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Global small-caps:

An overlooked opportunity

June 2023

Executive summary

The size premium, defined as investing in smaller market cap companies relative to their larger counterparts, has been shown to harvest excess returns relative to market beta. The size premium is an extension of modern portfolio theory, supported by academics and empirical evidence.

A popular way for investors to gain exposure to the size premium is Australian small-caps, yet the asset class has consistently underperformed its large- and mid-cap counterparts, hamstrung by structural nuances.

Global small-caps, which is typically underrepresented in Australian investment portfolios has historically outperformed global large- and mid-caps as well as Australian small-caps over the long-term.

We show an alternative systematic way to invest in a diversified portfolio of global small-cap equities that has historically achieved excess returns over the long term, supported by research, offering defensive characteristics that Australian investors should consider in place of, or alongside, their Australian small-cap exposure.

The size premium

Modern portfolio theory as defined by the capital asset pricing model (CAPM) of William Sharpe (1964)[1] and John Lintner (1965)[2] states that portfolio returns come from two sources, the market beta and alpha. An investor's objective is to harness alpha, that is outperform market beta, the starting universe for constructing an investment portfolio.

CAPM formula

Portfolio return = Alpha $+ R_f +$ ***Beta*** *(Benchmark return –* R_f*)*

Where,
R_f = risk free rate
Market beta = Beta (Benchmark return – R_f*)*

One factor that has been shown to harness alpha is the size premium, investing in smaller market cap companies relative to their larger counterparts. The size premium was first supported by academic Banz in 1981[3], finding that "smaller firms (firms with low market capitalisation) have higher risk-adjusted returns than large firms on average".

Since the 1980s, the size premium has been found to exist alongside influences explained by market beta, value[4], momentum[5], liquidity[6] and leverage[7].

One example is the Fama–French five-factor model[8], a statistical model designed in 2014 by academics Eugene Fama and Kenneth French which extends on the CAPM model and states that a size premium, among other factors, can generate alpha. They hypothesised that small-caps have higher systematic risk which earns them a higher return premium.

Portfolio return = *Alpha* $+ R_f +$ ***Beta*** *(Benchmark return –* R_f*)* ***+ size + value + investment + profitability***

Subsequent research suggests that the size premium is available due to financial distress[9], liquidity[10], information uncertainty[11] and mispricing by investors due to behavioral biases[12].

For these reasons, small-cap exposure should be considered when constructing an investment portfolio.

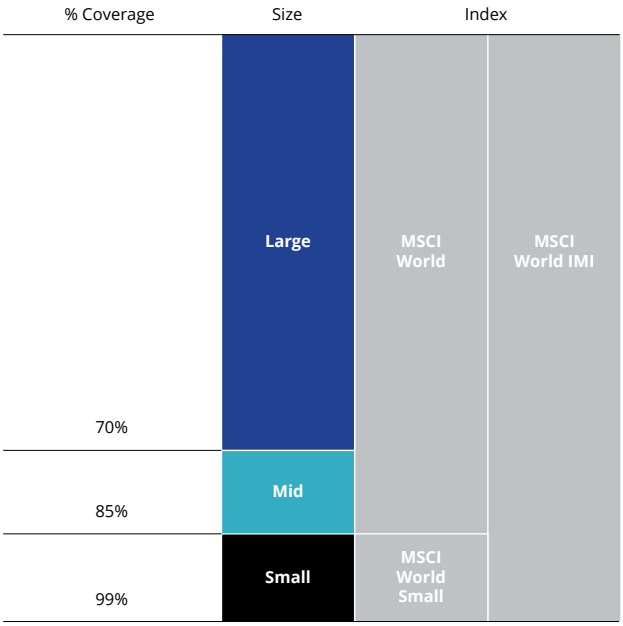
Defining small-caps

The definition of a "small-cap" is often determined by any of the following criteria:

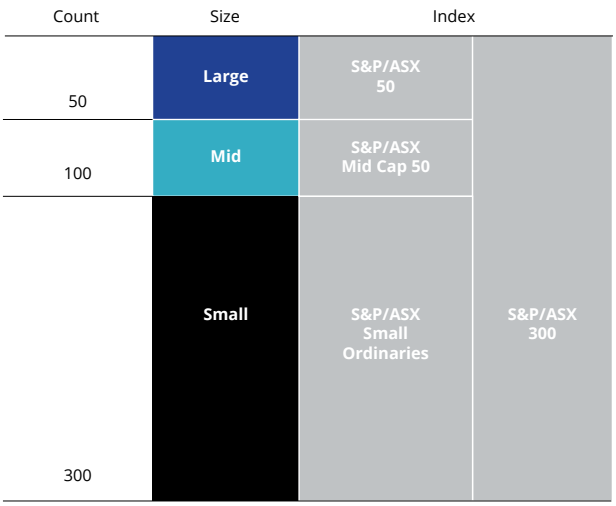
1. Absolute level of market capitalisation, for example, <A$1bn;
2. Percentage of market coverage, for example, companies in the smallest 14% of total market capitalisation above a minimum size threshold such as MSCI World Small Cap index;
3. Stock count, for example, set number of companies by market capitalisation ranking such as the S&P/ASX Small Ordinaries which is stocks 101 to 300.

Illustrative example:

Percentage of market coverage



Stock Count



Source: VanEck, S&P.

Source: VanEck, MSCI.

Most Australian investors are familiar with equity market benchmark S&P/ASX 200, which tracks the performance of Australia's largest 200 listed companies by market capitalisation. The make-up of the index gives investors access to small-caps, classified as companies from 101 onwards by the S&P/ASX Small Ordinaries. Australian investors are also known for actively increasing their Australian small-cap exposure through holding shares directly and via the significant range of active funds covering the asset class.

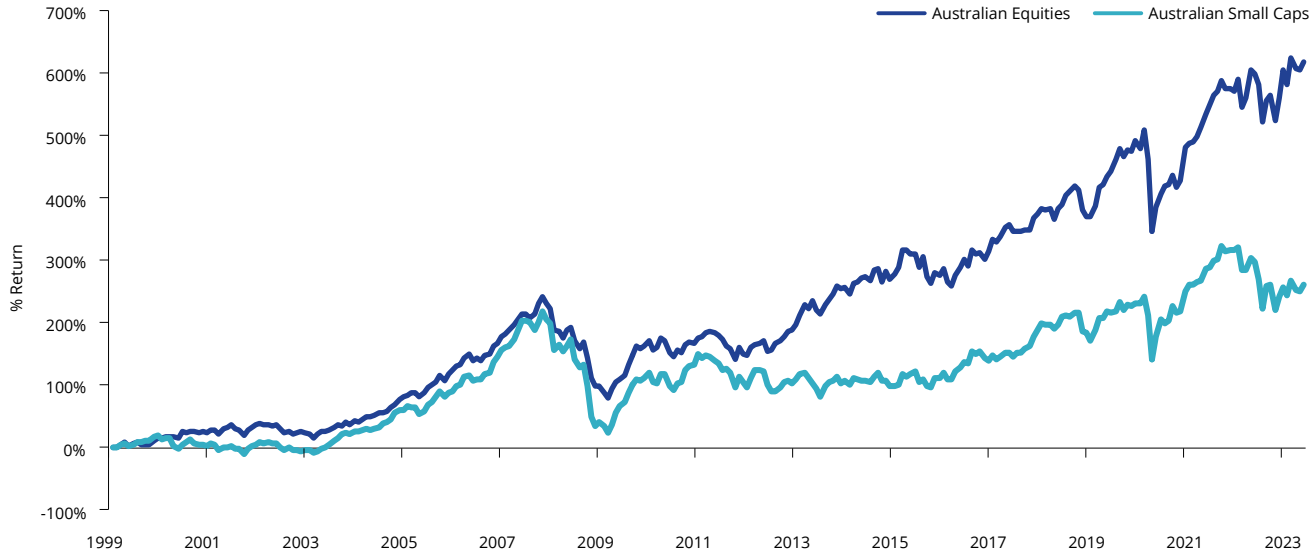
For international equities exposure, Australian investors' exposures are often dominated by large- and mid-cap companies so they therefore may not have an exposure to global small companies. This is because the benchmark index used by Australian managers is the MSCI World ex Australia Index, which aims to capture the performance of these large- and mid-cap companies. This benchmark captures approximately 85% of the free float-adjusted market capitalisation of each developed country in the index, so it includes the largest companies in each country, until this threshold is reached.

As a result, investors, inherent by index market convention for investing in international equities are missing out on opportunities in the remaining 15% of the market not included in the benchmark – global small-caps.

Index treatment differences between Australian and global equity benchmarks in capturing respective small -caps universe are the main reason Australian investors are underweight global small-caps despite the range of benefits the exposure can offer.

