when non-U.S. small-cap equity was cheapest versus U.S. large-cap equity since December 2000



Sources: Putnam, Worldscope, IDC Pricing. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index.

Data from December 31, 2000, through March 31, 2023. Top quintile of quarterly periods (15) when the spread between non-U.S. small cap and U.S. large cap is widest. Spread is defined as free cash flow/market value of non-U.S. small cap minus U.S. large cap. Returns are annualized forward three-year buy and hold, total returns in U.S. dollars. Non-U.S. small cap is represented by the S&P Developed ex-U.S. Small Cap Index; U.S. small cap is represented by the Russell 2000 Index; Non-U.S. large cap is represented by the MSCI EAFE Index; and U.S. large cap is represented by the S&P 500. Valuation aggregates are winsorized, size-weighted harmonic means.

REASON 3: Earnings that are non-correlated with other equity asset classes

We believe another key component of the case favoring non-U.S. small caps is their attractive diversification. In brief, non-U.S. small caps offer exposure to a different source of earnings because the companies operate in different macroeconomic environments and serve different customers. This can be seen through earnings correlations. The first part of Exhibit 5 shows a summary of industry pairwise earnings correlations. Non-U.S. small-cap equity industry earnings appear to move much more independently of the others, with low levels of correlation versus all other asset classes.

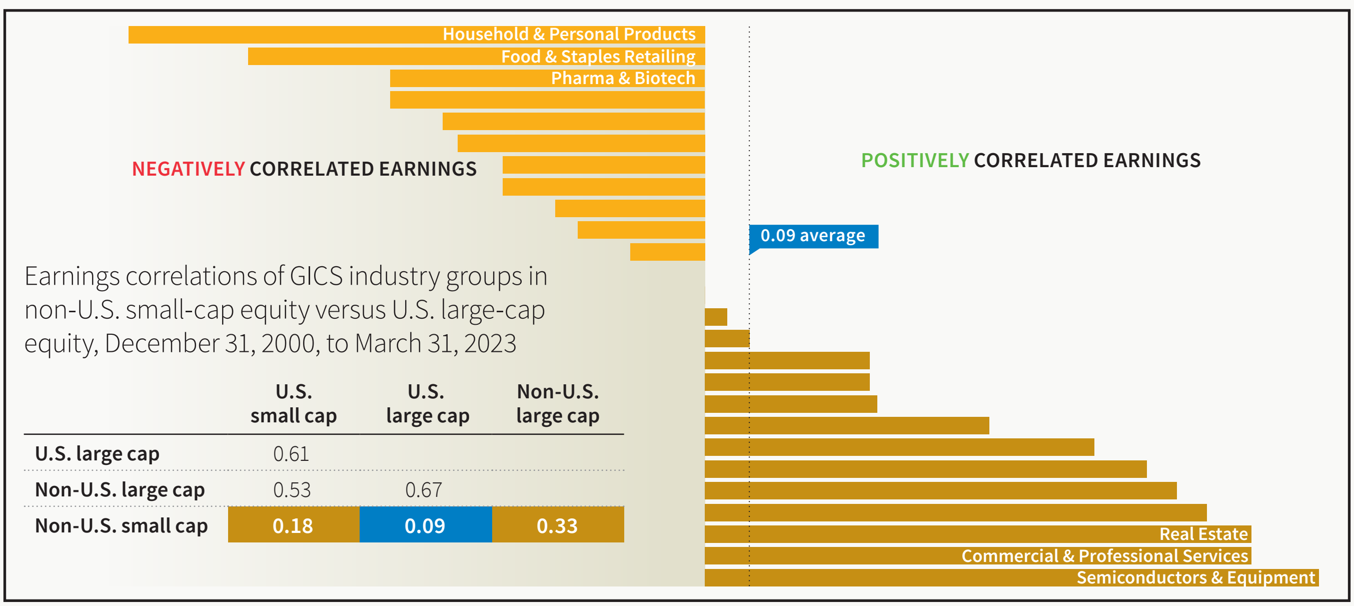
We believe this attribute demonstrates "fundamental diversity" and indicates that non-U.S. small-cap equity can help to smooth out returns for portfolios that include an allocation to the asset class.

The second part of Exhibit 5 shows correlations in greater detail, by industry sector. The average correlation is a low 0.09, and in a large portion of the industry sectors, the earnings correlation of small and large caps is negative. Contrast this to U.S. large-cap and non-U.S. large-cap earnings, which have a meaningful correlation at 0.67, or to U.S. large- and U.S. small-cap earnings, which are also correlated at 0.61.

EXHIBIT 5

Non-U.S. small-cap equity has low earnings correlations between industry groups across select markets

Average pairwise earnings correlations between GICS industry groups across four asset classes
December 31, 2000, to March 31, 2023



Earnings correlations of GICS industry groups in non-U.S. small-cap equity versus U.S. large-cap equity, December 31, 2000, to March 31, 2023

	U.S. small cap	U.S. large cap	Non-U.S. large cap
U.S. large cap	0.61		
Non-U.S. large cap	0.53	0.67	
Non-U.S. small cap	0.18	0.09	0.33

Sources: IDC, Putnam.

Data from December 31, 2000, through March 31, 2023. The average pairwise earnings correlations between each pair of asset classes is calculated using the aggregate reported fiscal earnings within each GICS industry group each month for the past 22 years for each of the four asset classes. The Global Industry Classification Standard (GICS) is a system for categorizing every public company by economic sector and industry group developed by MSCI and S&P Dow Jones Indices. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index. Diversification does not assure a profit or protect against loss.

