

Implementation Insight

Small Cap:

Old Questions, New Answers

January 2019



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Why read on?

Among pension funds and other asset owners, the appetite for small cap appears to be on the rise.

The past year has seen notably greater interest in small cap equity strategies - either regional or global - from institutional investors that work with bfinance.

The underlying motivations for seeking small cap are evolving. While the academic and investment communities have become somewhat sceptical about the so-called "size premium," allocators are instead looking towards small cap to complement and diversify their existing exposures, seeking stronger risk-adjusted returns over the long-term.

Looking globally, pension funds and other asset owners are structurally under-allocated to small cap equities. This lack of exposure has been reinforced by two key trends of the past decade: the move from regional towards global equity strategies and the shift towards passive investment. Based on our search activity, active global equity managers have median small cap exposure of less than 5% (defined as market cap <\$2.5bn), and many of these strategies have no small cap allocation at all.

The characteristics of small cap investment, both on a standalone basis and in comparison with the relevant large/mid cap market, vary significantly by geography. There are also considerable differences between the performance and risk profile that can be delivered by an actively managed strategy versus the relevant small cap index, and these differences also vary by region.

Within the small cap landscape, one group of strategies has gained ground significantly: "global small cap" strategies. To some extent, these can be viewed as a natural complement to the aforementioned global equity mandates that are increasingly employed by asset allocators. This paper presents data from recent and ongoing global small cap manager searches conducted by bfinance to provide insight into this particular subset of the universe.

Investors should carefully consider whether global or regional approaches to small cap represent the optimal approach for their portfolios. In doing so, it is important to remember that the best path may be determined not purely by theory or examination of the indices but by the appropriateness and attractiveness of solutions available in the market today.



From risk premium to risk diversification: the changing case for small cap

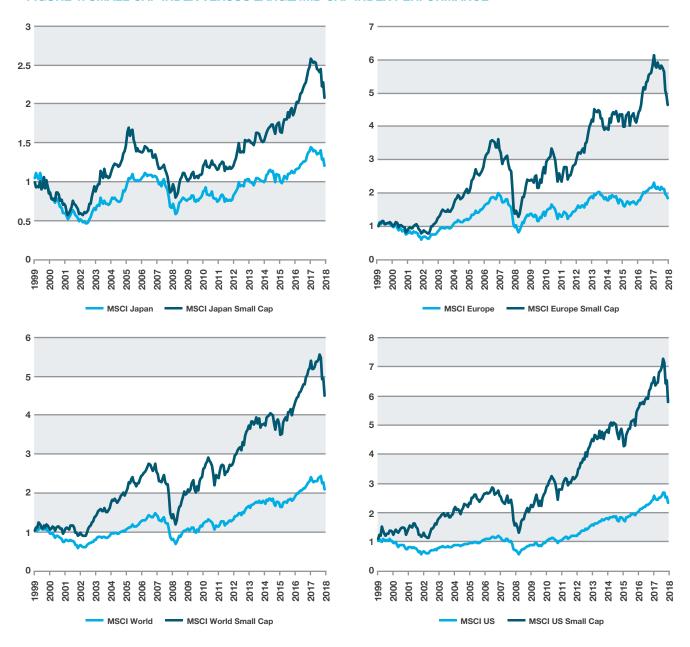
Few risk premia have as illustrious – and controversial – a history as size.

One of the three factors used in the Fama/French Three Factor Model alongside 'value' and 'market,' it has been the subject of more academic papers than any other member of the factor family. Many of these were produced in the 1980s, beginning with Rolf Banz's seminal article in 1981. In the face of data which appeared to suggest that a size premium did

exist, theories were propounded for why it should exist. These included the pricing inefficiencies which can result from limited analyst coverage, lower liquidity and the supposedly easier growth trajectory.

At first glance, before adjusting for risk or for the various style premia, small cap indices have outperformed large/mid cap indices since 2000 on both a global and a regional basis (see charts below).