Another anomaly an Australian investor must contend with is that the alpha evident elsewhere in the world is not evident in local small-cap indices. The S&P/ASX Small Ordinaries Index has delivered lower cumulative returns relative to the broader Australian equities benchmark since 1998.

Cumulative historical performance of Australian small-caps and broader benchmark

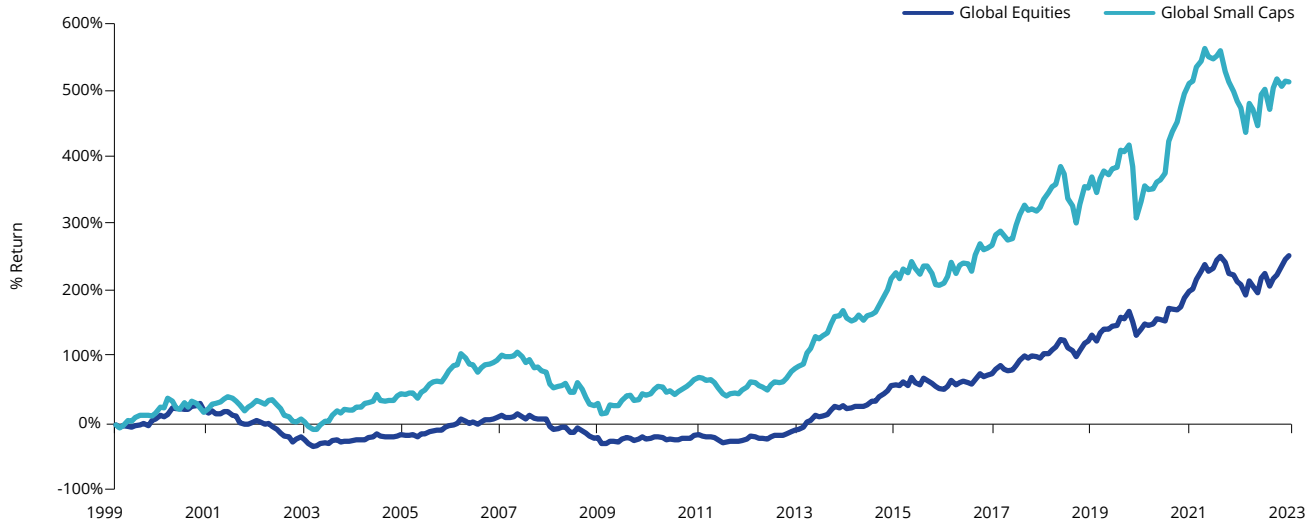


Source: Bloomberg, Australian Equities is S&P/ASX 200, Australian Small Caps is S&P/ASX Small Ordinaries, 31 December 1998 to 30 April 2023. Past performance is not indicative of future performance. You cannot invest in an index.

The case for global small-caps

Unlike Australian small companies, global smaller caps have historically demonstrated outperformance relative to large companies over the long term. Below is the cumulative performance of MSCI World ex Australia versus MSCI World ex Australia Small Cap indices.

Cumulative historical performance of global large caps versus small-caps



Source: Bloomberg, MSCI, Global Large Caps is MSCI World ex Australia Index, Global Small Caps is MSCI World ex Australia Small Cap Index. 31 December 1999 to 30 April 2023, returns in AUD terms. Past performance is not indicative of future performance. You cannot invest in an index.

Performance drivers

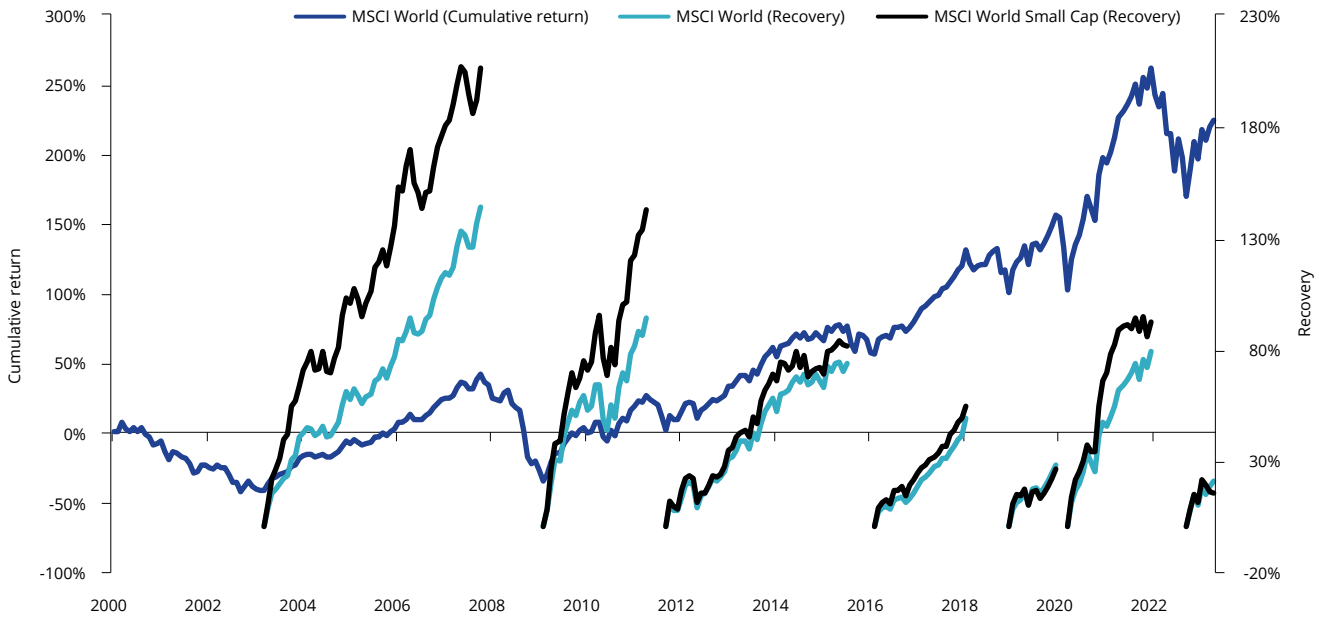
The drivers of small-cap outperformance relative to large caps is multi-facetted and explained by academics. In summary, it is due to the following;

1. **Growth potential[9]:** Small-caps are generally in the growth phase of the business cycle with lower market share, offering scope for expansion. Large companies tend to be mature with high market share, growing at a pace slower than market
2. **Non-ergodic returns[13]:** The small-cap universe captures companies that successfully expand market share and it also captures business operations that ultimately fail. The distribution of returns, is limited on the downside (a price can only fall 100%), but unlimited on the upside. A more significant stock performance dispersion means that, on average, upside potential is enhanced in small companies relative to large companies. Returns among listed companies is not ergodic. Ergodicity is the property of each constituent having the same chance to be at any point of the distribution as any other constituent. In this context, for the distribution of stock returns to be ergodic, at the beginning of the period each stock, irrespective of size, would have the same likelihood as any other stock of being in the extreme left (-100%) or extreme right (unlimited upside) of the distribution of returns. If the distribution was ergodic there would be no difference between the return distribution of larger and smaller companies, each would be represented at the extremes. This is not the case. Smaller-sized companies have more of a chance of being at the extremes than mega-caps. Ergodicity is further explained in VanEck's white paper, Why Equal Weighting Outperforms: The Mathematical Explanation.

These price drivers align with periods when small-caps has historically outperformed large-caps.

Small-cap investing is cyclical, small-caps have historically outperformed in bull markets and underperform in bear markets. The growth potential of smaller companies comes under more scrutiny in a bear market given the heightened uncertainty as to whether a small-cap can generate sustainable earnings and grow market share. Large caps also benefit from a 'flight to quality' as investors flock to companies with higher trading volume, resulting in a smaller drawdown. This is illustrated when looking at the cumulative performance of small-caps relative to large caps during bull markets.

Cumulative historical performance of global small-caps relative to large caps during bull markets.