REASON 4: The largest return dispersion among equity asset classes

Return dispersion is an important metric for active managers. It measures the performance variability of stocks within an asset class.

In comparing the four asset classes, non-U.S. small-cap equity displays the highest return dispersion in 17 of 22 years observed. This means it offers more potential opportunities for outperformance to active managers skilled in security selection.

EXHIBIT 6

Non-U.S. small-cap equity had highest return dispersion in 17 of the past 22 years

Forward one-year return dispersion by asset class, December 31, 2000, to March 31, 2023

Largest return dispersion during the year

Year	Non-U.S. small cap	U.S. small cap	Non U.S. large cap	U.S. large cap
2001	45%	**72%**	29%	38%
2002	43%	**46%**	33%	27%
2003	74%	**80%**	44%	43%
2004	**48%**	41%	33%	28%
2005	**77%**	36%	31%	25%
2006	**59%**	38%	39%	23%
2007	**50%**	39%	37%	35%
2008	35%	**42%**	29%	24%
2009	**83%**	81%	55%	56%
2010	**64%**	46%	29%	27%
2011	**41%**	33%	24%	24%
2012	**54%**	43%	28%	25%
2013	**70%**	56%	38%	32%
2014	**59%**	39%	23%	22%
2015	**70%**	35%	25%	25%
2016	**55%**	46%	25%	24%
2017	**59%**	46%	27%	26%
2018	**48%**	37%	20%	22%
2019	**49%**	43%	26%	25%
2020	52%	**61%**	29%	31%
2021	**58%**	55%	55%	56%
2022	**35%**	34%	31%	28%

22 years	Non-U.S. small cap	U.S. small cap	Non-U.S. large cap	U.S. large cap
Average	56%	48%	32%	30%
Most disperse	17/22	5/22	0/22	0/22

Non-U.S. small cap had the widest return dispersion in the majority of the past 22 years — offering greater opportunity for active managers.

Sources: Putnam, Bloomberg. Past performance is not a guarantee of future results. Indexes are not managed and do not incur expenses. You cannot invest directly in an index.

Data from December 31, 2000, through March 31, 2023. Annual return dispersion of all of the index names at the start of each calendar year. Dispersion is defined as standard deviation of the total return in U.S. dollars. Non-U.S. small cap is represented by the S&P Developed ex-U.S. Small Cap Index; U.S. small cap is represented by the Russell 2000 Index; non-U.S. large cap is represented by the MSCI EAFE Index; and U.S. large cap is represented by the S&P 500.

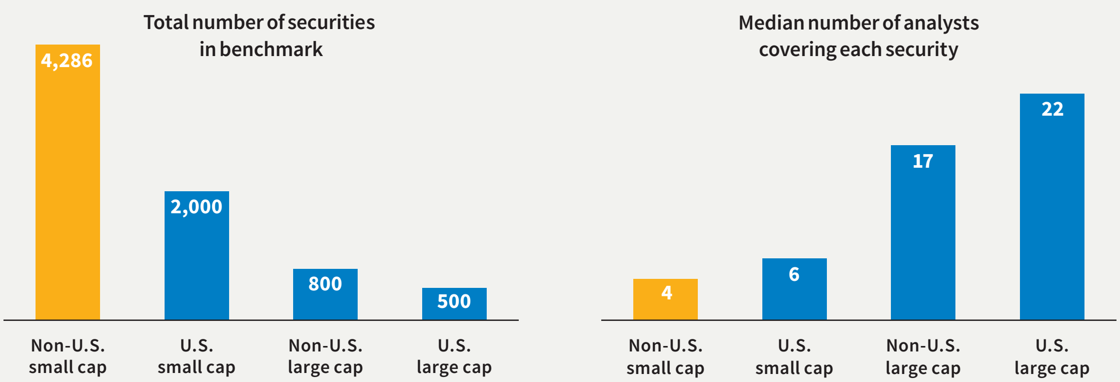
REASON 5: An inefficient universe, with potential for active managers to outperform indexes

Charlie Munger, Vice Chair of Berkshire Hathaway, once offered advice to a group of investors: “The first rule of fishing is to fish where the fish are. Some places have lots of fish, and you don’t have to be a good fisherman to do pretty well. Other places are so heavily fished that no matter how good a fisherman you are, you aren’t going to do very well.” We believe non-U.S. small cap offers one of the best ponds for active managers to fish in. It is an inefficient universe, with a median of four sell-side analysts covering each stock, compared with a median of 22 analysts covering U.S. large caps. At the same time, it has a wider variety of opportunities and regions, with thousands more stocks than the S&P 500 Index or the Russell 1000 Index.

EXHIBIT 7

Lack of analyst coverage makes the non-U.S. small-cap universe less efficient

The non-U.S. small-cap universe has the most stocks and fewest analysts per stock



Source: Bloomberg. Data as of March 31, 2023.

Conclusion

In summary, non-U.S. small-cap stocks have historically delivered the highest fundamental returns (the sum of free cash flow growth and dividend yield) of the four major asset classes in the period we reviewed, from December 31, 2000, to March 31, 2023. Moreover, valuation spreads are currently in the cheapest decile relative to history, which we believe improves the odds of competitive prospective returns for investments made today. Finally, non-U.S. small-cap equity offers the potential for diversification benefits, higher return dispersions, and a large and inefficient universe. We believe these characteristics improve the potential for outperformance on the part of fundamental active managers.

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