FIGURE 1: SMALL CAP INDEX VERSUS LARGE/MID CAP INDEX PERFORMANCE



Source: Bloomberg. All figures are Total Return in US\$ to 31 December 2018.

The evidence for a passive "size premium" has now been extensively unpicked.

More recently, robust academic and industry studies have concluded that the size effect is statistically insignificant once the data has been adjusted for beta, and even more so when other now-popular analytical methods are applied such as style regressions. What remains is undermined by the greater illiquidity and higher trading costs involved. In addition, unlike other premia such as value and momentum, no evidence has been found for the size effect in other asset classes such as corporate bonds.

That being said, certain papers (such as Size Matters... Asness 2018) have argued that a statistically significant size premium resurfaces once indices are regressed against the quality factor. Our independent research does appear to support this argument. We find that the size factor loads very significantly and negatively on the quality factor, and that the addition of the quality factor not only raises the average return to size significantly but also increases the precision of the size premium (QMJ explains a substantial fraction of the variation in SMB's returns).

Alongside these debates about indices, it is important – perhaps more important – to keep an eye on the performance of small cap managers.

Among active managers we can find considerably more compelling results. That being said, performance relative to the relevant small cap indices varies considerably by region. In Australia, for example, 100% of active small cap managers in the eVestment database have outperformed the MSCI Australia Small Cap index over ten years and the median performer generated average outperformance of 7.4% per year.

Yet investors should seek a clear understanding of the sources of such outperformance. In the case of Australia, impressive figures have often been facilitated by macro-led or cyclical bets, such as the degree of exposure to commodity-related sectors through periods of stronger and weaker prices. Looking at various international markets, we find that a significant number of active small cap managers have boosted relative returns by adding exposure to mid-cap stocks – an approach that some investors are more comfortable with than others.

FIGURE 2: PERFORMANCE OF AUSTRALIAN SMALL CAP EQUITY MANAGERS RELATIVE TO THE MSCI **AUSTRALIA SMALL CAP INDEX**

	5 Years	7 Years	10 Years
5th Percentile	14.3	13.0	14.5
25th Percentile	6.0	7.8	8.7
Median	4.1	6.3	7.4
75th Percentile	1.7	3.6	5.5
95th Percentile	-2.5	0.2	2.6

	5 Years	7 Years	10 Years
# of Managers with Track Record of Sufficient Length	42	39	31
# of Managers Outperforming	35	37	31
% of Managers Outperforming	83%	95%	100%

Source: bfinance, eVestment. All figures in AU\$, annualised, to 30 September 2018.



From risk premium to risk diversification: the changing case for small cap continued

Pension funds and endowments today tend to be structurally underinvested in small cap equities.

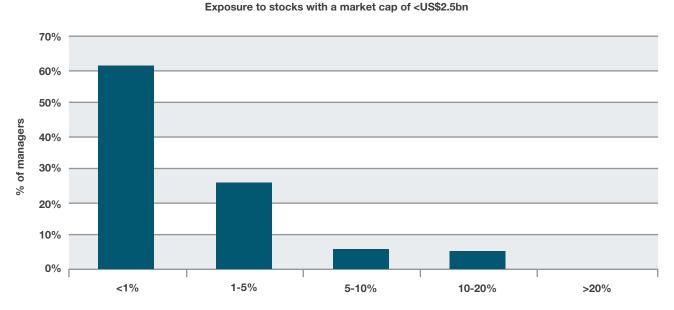
Under-investment in small caps has been reinforced, and to some extent exacerbated, by two of the most notable equity investment trends of the past decade: the shift from regional towards global mandates and the shift towards passive management.

Within actively managed global equity funds, we tend to find small cap stocks either absent or representing a minimal slice of portfolios. In one of our most recent Global Equity manager searches, the median exposure to small cap stocks (<\$2.5 billion market cap) among a group of more than 100 managers was less than 5% (see Figure 3) and more than a quarter of these managers invested less than 1%.