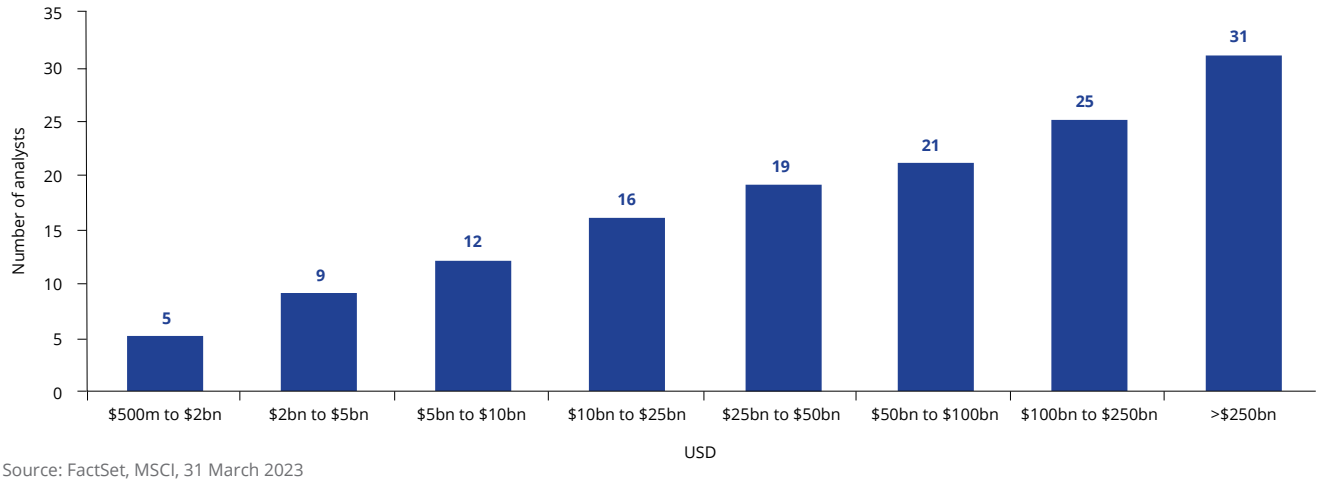
Source: MSCI, Global Large Caps is MSCI World ex Australia Index, Global Small Caps is MSCI World ex Australia Small Cap Index. 31 December 1999 to 30 April 2023. Past performance is not indicative of future performance. You cannot invest in an index.

Market inefficiencies

Active managers have been able to achieve outperformance investing in international (and Australian) small-companies more successfully than their large capitalisation peers as small companies are generally under researched, so the equity market is inefficient[14].

Limited coverage increases divergence in views on valuation, opportunity and risk. This leads to mispricing which creates outperformance opportunities by sourcing companies at attractive valuations with unrecognised growth potential, ultimately driving share prices.

US equity market analyst coverage by market capitalisation bucket

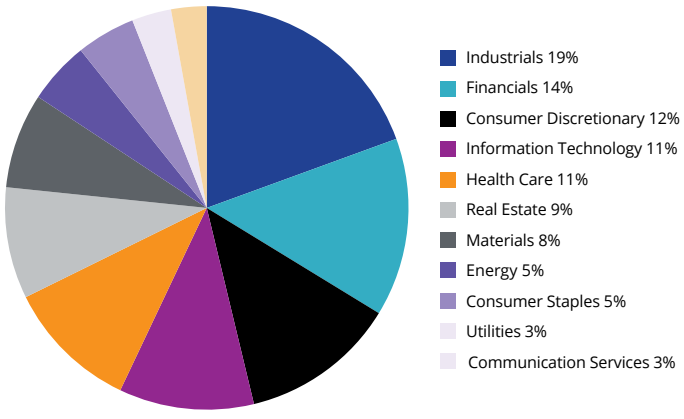


Source: FactSet, MSCI, 31 March 2023

Diversification

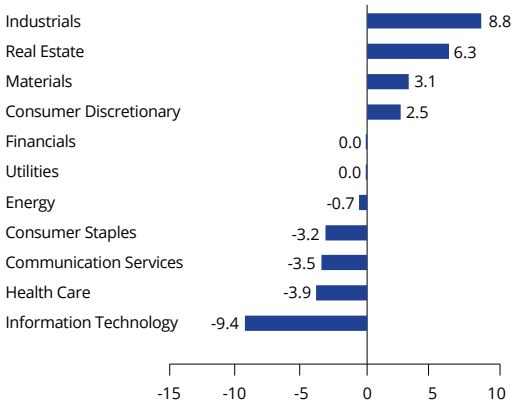
Small-cap investing provides diversification opportunities by sector composition relative to large-caps. Industries that benefit from large economies of scale and monopolisation (energy, telecommunications and information technology) tend to be underrepresented in small-cap indices. In the context of ownership structures, small-caps are more commonly owned by entrepreneurs, management and families, and less likely to have partial state ownership, common in large- and mega-caps.

MSCI World Sector Weights



Source: Bloomberg. As at 30 April 2023.

GICS Sector Weight Differential: MSCI World versus MSCI World Small Cap



Source: Bloomberg. As at 30 April 2023.

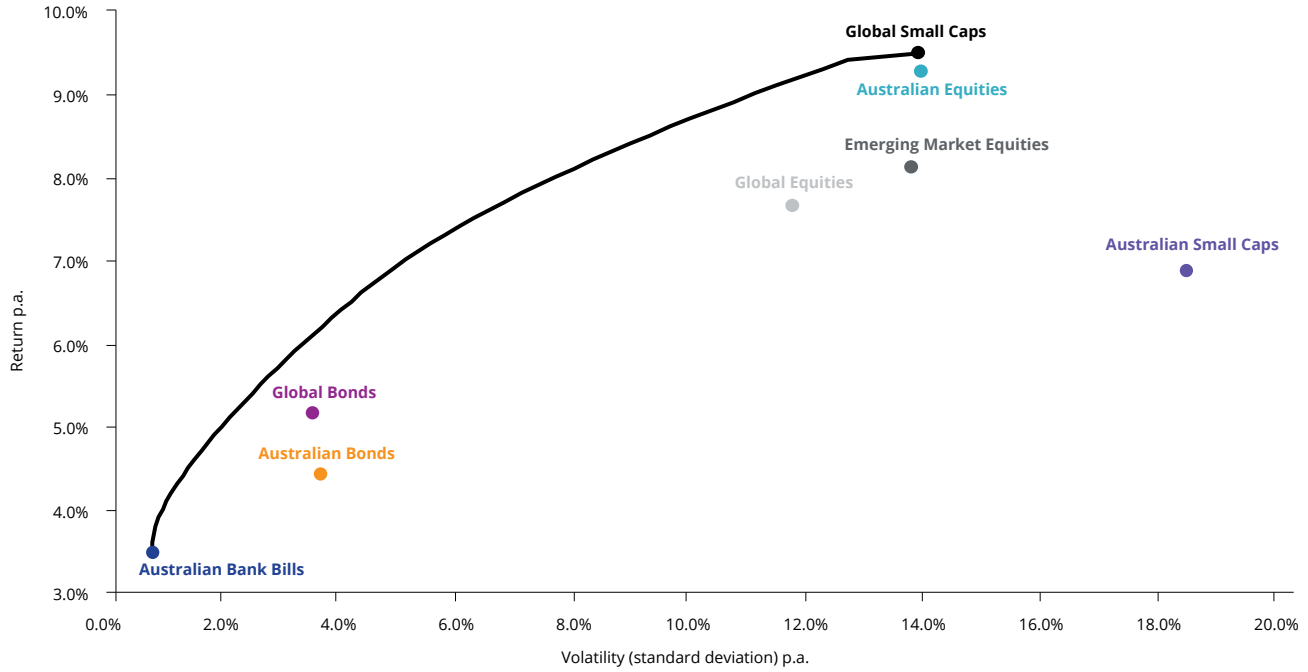
Small-caps in portfolio construction

It is also necessary to consider the performance and risks of global small-caps compared to broader asset classes to determine a portfolio approach for allocation. A commonly-used framework for asset allocation decisions is the efficient frontier, which shows the optimal portfolio that offers the highest expected return for a given level of risk.

By analysing historical returns for the period January 2003 to December 2022, it is possible to determine if you could have reduced volatility without sacrificing return, or boosted return without increasing volatility by adjusting the mix of asset classes.

The following chart and table is an output of such an analysis of the historical returns and volatility of key asset classes over the past 20 years. The efficient frontier line represents the optimal combination of these asset classes such that no other combination can increase return without a rise in volatility, nor reduce volatility without a decrease in return. To make this exercise as "pure" as possible, we intentionally chose not to impose any constraints on the individual asset class weights.

Major asset class benchmark efficient frontier: 20 years



Source: Bloomberg, January 2002 to December 2022, returns in Australian dollars. Global Equities is MSCI World ex Australia Index, Australian Equities is S&P/ASX 200 Index, Australian Small Caps is S&P/ASX Small Ordinaries Index, Global Small Caps is MSCI World ex Australia Small Cap Index, Global Bonds is Bloomberg Global Aggregate Bond Hedged AUD Index, Australian Bank Bills is Bloomberg AusBond Bank Bill Index, Australian Bonds is Bloomberg AusBond Composite 0+ yrs Index, Emerging Market Equities is MSCI Emerging Markets Index. Past performance is not a reliable indicator of future performance. You cannot invest in an index.

