VanEck®

Access the opportunities.

Mastering Small Companies with Smart Beta

February 2019

Introduction

Australian liquid small companies which pay regular dividends are likely to reap greater returns and provide superior downside protection against market corrections, compared to investing in small companies that don't pay regular dividends. Periods of volatile market movements in Australia over the last 10 years, including in 2018, have highlighted the relative value of investing in small capitalisation companies that pay dividends compared to those that don't.

There are compelling reasons for using the payment of dividends as a stock filter, which we explore in this paper. In simple terms, dividends are an objective measure of a company's financial position and paying dividends indicates that the company enjoys good financial health and is profitable. Typically, companies that pay dividends have robust balance sheets with strong cash flows. This is as true of small-caps as it is of large-cap companies. Dividends too have been shown to be empirically linked to determining stock values and future earnings potential.

Let's examine the performance of small-cap companies in Australia over the last 10 years.

A dividend filter produces results

The MVIS Australia Small-Cap Dividend Payers Index (MVS Index)[1] is a smart beta index that tracks the performance of Australian small companies that pay dividends. Since its inception in 2009, the MVS Index has outperformed the standard market capitalisation index, the S&P/ASX Small Ordinaries (Small Ords).

This outperformance was evident during the past twelve months, when the MVS Index fell just 0.12%, compared to a much greater fall of 3.06% for the Small Ords. Over the longer term, this outperformance persists. The chart below illustrates MVS Index's outperformance over the Small Ords from its base date on 31 December 2009 to 31 January 2019.

Chart 1 - MVS Index vs Small Ords
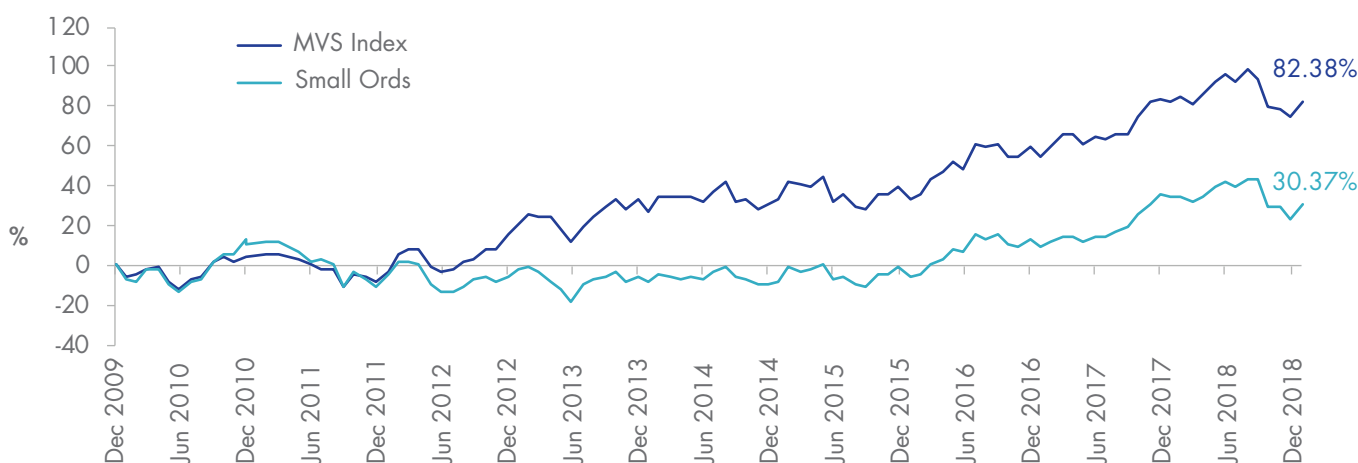
Source: Morningstar, 31 December 2009 to 31 January 2019. Results are calculated daily and assume immediate reinvestment of all dividends. You cannot invest in an index. MVS Index results do not include costs of investing in MVS. Past performance of MVS Index is not a reliable indicator of future performance of MVS.

	1 year	3 years (p.a.)	5 years (p.a.)	7 years (p.a.)	Since MVS Index base date
MVS Index	-0.12%	11.08%	7.44%	9.38%	6.84%
Small Ords	-3.06%	11.33%	7.37%	4.51%	2.96%
Difference	+2.94%	-0.25%	+0.07%	+4.87%	+3.88%

Source: Morningstar. Results are calculated daily and assumes immediate reinvestment of all dividends of MVS Index. You cannot invest in an index. MVS Index base date is 31 December 2009. MVS Index performance prior to its launch on 23 March 2015 is simulated based on the current index methodology. MVS Index returns do not include fees and costs of investing in MVS. Past performance is not a reliable indicator of future performance of MVS.

