

## Size matters, if you control your junk

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"Size Matters, if You Control Your Junk" by Asness et al, January 2015

Small cap funds have long been a portfolio staple. The size premium is something that most portfolio construction practitioners know about and often use to clients' advantage. We all know that most good small cap fund managers outperform their small cap benchmark index, sometimes by huge amounts, and that small cap indices do tend to outperform larger cap indices, albeit with significant periods of under-performance. The logic behind this has always been in line with portfolio theory – small caps are less researched and therefore, it's a less efficient market. Add good quality company research to portfolio management skill and fund managers can outperform in this sector. So, particularly for higher risk wealth accumulators, an allocation to small caps makes a lot of sense.

However, many practitioners may not be aware that there has been an academic war going on over the existence of the size premium. Most recent market performance (and I mean, the past 20 years) suggests that the premium does not exist. In fact, since it was first "discovered" in the early 1980s, it's been hard to find.

Some of the issues include the size premium's extreme variability, its concentration amongst micro-caps (and there are obviously micro-cap funds that try to take advantage of that), the fact that most of the excess returns seem to occur in January, the lack of a clear size premium outside the US equity market, and whether it's really just be a liquidity premium. In fact, slowly, but surely, through a significant amount of research, the small-cap premium has started to lose its shine. Although it is one of the three factors French and Fama use in their famous model, even they consider it the poor cousin to the value premium. Other researchers have suggested that the size effect did not exist at all but is instead the result of data mining (who would ever suggest that the financial services industry would be guilty of data mining!).

This recent paper by Cliff Assess and his colleagues at AQR Capital and University of Chicago first outlines seven "challenges" that the size premium has been facing in the literature:

- It produces only small returns, with marginal statistical significance;
- It disappeared in the early 1980s, after being discovered;
- It is concentrated only amongst the smallest, most illiquid stocks;
- It seems to produce most of its excess returns in January;

- It may be the result of the fact that size is measured using market prices, so if market prices are incorrect for some reason, a stock will "look" small;
- It may be a proxy for illiquidity; and,
- It is not significant in international markets.

The paper then looks at the size premium in a different way – whether there is another factor in play which might mask the small cap premium, being "quality". Quality is a set of characteristics that investors are willing to pay for including dimensions such as profitability, low risk, stability of earnings and high payout ratios. In this paper, "quality" consists of four components: profitability, profit growth, safety and payout.

And indeed, Arnot et al show that when you control for quality, the size effect "re-appears" – and it is significant, consistent, stable and is not time or market specific.

The authors show that most small caps are actually "junk" (or, more precisely, not "quality"). And, if we assume junk tends to underperform quality (this is the "low volatility" effect), the junk may be masking the size effect. The paper shows that once stocks are sorted for quality, the size effect comes into play again. In a nutshell, small junk stocks outperform large junk stocks and small quality stocks outperform large quality stocks. But, on the whole, as a percentage, more small caps are junk than large caps. Further, the inverse is also true – if you control for size, quality outperforms junk. In other words, the small cap premium is fighting a junk headwind. Control for that and you can reap excess returns.

In fact, when controlled for quality, small stocks outperform large stocks by about 50bps per month. This holds across all time periods, as well as various markets and using a number of different definitions of size, some of which are not based on price. In fact, according to this study, there are no reliably detectable differences across time from 1957 to 2012.

The finding throws up a number of issues to consider:

- The study tends to reinforce the idea that low volatility stocks (which tend to be quality stocks) outperform. This is in contrast with traditional asset pricing models which tell us that higher risk stocks should outperform.
- In this study, even when size is not defined by price (it is defined by, say, revenue instead), the size premium exists. This suggests that some risk factor may be missing in studies.
- Liquidity is not as related to small cap returns as you might think. Junk stocks tend to be less liquid and there was little evidence of a liquidity premium for these stocks.

Further, this paper also provides us with information we might consider when it comes to investing in small caps. To my mind, some of the issues it raises include:

- The argument for using an index fund for small cap exposure is not strong (unless it tilts for factors) as an index may consist mostly of junk stocks;
- If a style of small cap fund were to be preferred, it may be that a "quality" manager might be best; and,
- Active small cap managers should be able to outperform their benchmark. Picking through the junk to find the more scarce quality stocks can yield strong, long term results. Some might call that alpha!

Related to this last point, perhaps the "alpha" shown by active small-cap managers is not really alpha. Perhaps it is just a form of smart beta. Perhaps a quantitative smart-beta approach based on quality factors in small caps could offer similar levels of outperformance to active stock picking managers.

All in all, this paper offers a good summary of past literature and debate in this area, and extends the debate on the size premium. For this alone, it is worth your time. [It's is a long paper – you need to at least read the abstract, introduction, and conclusion, but then you could just skim the rest.]

[Read "Size matters, if you control your junk"](#)