Major asset class portfolio's efficient frontier implied weights by target standard deviation (volatility)

2003 to 2022													
	< low risk												**high risk >**
Portfolio Volatility	0.6%	0.8%	1.2%	1.8%	2.4%	3.2%	4.0%	4.9%	6.1%	7.5%	9.1%	10.8%	12.4%
Australian Equities	0.0%	1.2%	2.3%	3.4%	4.7%	6.1%	7.6%	11.3%	16.5%	22.3%	28.6%	35.5%	40.5%
Global Equities	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Bonds	0.0%	7.2%	17.0%	27.7%	39.4%	52.3%	66.4%	65.8%	54.3%	41.7%	28.0%	12.9%	0.0%
Australian Bonds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Australian Small Caps	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Small Caps	**0.0%**	**2.6%**	**5.1%**	**7.9%**	**10.9%**	**14.2%**	**17.9%**	**22.9%**	**29.2%**	**36.0%**	**43.4%**	**51.5%**	**59.5%**
Australian Bank Bills	99.7%	89.0%	75.7%	61.0%	44.9%	27.4%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Bloomberg, January 2003 to December 2022, returns in Australian dollars. International Equities is MSCI World ex Australia Index, Australian Equities is S&P/ASX 200 Index, Australian Small Caps is S&P/ASX Small Ordinaries Index, Global Small Caps is MSCI World ex Australia Small Cap Index, Global Equities as MSCI World ex Australia, Global Bonds is Bloomberg Global Aggregate Bond Hedged AUD Index, Australian Bank Bills is Bloomberg AusBond Bank Bill Index, Australian Bonds is Bloomberg AusBond Composite 0+ yrs Index, EM Equities is MSCI Emerging Markets Index. Past performance is not a reliable indicator of future performance. You cannot invest in an index.

The key takeaway is that historically global small-caps were the best performer with annualised volatility lower than two other asset classes. The analysis also illustrates that an allocation between 0 and 100% to global small-caps was optimal depending on the target annualised volatility. For reference, institutional investors typically cap global small-cap equities exposure at 15%[15], consistent with MSCI market coverage percentage. Another interesting observation is that despite Australian small-caps having the highest annualised volatility, it also had a lower annualised return than respective large cap equity benchmarks, negating the requirement for allocation. This highlights the challenge of investing in Australian small-caps, based on this backward-looking assessment of performance. This represents a conundrum for Australian investors.

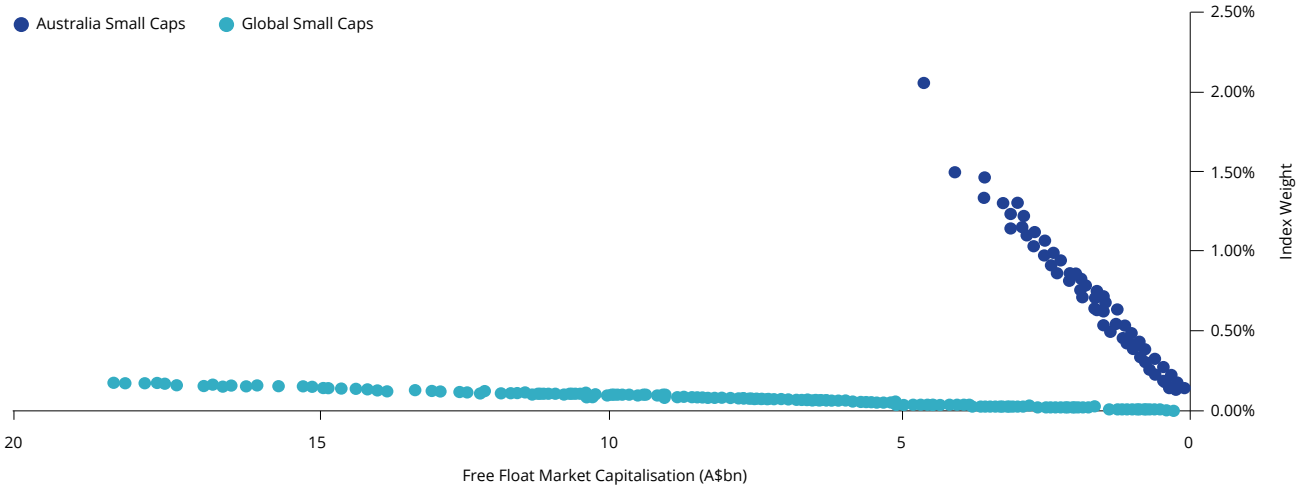
Australian small-cap conundrum

The Australian small-cap universe is hamstrung by structural nuances, not present globally.

Market size

An observation that might surprise Australian investors is that the global small-caps, in the context of market size, would be characterised as mid-caps in Australia when measured by market capitalisation. Global small-caps are, on average, two times larger than Australian small-caps, as represented by MSCI World Small Cap and S&P/ASX Small Ordinaries. Furthermore, the largest global small-cap, in the context of Australian listed companies by market capitalisation, would rank as approximately the 20th largest on ASX, 80 places ahead of the largest Australian small-cap determined by the S&P/ASX Small Ordinaries Index (stock 101).

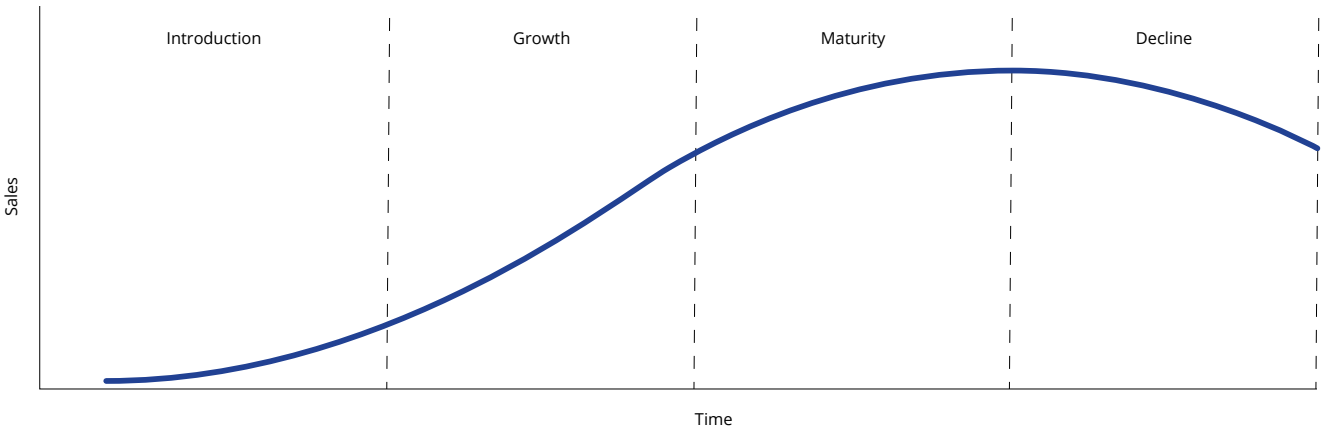
Index coverage by market capitalisation



Source: S&P, MSCI, as at 30 April 2023. Australian Small Caps is S&P/ASX Small Ordinaries Index, Global Small Caps is MSCI World ex Australia Small Caps Index.

Higher average market capitalisation of global small-caps relative to Australia small-caps implies that these companies are more established businesses in the 'growth' phrase of the business cycle. They have grown to a size to be included in the MSCI World ex Australia Small Cap market coverage range by demonstrating an increase in sales and earnings growth. Australian small-caps by comparison have a higher proportion of companies in the 'introduction' phase, meaning that sales and earnings growth are likely to be more mixed, with a shorter track record.

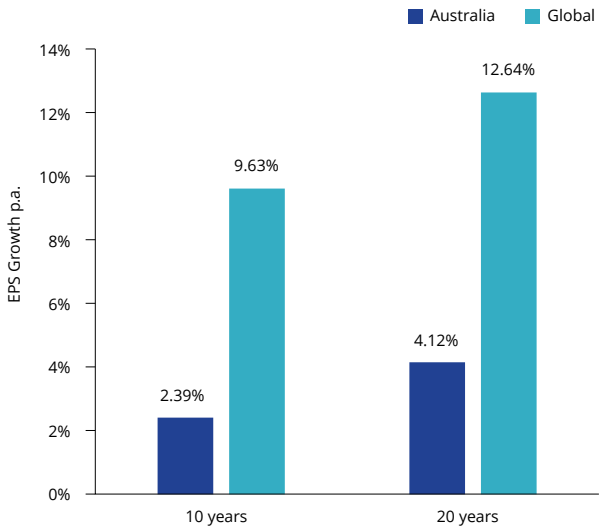
Business life cycle



Source: VanEck. For illustrative purposes only.