1   VanEck Vectors Small Companies Masters ETF (ASX: MVS) tracks the MVS Index by fully replicating it. MVS Index returns do not include the fees and costs associated with investing in the ETF. You cannot invest in an index. Returns of MVS compared to MVS Index are available at https://www.vaneck.com.au/funds/mvs/

How the dividend focus delivers superior returns

In *The Future for Investors: Why the Tried and the True Triumphs Over the Bold and the New*, Jeremy Seigel, the Russell E Palmer Professor of Finance at the Wharton School of the University of Pennsylvania, argued that dividends are the link between a company's profits and its value. Analysing over 45 years of data, Seigel demonstrated that stocks within the S&P 500 that offered the highest dividends also delivered the highest returns. Stocks that didn't pay dividends were the worst performing over the long term.

More recently, in the CFA Institute's Financial Analysts Journal, Conover, Jensen and Simpson (2016) in the article "What difference do dividends make" tested the link between dividends and company value beyond the 500 largest US companies in a study that also considered dividends in relation to a company's size. They found "small- and mid-cap stocks have higher returns when a dividend is paid" and that "the performance of non-dividend-paying small- and mid-cap growth portfolios has been abysmal. These portfolios report by far the lowest returns, and even worse, their risk exceeds that of all dividend-paying portfolios."

The experience in Australia supports these findings.

Australian small companies indices

In Australia, the Small Ords is used as a benchmark for small-cap Australian equity portfolios. The Small Ords is made up of the smallest 200 constituents of the S&P/ASX 300 by excluding the securities in the S&P/ASX 100.

While S&P Dow Jones Indices are the index provider of the S&P/ASX index series which include the Small Ords, the MVS Index has been developed by MV Index Solutions GmbH (MVIS)[2]. MVIS indices are specifically designed to underlie ETFs by incorporating both liquidity and diversification factors to produce investable indices.

For Australian small companies, MVIS introduced the MVIS Australia Small-Cap Index (Broad Small-Cap Index). The Broad Small-Cap Index includes only the most liquid Australian companies within the 90th to 98th percentiles by market capitalisation of Australian companies and trusts listed on ASX. As at 31 January 2019, the Broad Small-Cap Index had 129 companies.

Constituents for the dividend-focused MVS Index are selected from the Broad Small-Caps Index. The MVS Index includes only those companies from the Broad Small-Cap Index that did not omit their last dividend payment. As at 31 January 2019, the MVS Index had 88 stocks. Between the three indices: only the MVS Index cover similar stocks and sectors, there is one significant difference between the three indices. Only MVS Index includes a dividend screen.

The table below summarises the differences between the three indices.

Table 1. Differences between Australian small-cap indicies

Index	Focus	Weighted Average Market Capitalisation ($m)	Current number of securities	Current number of GICS sectors	Dividend Screen
MVS Index	Australian Small Companies	1,155.3	88	9	Yes
MVIS Small-Cap Index	Australian Small Companies	1,099.2	129	11	No
Small Ords	Australian Small Companies	1,436.9	200	11	No

Source: VanEck, Factset, as at 31 January 2019

---

2   MVIS is part of the VanEck group of companies.

MVS Index performance is driven by its dividend filter

In Chart 2 below we have added the Broad Small-Cap Index to Chart 1 above to determine whether the dividend screen produces significantly different performance. Chart 2 shows that MVIS's Broad Small-Cap Index is highly correlated to the Small Ords. Therefore the Broad Small-Cap Index is a good proxy for the Small Ords.

The MVS Index has significantly outperformed both indices from its base date on 31 December 2009 to 31 January 2019.