For investors using passive global broad market indices, small cap exposure will be largely absent unless the institution has specifically decided to implement an investment in a small cap strategy or index. Where investors do have additional small cap exposure, it is frequently confined to the domestic market, particularly for institutions in the US and Australia.

During the recent extended bull run, strong equity market returns have been somewhat reliant on a relatively modest number of large cap stocks. With this in mind, investors have sought to broaden the drivers of return within equity portfolios through geographical and strategic diversification. This priority is helping to drive and shape demand for small cap.

FIGURE 3: EXPOSURE TO SMALL CAP STOCKS AMONG ACTIVE GLOBAL EQUITY FUNDS



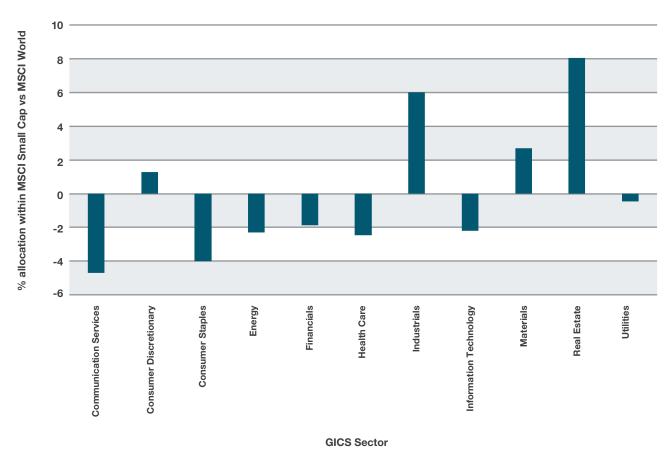
Source: bfinance manager research, 2018. Includes data from >100 active global equity funds.

For today's investors, adding small cap is not necessarily about capturing a "size premium" but delivering a robust, well-diversified portfolio.

When considering the diversifying characteristics that small cap investment may offer relative to large/mid cap stocks, it is important to pay attention to the differences between the various international small cap markets. Small caps in Japan, for example, are relatively insulated from the "tourism effect" exhibited by large/mid caps in this market, wherein foreign investors flow strongly in and out at certain periods (such as when executing currency plays), due to the far lower involvement of international investors in the small cap segment.

One source of performance differentiation between large/mid cap and small cap indices is the significant difference in sector exposures. While small cap investors can benefit from the opportunity to access different types of business with different return drivers, we should be cognisant of the extent to which outperformance or underperformance may represent a sector bet in disguise. As shown in the chart below, the MSCI World Small Cap Index currently contains a stronger weighting towards Industrials, Real Estate and Materials than the MSCI World Index, with somewhat less in Consumer Staples and Communication Services.

FIGURE 4: DIFFERENCES IN SECTOR WEIGHTING FOR MSCI WORLD SMALL CAP VS. MSCI WORLD



Source: Bloomberg, bfinance at December 2018

From risk premium to risk diversification: the changing case for small cap continued

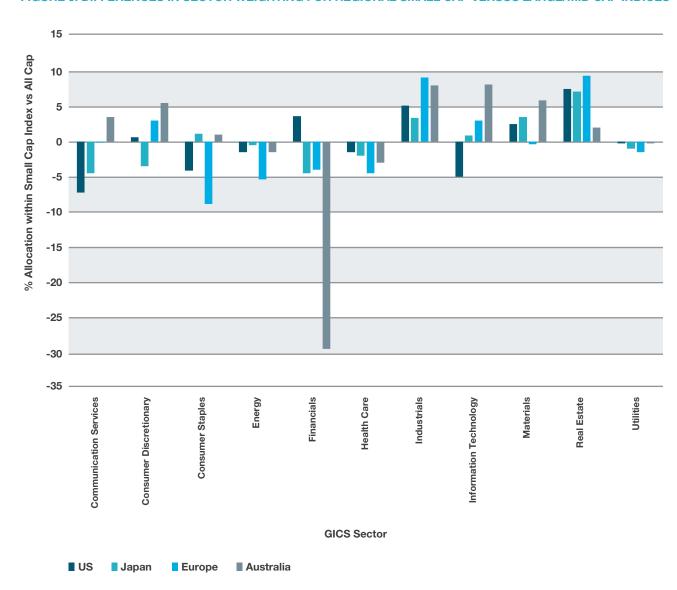
The subject of sector exposure further highlights the geographical differences in small cap markets relative to large/mid-caps.