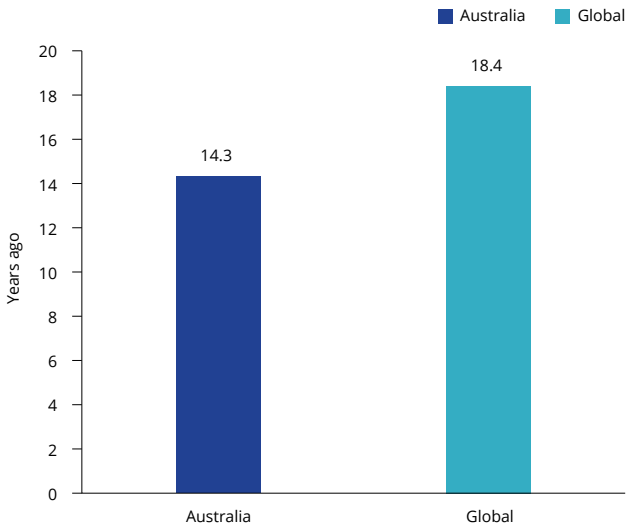
This observation is reflected when comparing earnings per share (EPS) growth of small-cap benchmarks over the past 10 and 20 years. Global EPS growth outpaced Australia by more than 3 times. Average time since listing of global small-caps is also 4 years longer than Australian small-caps.

EPS growth comparison



Source: Bloomberg, as at 30 April 2023. Australia as S&P/ASX Small Ordinaries, Global as MSCI World ex Australia Small Cap. Past performance is not indicative of future performance.

Listing date comparison

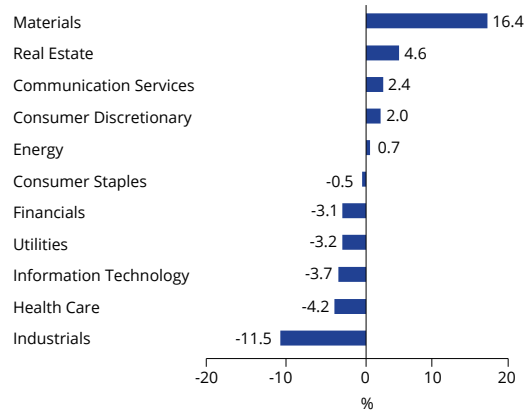


Source: Bloomberg, as at 30 April 2023. Australia as S&P/ASX Small Ordinaries, Global as MSCI World ex Australia Small Cap. Past performance is not indicative of future performance.

Unprofitable company coverage

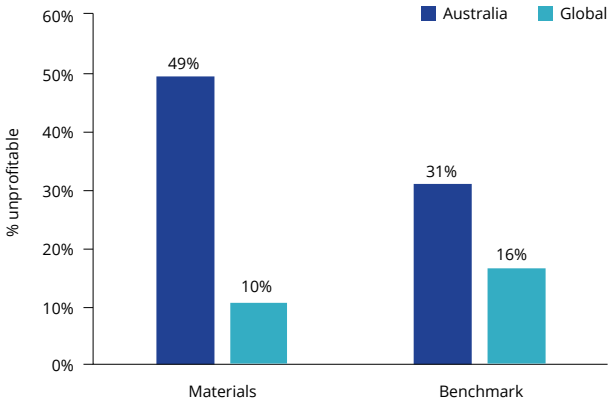
The largest Australian small-cap sector is materials. In the global index, it is one of the smallest sectors. Many small unprofitable mining companies list on the Australian stock exchange in the 'infant' stage of the business cycle to raise capital for exploration or mine development where debt and private equity financing is unavailable. This is less common globally as offshore exchanges have stricter rules around profitability and financial viability requirements for listing.[16] This means that exposure to an Australian small-cap strategy may not be a sound investment approach. Australian small-caps have almost double the exposure to non-profitable companies, compared to global.

GICS Sector Weight Differential: S&P/ASX Small Ordinaries versus MSCI World Small Cap



Source: Bloomberg, as at 30 April 2023.

Percentage of unprofitable small cap companies by index weight



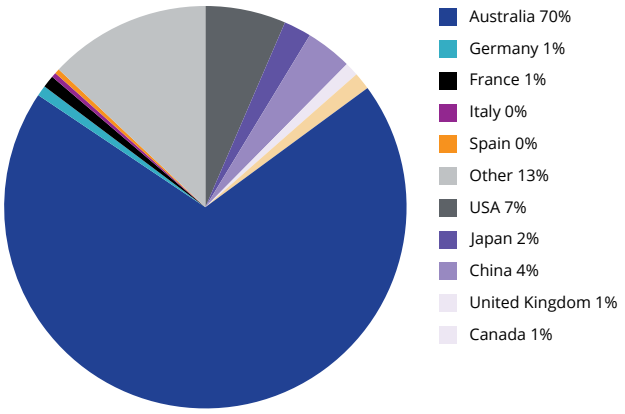
Source: Bloomberg, as at 30 April 2023. Australia is S&P/ASX Small Ordinaries, Global is MSCI World ex Australia Small Cap.

Geographic revenue exposure

Australia accounts for 1.7% of global gross domestic product (GDP) and 0.3% of the world's population.[17] If you exclude mining companies, Australian small-caps tend to be Australian centric operations with low global revenue. Primarily servicing Australian customers limits scope for expansion, unless the company goes through a capital raising to expand operations globally, often resulting in the company dropping from S&P/ASX Small Ordinaries coverage. However, global small-caps are more likely to have global operations, or, if they are only locally based offer the potential for significant market expansion by servicing countries that are larger by GDP.

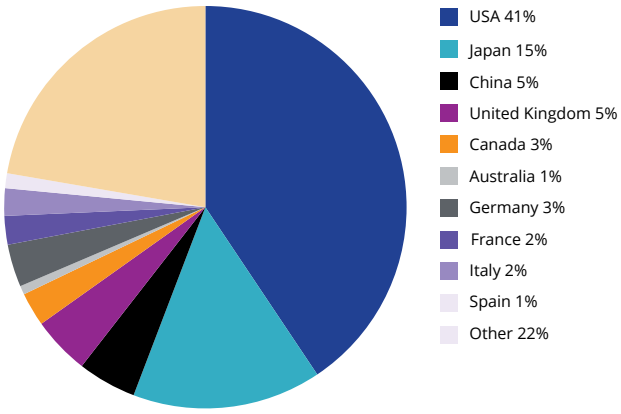
Australia accounts for 1% of global small-cap revenue compared to 70% locally. Williams-Sonoma, Inc is a good example of a US small-cap that operates globally. The company is an American publicly traded consumer retail company that sells kitchenware and home furnishings, operating approximately 600 brick and mortar stores and distributes to more than 60 countries. Listed in 1983 and has a market capitalisation of A$11.9bn.[18]

Geographic revenue exposure comparison Australian Small Caps



Source: MSCI. MSCI Australia Small Caps Index. As at 30 April 2023.

Global Small Caps

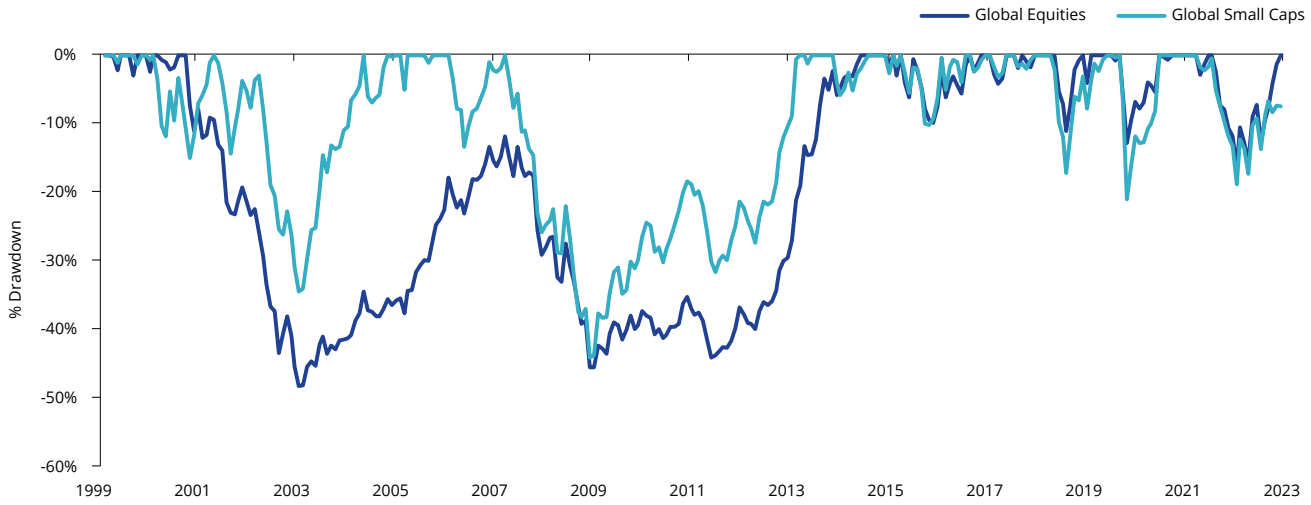


Source: MSCI, MSCI World ex Australia Small Caps Index. As at 30 April 2023.