Chart 2 - Performance of small companies indices (%)
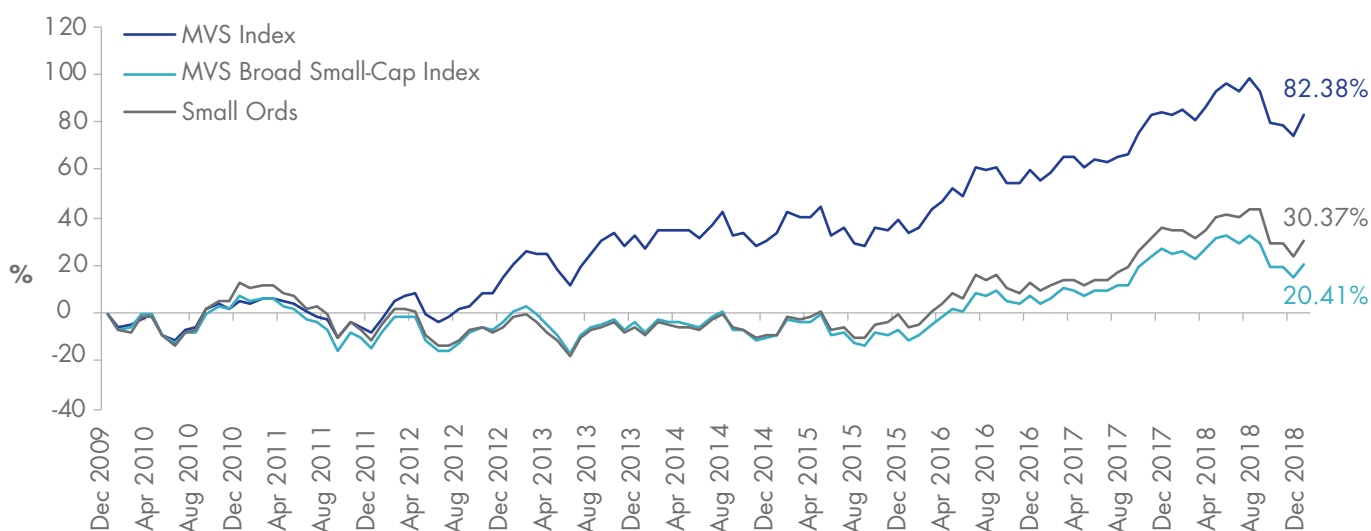
Source Morningstar, 31 December 2009 to 31 January 2019. Results are calculated daily and assume immediate reinvestment of all dividends. You cannot invest in an index. MVS Index results do not include costs of investing in MVS. Past performance of MVS's Index is not a reliable indicator of future performance of MVS

As the Broad Small-Cap Index and the Small Ords are highly correlated, it follows that the primary reason the MVS Index outperforms the Small Ords Index is its most significant difference – its dividend filter.

## How the dividend filter produces this outperformance
Conclusion #1: Quality tilt

Taking a current snapshot, the Broad Small-Cap Index has 129 constituents[3], 41 of which are excluded from the MVS Index due to the dividend filter. Chart 3 shows the return on equity (ROE) for 126 of the constituents of the Broad Small-Cap Index[4], including those excluded from the MVS Index. Sorting the population according to ROE from lowest to highest, the 41 stocks excluded by the dividend filter predominantly rank low in terms of their ROE.