In Australia, the Consumer Discretionary segment represents 11.1% of the MSCI Australia Small Cap Index but only 5.6% of the MSCI Australia Index; in Japan, conversely, the Consumer Discretionary weighting is higher in the MSCI Japan (19.1%) Index than in the MSCI Japan Small Cap Index (15.5%).

Financials, meanwhile, make up 13.2% of the MSCI USA Index and 16.8% of the MSCI USA Small Cap index, whereas financials in Australia are strongly skewed towards the mid and large cap end of the spectrum: the MSCI Australia index has a 38.4% weighting to this sector, while the small cap index has a weighting of less than 9%.

Of course, as discussed previously with respect to performance, the picture among active managers is very different.

FIGURE 5: DIFFERENCES IN SECTOR WEIGHTING FOR REGIONAL SMALL CAP VERSUS LARGE/MID CAP INDICES



Source: bfinance, Bloomberg at December 2018. Indices for US, Japan and Europe same as in Figure 1; indices for Australia are MSCI Australia Index and MSCI Australia Small Cap Index

Implementation choices and challenges

Investors complementing equity portfolios with small cap exposure face a set of portfolio design choices.

To some extent, these options mirror those available in large/mid cap equity investing: global versus regional, active versus passive, discretionary vs systematic and so forth. However, certain aspects of implementation can be more challenging on the small cap side, and those issues (as with so many of the previous points) vary significantly by geography.

As is so often the case, it is helpful to understand pragmatic considerations for implementation before formulating strategic decisions.

PASSIVE MANAGEMENT

Passive management in small cap can be problematic: greater illiquidity, higher trading costs and the sheer volume of stocks being traded (approximately 4200 in MSCI Small Cap versus 1650 in MSCI Global) create greater friction and leakage.

FEES

Fees are on the high side relative to global equity strategies. Based on our search activity, the median Australian small cap equity manager charges around 60bps on a \$100 million mandate; whereas the median US small cap equity manager is more expensive, around the 75-80bps mark. In comparison, fees for active global large/mid cap equity managers tend to come in around or under 50bps.

QUANTITATIVE APPROACHES

Quantitative approaches can be obstructed by the lower volume of analyst coverage per stock, although this data restriction is significantly more evident in some small cap markets than others. The majority of small cap managers are fundamental bottom-up stock pickers.

LANGUAGE BARRIERS

Language barriers can obstruct non-local managers in regions like Japan, where larger firms will produce English translations of corporate documentation but small firms often won't.

MANAGER CAPACITY

Manager capacity can be very restrictive in certain countries. In Australia, for example, a significant proportion of small cap equity funds tend to be closed to new investors at any one point in time. These capacity constraints vary significantly by region, and are reflected in average fund sizes: the median AuM of Australian small cap managers participating in recent bfinance searches is AU\$160 million versus US\$1 billion in US small cap and close to US\$1 billion in Japanese small cap.

PERFORMANCE DISPERSION

Performance dispersion tends to be higher among small cap managers than their large/mid cap-focused peers. In part, this is due to the larger number of stocks from which to choose, which helps to produce more substantial portfolio variation between different managers.



Global small cap managers: a closer look

During recent years, global small cap strategies have become more popular and widely available.