Drawdown

Adding small-cap exposure to large- and mid-cap exposures in portfolios is known to increase the risk of losses. This is true globally with small-caps historically having slightly larger drawdowns during the global financial crisis (GFC) and COVID-19 market shocks. However, it is also worth noting that global small-caps returned to pre-shock highs faster following the GFC and 2001 dot com bubble. Noting, this should not be relied upon as an indicator of future performance.

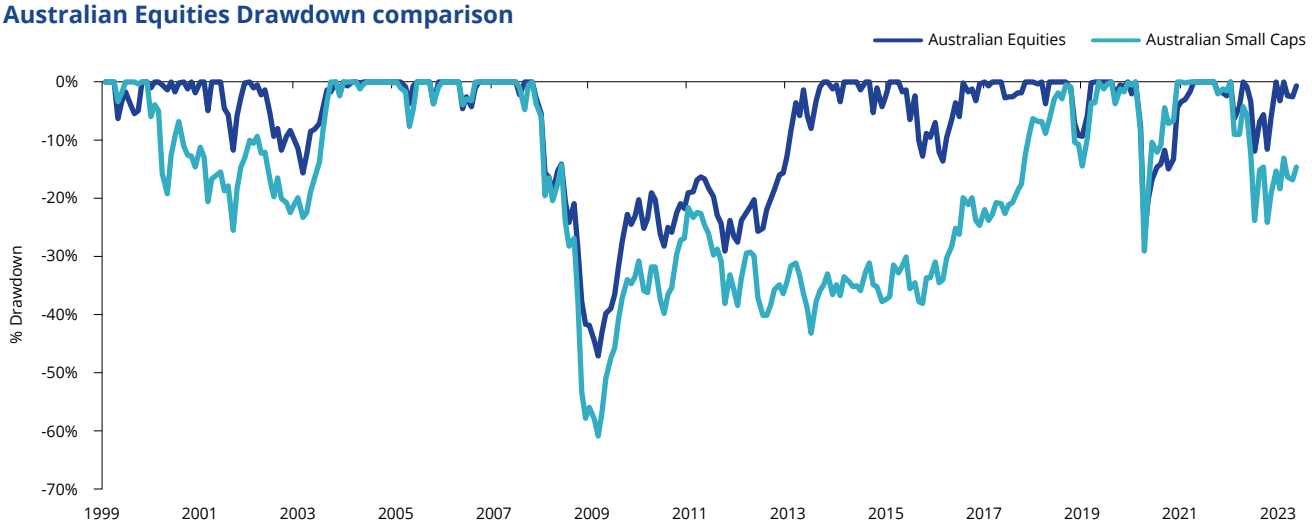
Global Equities Drawdown comparison



Source: Bloomberg, 31 December 1998 to 30 April 2023, Global Small Caps is MSCI World ex Australia Small Cap Index, Global Equities is MSCI World ex Australia. Past performance is not indicative of future performance. You cannot invest in an index.

In Australia, small-caps drawdown was materially worse than large caps during the dot com, global financial crisis and COVID-19 market shocks. This is in line with expectations as investors typically seek large companies during market stress events as their business models are seen to be more viable during economic downturns. The higher dispersion in the scale of the drawdown between small- and large-caps is a function of the market size of Australian small-caps relative to global.

Australian Equities Drawdown comparison

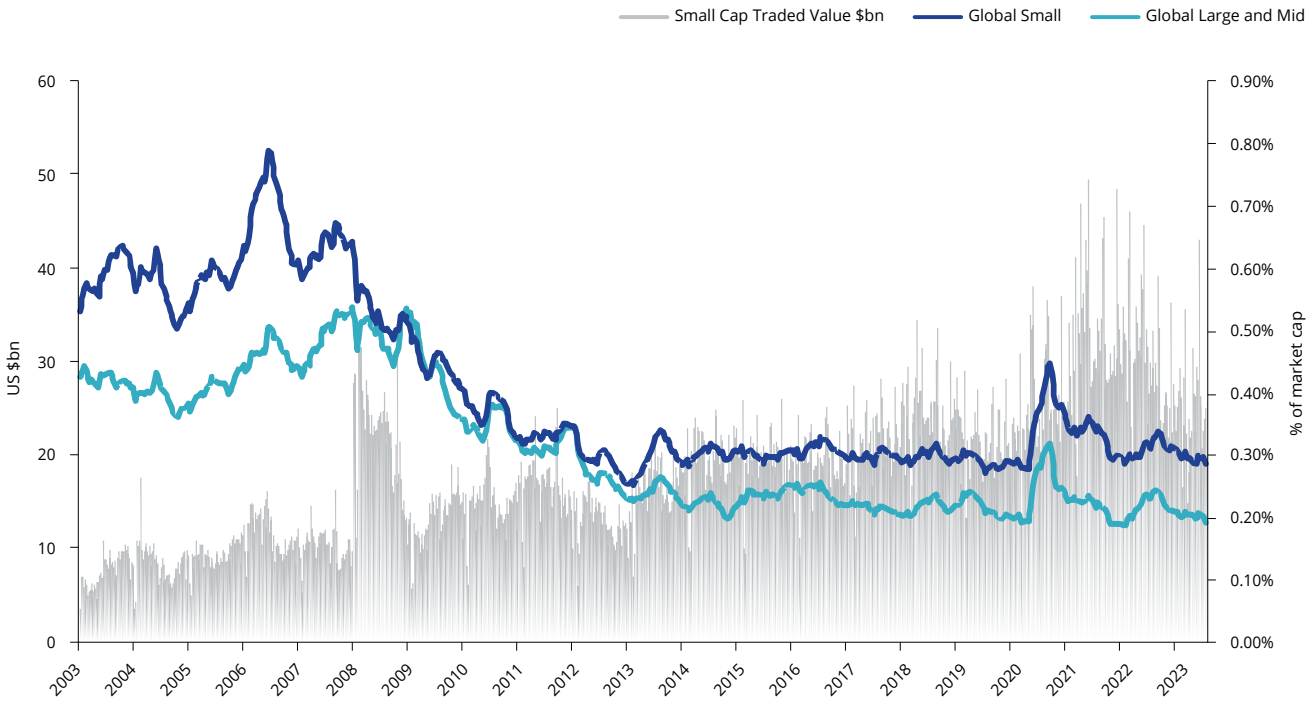


Source: Bloomberg, 31 December 1998 to 30 April 2023, Australian Equities is S&P/ASX 200 Index, Australian Small Caps is S&P/ASX Small Ordinaries Index. Past performance is not indicative of future performance. You cannot invest in an index.

Small-cap liquidity

Investors often cite concerns about liquidity as key reason for not investing in small-caps. While this observation is understandable, it is prudent to consider liquidity in the context of a companies' market capitalisation.

Trading volume is a function of a company's market size. The smaller the company, the smaller the trading activity and therefore liquidity available. However, when observing trading volume as a percentage of market capitalisation, global small-caps are, on average, higher than large-caps and importantly increases during market stress events. We can see during the dot com, global financial crisis and COVID-19, the percentage of trading activity spiked across both small- and large-caps.



Source: MSCI, Bloomberg. Global Small as MSCI World ex Australia Small Cap, Global Large and Mid is MSCI World ex Australia Index.

Traded value as a percentage of market capitalisation

The results highlight that small cap liquidity risk can be mitigated by capping exposure to maximum 15% of a broader equity investment portfolio. In other words, capping small cap exposure allows trading to be proportionate to the average daily trading volume, reducing the impact on market pricing.

A different approach: global small-cap quality

Introducing global small-cap quality

Having now established, for investors aiming to exploit the size premium, the rationale for including international small-companies as part of a long-term diversified equity portfolio, potentially at the expense of, or alongside, an allocation to Australian small companies, investors must consider the different investment options available. To date, choice has been limited to market capitalisation index-tracking passive funds and expensive active managers.

One factor approach that has shown historical outperformance in the large- and mid-cap universe while offering defensive characteristics is quality[19]. Factor investing is selecting a set of companies with similar fundamentals, price behaviour or a combination of both. These strategies are implemented with the aim of achieving targeted investment outcomes. For further details see factor investing section in the Appendix.