---

3   As at 16 January 2019

4   Bloomberg only provided ROE data for 126 of the 129 constituents

## Chart 3 - Return on equity (ROE) %
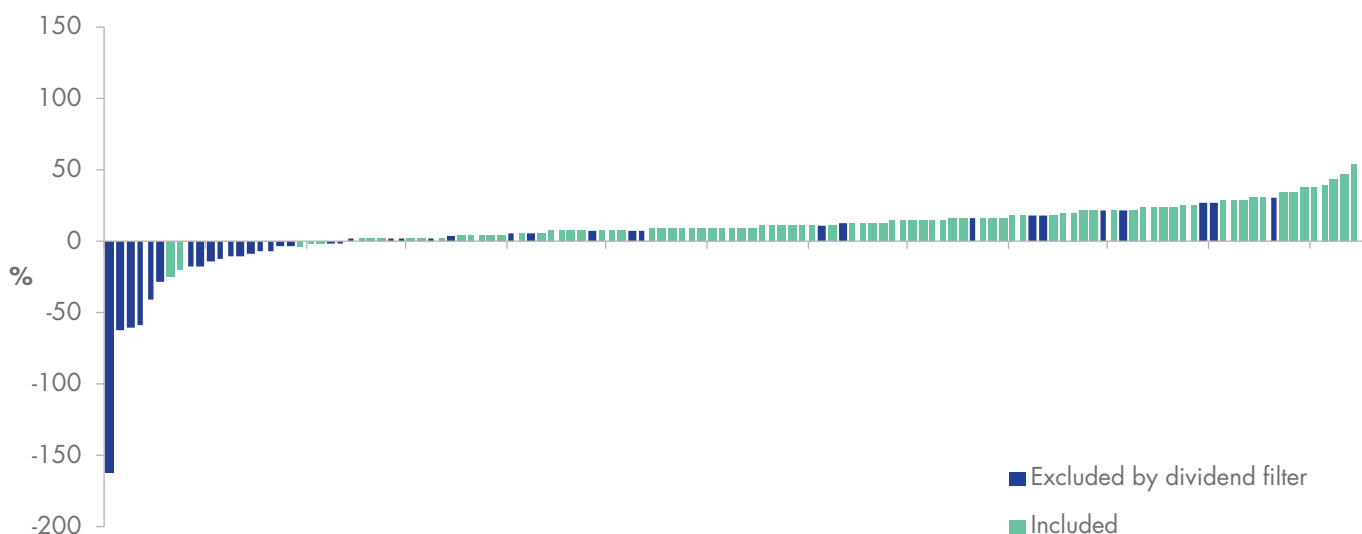
Source: Bloomberg, 16 January 2019

While the bias towards excluding stocks with low ROE is observable from the chart, the best measure of this tendency is to calculate the percentage of excluded stocks that are above or below the median ROE of 10.2. If there was no significant tendency this number would be close to 50%. We call this the bias statistic. The bias statistic for this data is 72%, a long way from 50%. That is, 75% of the excluded stocks are below the median ROE of 10.4%.

This is not a surprising result. The chart shows that many of the companies excluded have a negative ROE. In other words they are making a loss rather than making a profit. Loss-making companies typically cannot pay dividends so the dividend filter excludes many loss-making companies, particularly companies that have been long-term loss-makers.

Not surprisingly, high ROE has been identified as a measure of quality, as has earnings stability (Novy Marx, 2012).

Chart 4 shows the earning stability of 117 constituents of the Broad Small-Cap Index[5]. Earnings stability for this chart has been calculated as the standard deviation of earnings per share (EPS) growth over the most recent five years. The lower the standard deviation, the more stable a company's earnings growth, so you want more companies with a lower score, ie the right side of the graph.

Chart 4 – Earning stability
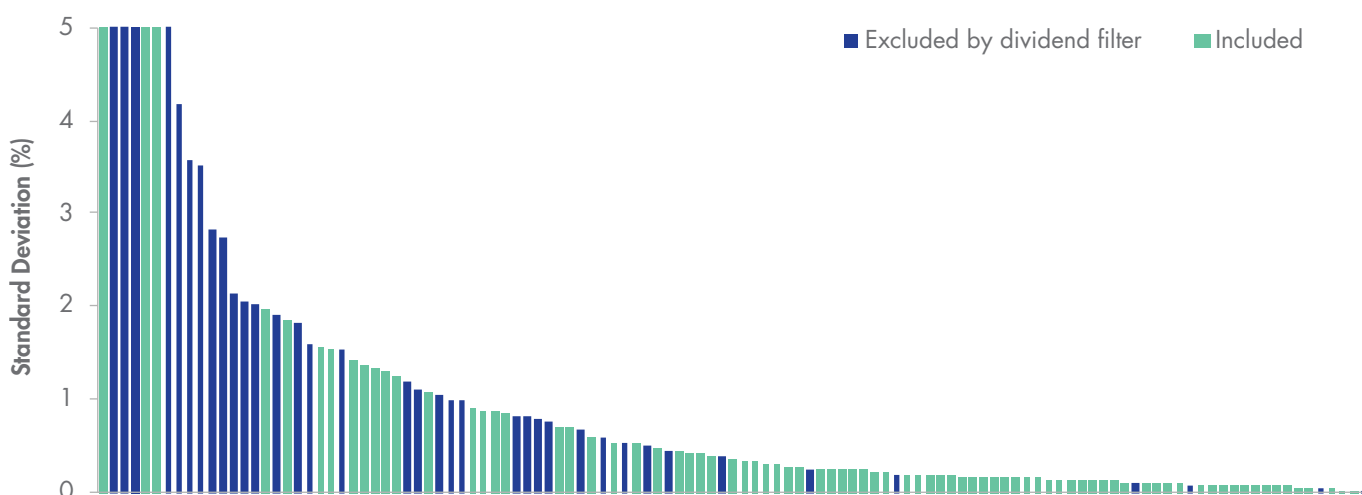
Source: Bloomberg, 16 January 2019

---

5   As at 19 January 2019. Bloomberg only provided data for 117 of the 129 constituents.

Stocks excluded from the MVS Index are predominantly those with high standard deviations, as can been seen from this chart. The bias statistic, as defined above, is 81%. In others words, 81% of the excluded stocks have a measure of standard deviation of greater than the median of 0.4, so fall to the left of the median.