For investors that wish to invest in small cap globally, there are two main options: combining a number of regional strategies or investing in a "global small cap" strategy. While both of these approaches have received attention from bfinance clients of late, active global small cap funds have undergone a particularly significant expansion, with a rapid rise in the number of products of this type. We estimate that there are now more than 70 such strategies available, three times higher than the figure ten years ago. This trend has produced an increasingly credible universe of options for institutional investors to consider, although managers' track records are on average somewhat shorter than those in well-established regional small cap markets.

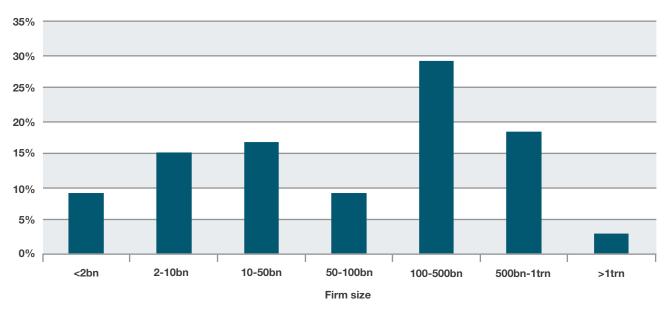
Focus on: firm size

Although many global small cap strategies are run by large global asset managers, there are plenty of smaller firms and boutiques in play. Nearly half of the relevant managers recently assessed by bfinance for clients in this strategy sit between the US\$100 billion and US\$1 trillion mark in terms of overall firm AUM, while just under a quarter have a total AuM below US\$10 billion.

Focus on: inter-product alignment

In many cases, the managers offering global small cap strategies are also offering one or more local small cap strategies covering at least one of the underlying markets. This can create challenges in terms of alignment, especially where that market may be capacity constrained. The investor should consider how decisions are being made for the global fund and the extent to which these represent an extension of local small cap strategy team picks or sit independently.

FIGURE 6: GLOBAL SMALL CAP MANAGERS, FIRM SIZE (US\$)



Source: bfinance manager selection research, January 2019

35% 30% 25% 20% 15% 10% 5% 0% 200-500m <100m 100-200m 500-1bn 1-4bn >4bn Strategy AUM

FIGURE 7: GLOBAL SMALL CAP MANAGERS, AUM IN GLOBAL SMALL CAP STRATEGY (US\$)

Source: bfinance manager selection research, January 2019

Focus on: investment approach

Global small cap products can be segmented by strategy and process, as shown in Figure 8 on the following page. These include fully systematic products (approximately 15% of global small cap managers assessed by bfinance), fundamental/ discretionary strategies (approximately two thirds of the group) and those using a combination of both (the remaining ~15% of managers).

Discretionary and systematic strategies bring their own distinct advantages and disadvantages. Data limitations do not only impede quantitative models, but also challenge global managers implementing small cap strategies that cover regions where they have weaker expertise.

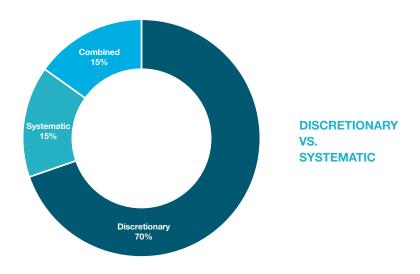
Looking at the group through a different lens, we find that the vast majority (>90%) employ a bottom-up portfolio construction approach, while just a handful can be described as having a top-down philosophy or a combination of both bottom-up and top-down construction.

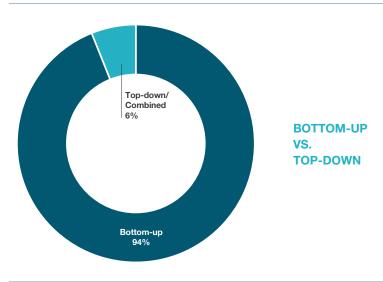
We also see a minority of global small cap strategies employing either growth or value styles, with a leaning towards growth, although the majority do not employ a style-based approach.