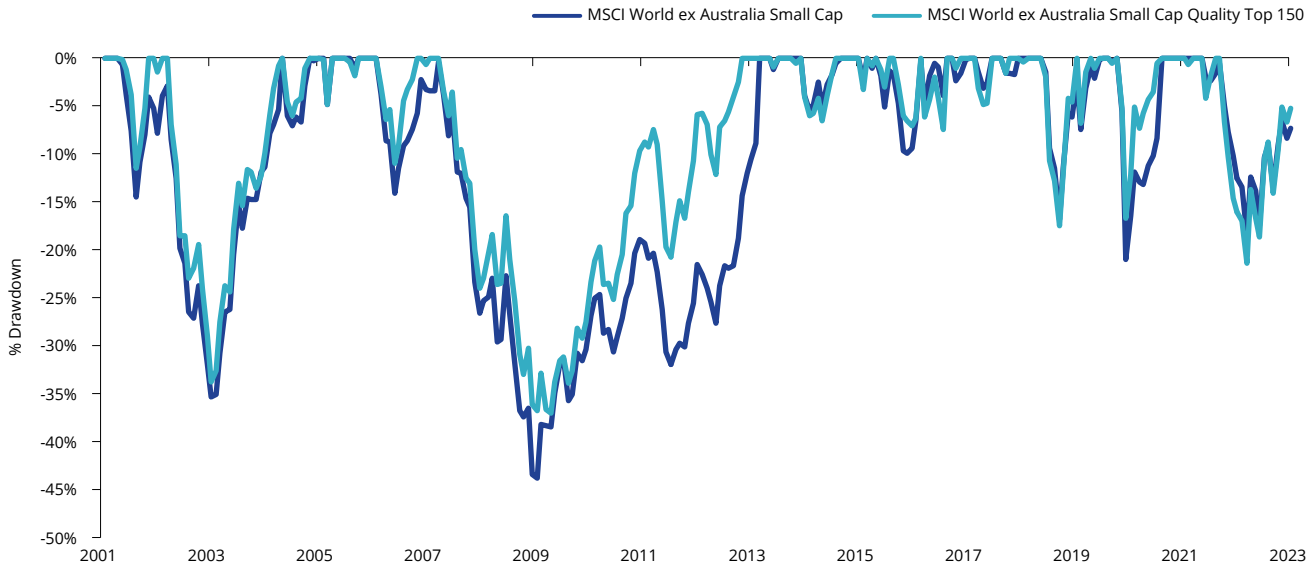
The flight to quality

The quality factor is a defensive strategy that has historically outperformed during periods of heightened market volatility. Benjamin Graham wrote about it in The Intelligent Investor[20] in 1949, where he said investors should demand from a company "a sufficiently strong financial position and the potential that its earnings will at least be maintained over the years."

Such companies, he claimed, show resilience by falling less in a downturn, commonly referred to as a 'flight to quality' and recovering to previous highs quicker than other companies. MSCI's implementation of the quality factor shows that while it does tend to behave defensively in downturns, it also tends to capture a fair share of the upside in bull runs.

Its defensive characteristics can be seen when comparing the drawdown of MSCI World Small Cap Quality against MSCI World ex Australia Small Cap following the global financial crisis. Quality returned to pre-global financial crisis 5 months faster than the broader index.

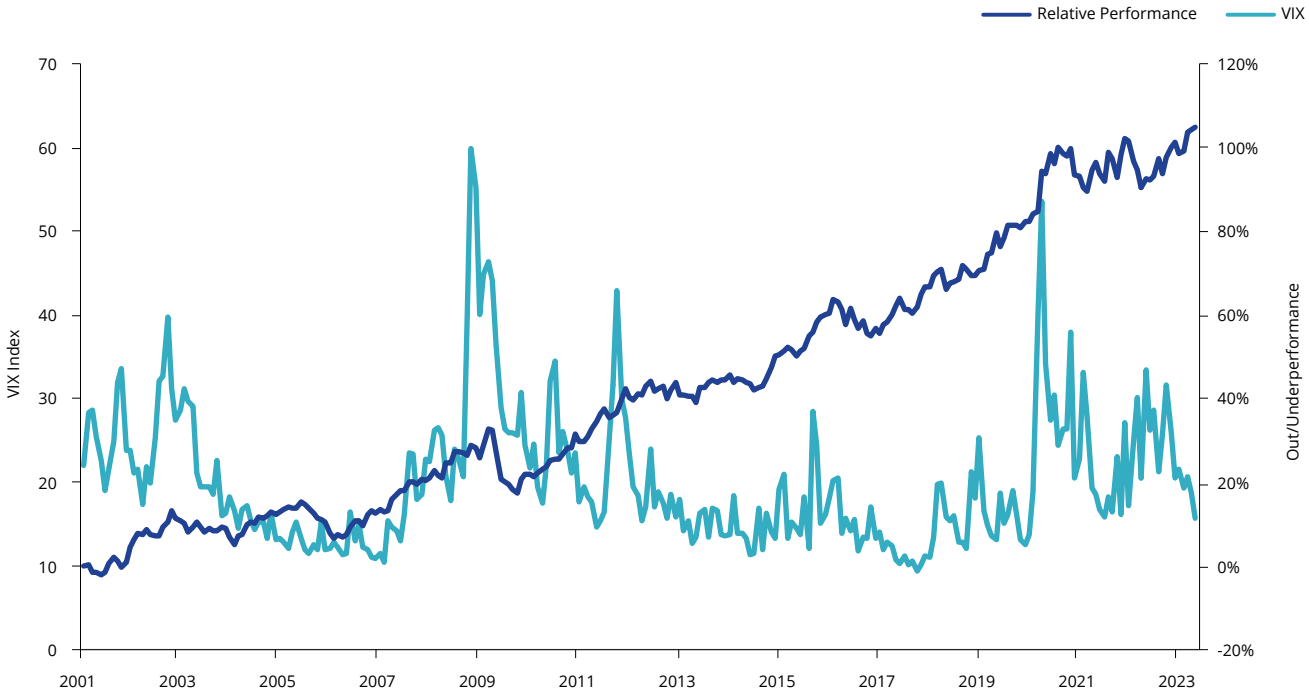
Global Small Cap Equity Drawdown Comparison



Source: MSCI, AUD returns. Past performance is not indicative of future performance. You cannot invest in an index.

Quality also outperformed during periods of heightened volatility represented by the Chicago Board Options Exchange Volatility Index (VIX). Higher index value corresponds with higher expected volatility of the S&P 500 in the options market. Notable periods of outperformance include the dot com recession, global financial crisis, Eurozone crisis, 2015 to 2016 market shocks and COVID-19 market drawdown.

Global Small Cap Quality relative performance to Benchmark versus VIX index



Source: Bloomberg, MSCI, USD returns, January 2001 to April 2023, Relative Performance as MSCI World ex Australia Small Cap Quality Top 150 versus MSCI World ex Australia Small Cap. VIX Index as Chicago Board Options Exchange Volatility Index.

In his paper Quality Investing, Robert Novy-Marx set out to identify quality by assessing the best-known quality strategies[16]. He did this by assessing quality metrics across the market capitalisation spectrum.

Novy-Marx created 'quality' strategies constructed from the US-focused Russell 1000 and the Russell 2000 indices. He then compared these 'quality' strategies against their respective parent benchmarks and analysed the performance using regression analysis. Regression analysis is a statistical method used to explain why something happened in relation to something else, in this instance quality fundamentals in relation to the broader US equity market.

The Russell 1000 represents approximately 92% of the total market capitalisation of all stocks listed in the US equity market. These are the largest 1,000 companies of the Russell 3000. The Russell 2000 Index represents stocks 1,001 to 3,000. It is the benchmark index for small companies in the US equity market.

Novy-Marx was able to illustrate that the quality strategies he assessed were able to "generate higher returns in the small cap universe."[10] As an example, the results of Novy-Marx's regression analysis of "Grantham's quality" portfolio are summarised below.

Novy-Marx's assertion that quality small companies are able to generate higher relative returns than quality larger companies is evidenced by the higher alpha achieved by the 'Grantham Quality' Russell 2000. This strategy captured Grantham's quality principles.

The quality factor in US small companies and in US mid- and large- companies

Regression results			
Grantham's quality	α (alpha)	β_{MKT} (market)	β_{HmL} (value minus growth)
Quality Russell 2000	3.58	-0.23	-0.33
Quality Russell 1000	3.29	-0.22	-0.42

Source: Quality Investing, Robert Novy-Marx (2012). Novy-Marx analysed 10 years of Russell Index data

According to Novy-Marx "MSCI Quality Indices, launched in December 2012, are based on Grantham's basic principles."

According to MSCI, its Quality Indices "identify quality growth stocks by calculating a quality score for each security in the eligible equity universe based on three main fundamental variables: high return on equity (ROE), stable year-over-year earnings growth and low financial leverage."[21]

For small companies MSCI, in partnership with VanEck, has created the MSCI World ex Australia Small Cap Quality 150 Index (QSML Index) which includes 150 of the world's highest quality small-companies based on the same key fundamentals used for its Quality indices.