Taking charts 4 and 5 together, the dividend filter excludes companies with poor return on equity and poor earnings stability. These two characteristics form part of the usual definition of 'quality' stocks. So, excluding non-dividend paying companies excludes lower quality companies.

Hence, the MVS Index outperforms because it has a quality tilt.

How the dividend filter produces this outperformance
Conclusion #2: Tilt to low volatility stocks

Chart 5 shows the rolling 360 day volatility of stocks in the Broad Small-Cap Index. Volatility is the standard deviation of day to day price changes. The higher the percentage, the more volatile the stock. The chart illustrates that the dividend filter is excluding many higher volatility stocks. The bias statistic is 82%. In other words, 82% of the excluded stocks fall to the left of the median of 37.3.

Chart 5 – 360 day volatility
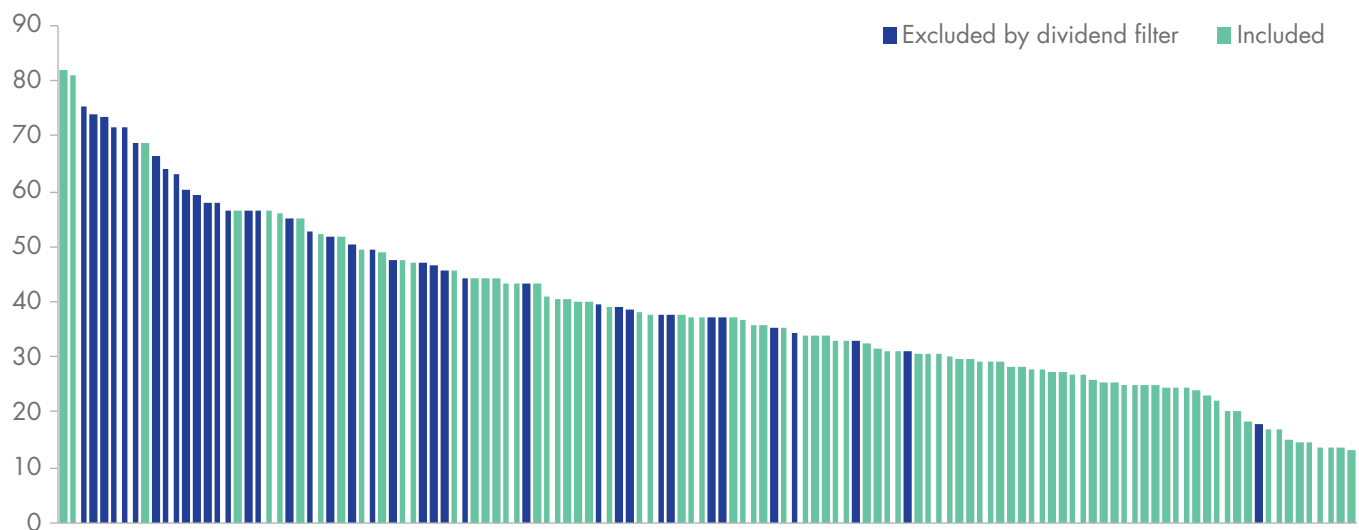
Source: Bloomberg, 16 January 2019

A tilt to low volatility stocks is a separate characteristic to the quality tilt described above. Numerous studies such as Chong & Phillips (2012) and Hsu and Li (2013) have concluded that a portfolio of low volatility stocks produces higher-risk adjusted returns than a portfolio of high volatility stocks.

Volatility

Investors are attracted to small companies because they offer more potential upside as they have greater potential to grow than larger companies. However, investing in this sector is subject to greater volatility compared with investing in larger companies Volatility is often measured by standard deviation in returns.

Risk adjusted returns

It was shown above that the MVS Index is tilted to low volatility stocks but there is a difference between the volatility of each individual stock in a portfolio and volatility of the portfolio itself because the volatilities of the individual stocks are not statistically independent of each other.