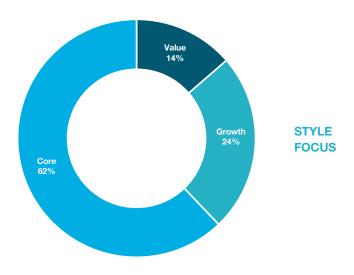


Global small cap managers: a closer look continued

FIGURE 8: GLOBAL SMALL CAP MANAGERS SEGMENTED BY STRATEGIC APPROACH







Source: bfinance manager selection research, January 2019

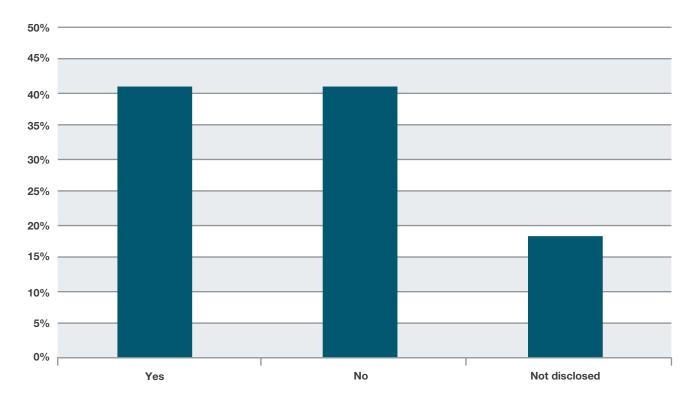
Focus on: ESG

The ESG-minded investor should be aware that only 41% of global small cap managers integrate ESG criteria into investment decision-making. A similar number say that they do not, and a further 18% do not state either way in response to information requests in RFPs.

To some extent, this relates to the origins of these global small cap strategies: many have their roots in the US small cap space, where the ESG theme has only recently begun to gain traction.

> "Only 41% of global small cap managers integrate ESG criteria"

FIGURE 9: DO YOU INTEGRATE ESG INTO YOUR INVESTMENT PROCESS?



Source: bfinance manager selection research, January 2019



Key takeaways

For today's investors, adding small cap is not necessarily about capturing a "size premium" but delivering a robust, well diversified portfolio. Pension funds tend to be structurally underinvested in small caps, particularly from a global standpoint.

When forming strategic decisions regarding small cap equity exposure, investors should pay attention to active manager performance and exposures. While analysis of indices (small cap versus large/mid cap) can help investors to form a view on the sector, the small cap manager universe offers a very different picture in terms of returns, volatility and exposures to various sectors and styles. These differences vary considerably by region.

Global small cap strategies have undergone significant expansion, with the number of active funds available to institutional investors trebling in the past decade to more than 70. This may offer an interesting alternative to more conventional regional strategies.



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Justin joined bfinance in 2014 from Buck Consultants where he was UK Head of Manager Research and Selection. He brings with him nearly two decades of equity manager research experience having previously worked at the Abu Dhabi Investment Authority, one of the world's largest sovereign wealth funds. At ADIA he helped establish the External Emerging Market Equities capability whilst running a number of multi-manager portfolios. Prior to joining ADIA Justin spent five years at Skandia Investment Group. Justin has an MSc in Investment Analysis from the University of Stirling and a BSc in Economics with Actuarial Studies from the University of Southampton.



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Robert is a Director within the Public Markets team, specialising in equity manager research. Robert joined bfinance in October 2015, having spent five years as a fund research analyst at private wealth management firm Saunderson House. Robert graduated from Cass Business School with a Masters in Investment Management and also holds a first class honours degree in Accounting & Finance from the University of Warwick. Robert has previous experience within the Private Client Services team of Ernst & Young LLP. Robert is a Chartered member of the Chartered Institute for Securities & Investment (CISI).

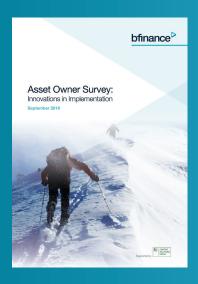
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