To determine the efficacy of the quality approach to international small companies beyond the US Russell 3000, we conducted similar regression analysis to Novy-Marx on the international equity universe by comparing the QSML Index and the MSCI World ex Australia Quality Index to their respective parent benchmarks.

The table below illustrates the respective alpha generated after stripping out performance attributed to market and value/growth tilts using MSCI indices. Over ten years to 30 April 2023, QSML Index generated 3.46% alpha per annum, higher than MSCI World ex Australia Quality Index alpha. Negative β_HmL coefficient highlights that both quality strategies' performance is derived from growth.

The quality factor in international small companies and in international mid- and large- companies

Index	α (alpha)	**Coefficient**	
		βMKT (market)	*βHmL* (value minus growth)
MSCI World ex Australia Small Cap Quality 150 Index (QSML Index)	3.46%	1.04	-0.26
MSCI World ex Australia Quality Index (QUAL Index)	2.01%	1.02	-0.25

Source: VanEck Research, 10 years ending April 2023. VanEck replicated Novy-Marx's methodology to capture international small companies beyond US. Past performance is not a reliable indicator of future performance. You cannot invest directly in an index.

This is consistent with Novy-Marx's findings. The alpha of quality international small companies is higher than the alpha of quality large international companies.

Access to global small cap quality equities

The VanEck MSCI International Small Companies Quality ETF (ASX: QSML) launched in March 2021 and is a passive strategy that tracks the MSCI World ex Australia Small Cap Quality 150 Index. Since March 2021 many investors have benefited from using QSML as the core of their global small cap equities exposure.

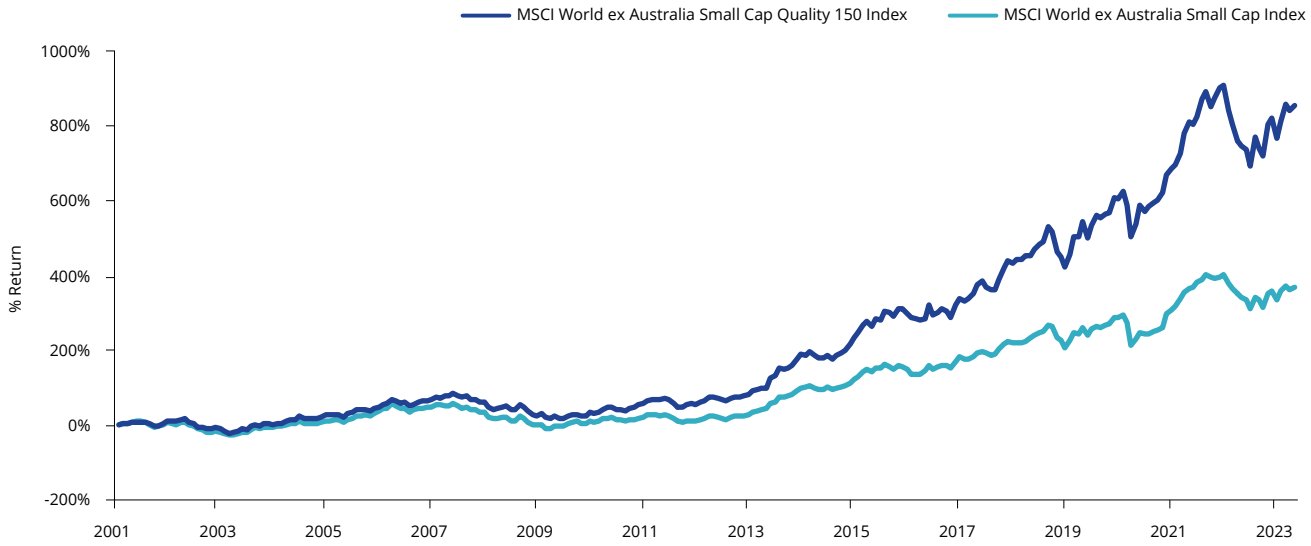
The performance of the fund has been as follows:

Performance as at 30 April 2023	1 Month (%)	3 Months (%)	6 Months (%)	1 Year (%)	Since inception (% p.a.)
QSML	1.46	4.74	5.68	12.46	5.86
MSCI World ex Australia Small Cap Index	1.17	1.83	3.34	6.07	2.66
Difference	+0.29	+2.91	+2.34	+6.39	+3.20

QSML inception date is 8 March 2021.

Source: VanEck, Bloomberg, as at 30 April 2023. Results are calculated daily to the last business day of the month and assume immediate reinvestment of all dividends. QSML results are net of management fees and other costs incurred in the fund but do not include brokerage costs and buy/sell spreads incurred when investing in QSML. Past performance is not a reliable indicator of future performance. You cannot invest in an index.

Cumulative hypothetical performance comparison: MSCI World ex Australia Small Cap Quality 150 Index (QSML Index) and MSCI World ex Australia Small Cap Index



Source: Morningstar Direct, as at 30 April 2023. The above graph is a hypothetical comparison of performance of the MSCI World ex Australia Small Cap Quality 150 Index ("QSML Index") and the MSCI World ex Australia Small Cap Index ("Parent Index"), from the Parent Index base date 29 December 2000. QSML Index performance prior to its launch in December 2020 is simulated based on the current index methodology. Results are calculated to the last business day of the month and assume immediate reinvestment of all dividends and exclude fees and costs associated with investing in QSML. You cannot invest in an Index. Past performance is not a reliable indicator of future performance of the indices or QSML. The Parent Index is shown for comparison purposes as it is the widely recognised benchmark used to measure the performance of developed market small companies, weighted by market cap. QSML Index measures the performance of 150 companies selected from the Parent Index based on MSCI quality scores. Consequently the QSML Index has fewer companies and different country and industry allocations than the Parent Index.

Conclusion

Global small-cap investing has been an effective way to achieve excess returns relative to large and mid-caps over the long term. It is supported by modern portfolio theory, academics and illustrated through empirical research. However, when small-cap investment strategies are applied in Australian equities, they fail to achieve excess returns for three reasons: size, exchange listing requirements and sector exposure.

Global small-cap investing is underrepresented in Australian portfolios.

Quality investing is an approach well suited to global small-cap equity. The strategy harvests more alpha relative to large-caps and exhibits defensive characteristics.

Appendix – Factor Investing

Factor investing selects a set of companies with similar fundamentals, price behaviour or a combination of both. These strategies are implemented with the aim of achieving targeted investment outcomes. Factor definitions are backed by a range of robust academic findings and empirical results. Active manager performance can often be attributed to factor exposures.

Over the past two decades, access to passive factor investing (also known as smart beta) has become readily available via ETFs. Factor-based ETFs combine the best aspects of active and passive management by tracking indices with defined rules, designed to deliver a targeted investment outcome, while retaining transparency, liquidity and ease of trading for investors. MSCI is a global leader in constructing factor index strategies.

Exhibit 1 – Single factor strategy definitions

Factor	Objective	Academic research	MSCI single factor criterion
Value	Value investing selects 'cheap' companies trading a low price to valuation multiples relative to peers. Value seeks to provide excess returns as company valuations relative to price return to market average.	The value factor is also grounded on the work of Benjamin Graham and David Dodd in the 1930s and academic research by Basu (1977)[14] and Fama and French (1992)[4].	• Book value to price ratio • Forward price to earnings • Enterprise value to cash flow from operations
Growth	Growth investing selects companies that have achieved strong earnings and sales growth. Growth seeks to provide excess returns by investing in companies with historically strong company growth with the intention this will continue in the future.	Growth is paired against value by academics including Fama and French (1992)[4], Lakonishok et al. (1994)[22] and Haugen (1995)[23].	• Long-term forward earnings per share (EPS) growth rate • Short-term forward EPS growth rate • Current internal growth rate • Long-term historical EPS growth trend • Long-term historical sales per share growth trend
Quality	Quality investing selects companies considered financially healthy, providing stable earnings growth, high return on equity and low financial leverage. Quality is a defensive strategy as it seeks to outperform in late cycle economic environments.	Research supporting quality includes Benjamin Graham and David Dodd in the 1930s. Subsequent empirical studies show that quality growth stocks have historically outperformed the market with relatively low volatility over long time periods (Novy-Marx 2014)[16] and a portfolio of quality stocks produces better Sharp ratios (risk-adjusted returns) than the market (Asness, Frazzini, and Pedersen 2013)[24].	• High return on equity • Stable year on year earnings growth • Low debt to equity ratio
Momentum	Momentum investing select companies that recently had strong positive pricing sentiment. The strategy seeks to provide excess returns by investing in companies with strong pricing historical performance tailwinds.	Momentum, as a factor, is supported by academic research by Jegadeesh and Titman (1993)[5] which was reinforced by Carhart (1997)[25] and Rowenhorst (1998)[26].	• 6-month local share price return • 12-month local share price return

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