The standard deviation of the daily movements of the total portfolio for the period covered by the performance in Chart 2 is 17.97% for the MVS Index and 19.08% for the Broad Small-Cap Index (Source: Morningstar). The bias to low volatility stocks does not affect the volatility of the overall portfolio. The MVS Index's outperformance in absolute returns is therefore also an outperformance in risk adjusted returns.

Drawdown

For small company investors, negative outcomes or the potential for losses is a 'risk' that should also be considered. Drawdown is useful for investors to assess past losses. Both the depth of a fall from an historical peak and the pace of the recovery to a new peak can be measured. Investments that fall less and recover faster are more desirable.

Chart 6 below shows the drawdown of the MVS Index against the Small Ords since the MVS Index's inception. In summary:

- The maximum drawdown of the MVS Index was 17.64% versus the Small Ords' 28.84%

- The MVS Index recovered from its lows faster than the Small Ords Index.

Chart 6 – Drawdown of small companies indices
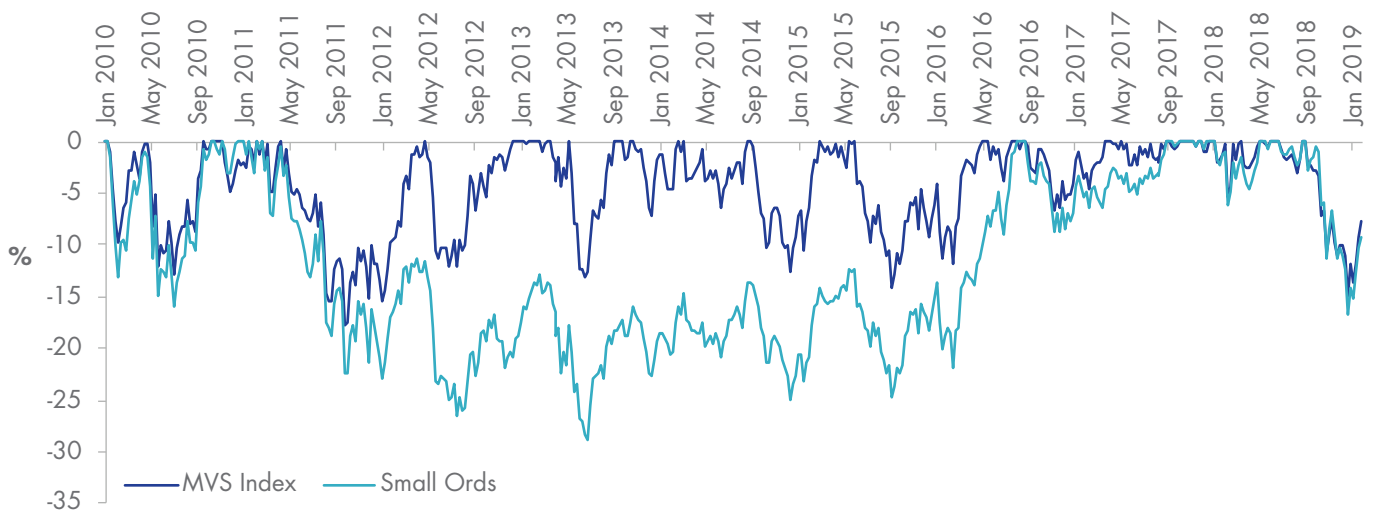
Source: Morningstar, 31 December 2009 to 31 January 2019. Results are calculated daily and assume immediate reinvestment of all dividends. You cannot invest in an index. MVS Index results do not include costs of investing in MVS. Past performance of MVS's Index is not a reliable indicator of the future performance of MVS

The conclusion that can be drawn from the drawdown graph is that by focusing on only dividend paying securities the MVS Index reduces the downside risk associated with investing in small companies.

The data shows that the dividend payers filter mines the same vein that a quality filter would. At the same time it also mines the vein that a low volatility filter would. But it is more than a combination of these two elements. By filtering out the bottom tranche rather than filtering in the top tranche, it works very differently to the usual approaches used in filters. This approach of keeping most of the starting set and excluding the bad apples, rather than trying to pick just the best apples, leaves the starting set largely intact. The advantage of this approach is that it reduces the problem of positive skew.

Avoiding the problem of positive skew

Ikenberry et al (1998) demonstrated individual stock returns are highly skewed. A very small number of stocks have very large returns and a very large number of stocks have below average returns. There is no easy way to predict in advance the upside outliers. The smaller the number of stocks you select out of the starting set, the greater chance you have of missing out on the gems so the lesser chance you have of an above average portfolio return. This is known as the problem of positive skew.

Rather than a concentrated portfolio of quality stocks or low volatility stocks, the MVS Index retains most of the starting set. The dividend filter only removes a tranche of stocks with the worst characteristics leaving intact a broad portfolio with a strong chance of catching the upside surprises.

The MVS Index currently has 89 constituents whereas the Small Ords has 200. On its face this would suggest that the Small Ords may be better at avoiding the problem of positive skew. The Small Ords' underperformance relative to the MVS Index shows that this is not the case.

Avoiding the problem of positive skew is a balancing act. Too few stocks and the chance of missing out is too high. Too many stocks in a portfolio weighted by market capitalisation and the stocks in the long tail each carry too little weight to have an impact on the total portfolio. For example, if a stock with a weighting of 0.2% is an outlier by doubling in size, all that it adds to the return of the total portfolio is 0.2%. This would be not much different to not having held the stock at all.

So in terms of the Small Ords, 200 stocks is too many in a portfolio weighted by market capitalisation to add any real impact to returns. The MVS Index benefits from having far fewer stocks.

Other indexing methods

While the empirical evidence supports the use of a dividend paying screen for Australian small companies, alternate indices exist that utilise a different metric for their smart beta Australian small-cap offering. The S&P/ASX 200 Select Small Companies Index selects constituents which have experienced, in the most recent two years, annual earnings which must each be positive. Positive earnings is not an indication of balance sheet strength, like companies that pay a dividend. MVS Index has outperformed this S&P/ASX alternative smart beta index.

Chart 7 – Performance of smart beta small companies indices
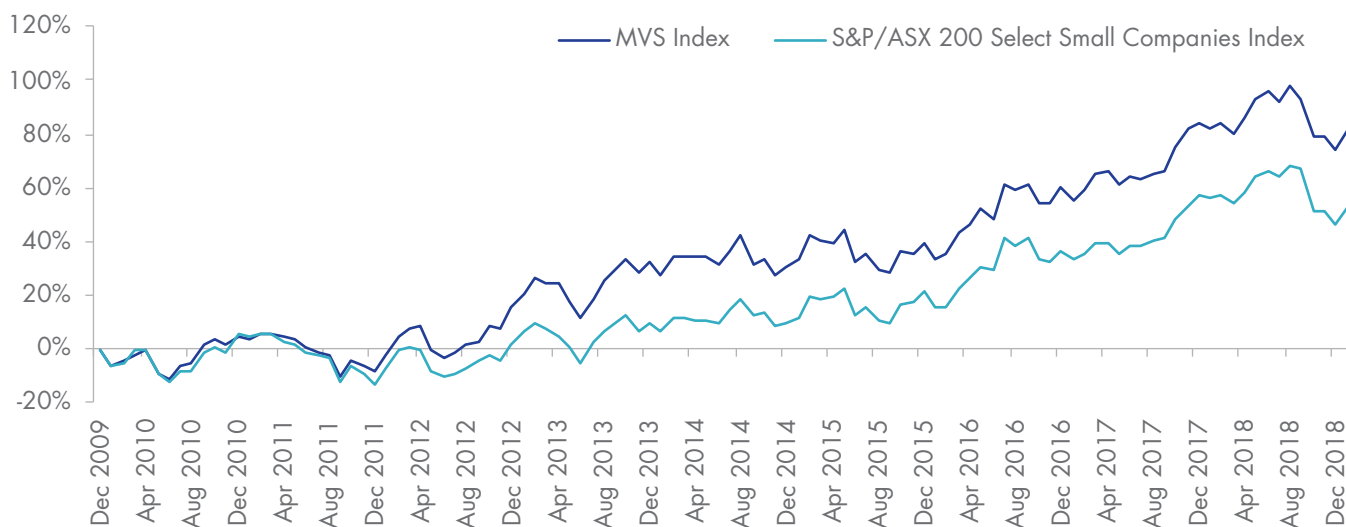
Source Bloomberg, 31 December 2009 to 31 January 2019. Results are calculated daily and assume immediate reinvestment of all dividends. You cannot invest in an index. MVS Index results do not include costs of investing in MVS. Past performance of MVS's Index is not a reliable indicator of future performance of MVS.

Conclusion

VanEck Vectors Small Companies Masters ETF (ASX: MVS) is a fund listed on ASX that aims to track the MVS Index by fully replicating it. In a single trade MVS gives investors a portfolio of dividend paying small companies that exhibits the same quality, low volatility and other characteristics of the MVS Index and compared to active peers its performance is above the median manager over most trailing periods – a remarkable outcome for a passive fund in an asset class traditionally dominated by active managers.

Chart 8 – Performance of Australian small companies funds
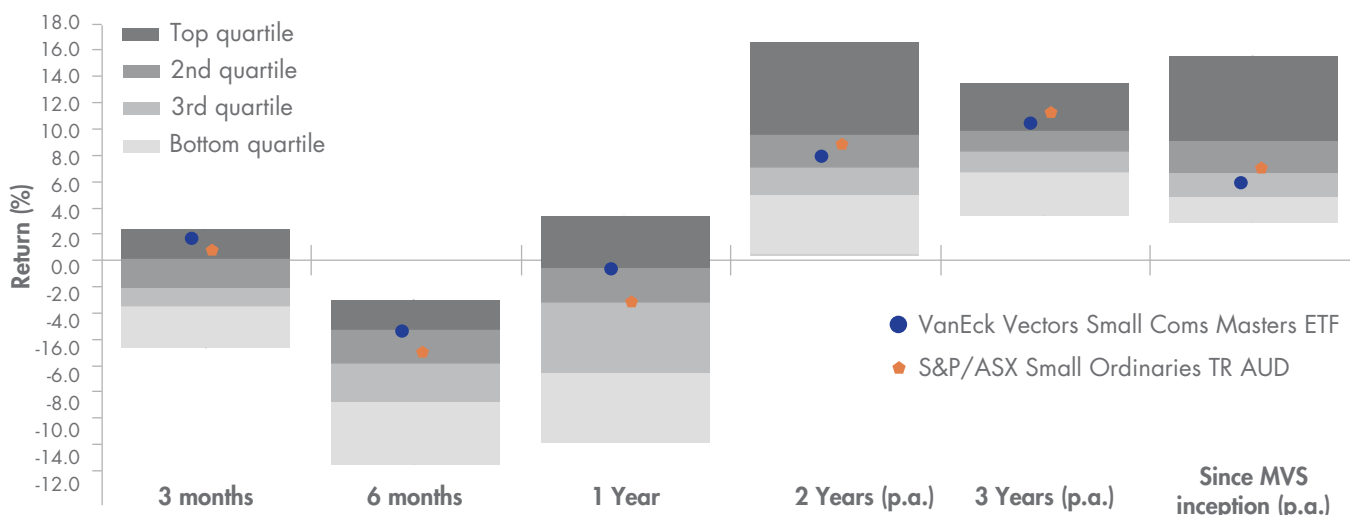
Source: Morningstar, as at 31 January 2019. MVS inception date is 26 May 2015. Australian Small-Cap Equity Managers includes Equity Australia funds invest primarily in small- to mid-sized Australian companies. Results are calculated daily and assume immediate reinvestment of all dividends and include fees and costs incurred in the funds but exclude brokerage costs, buy/sell spreads and taxes. Past performance is not a reliable indicator of future performance.

MVS is a smart beta alternative to actively managed small companies funds.

References

Chong, James and G Michael Phillips. 2012.
"Low-(Economic) Volatility Investing." The Journal of Wealth Management Vol 15, No 3

Conover, C Mitchell, Gerald R Jensen and Marc W Simpson. 2016.
"What Difference Do Dividends Make?" Financial Analysts Journal Vol 72, No 6

Graham, Benjamin. 1973.
The Intelligent Investor (4th Rev. ed.). Harpers & Row, New York, New York.

Hsu, Jason and Heifei Li, 2013.
"Low-Volatility Investing." The Journal of Index Investing Vol 4, No. 2

Ikenberry, David, L, Richard L. Shockley, and Kent L. Womack. 1998.
"Why Active Fund Managers Often Underperform the S&P 500: The Impact of Size and Skewness" Journal of Private Portfolio Management, Vol 1, No 1

Novy-Marx, Robert. 2013.
"The Quality Dimension of Value Investing." Working Paper

Novy-Marx, Robert. 2012 (revised 2014).
"Quality Investing." Working Paper

Seigel, Jeremy J. 2005.
The Future for Investors, Crown Publishing, New York, New York

Contact us

For more information visit

vaneck.com.au

+612 8038 3300

in Follow us

@vaneck_au

Important notice: