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Consistent Outperformance Based on Published Information – Or When Reality Defies Theory

Successful active management is widely accepted to be a difficult undertaking, as financial markets are believed to be fairly efficient. Achieving outperformance based on publicly available historical information is seen as impossible, according to financial markets theory.

Therefore, all the more surprising are our findings that a systematic investment process selecting ‘superior’ companies based on published fundamental company data leads to sustained outperformance

According to the efficient market hypothesis (Eugene Fama, 1970), financial markets process all available information quickly and incorporate them into current market prices.

As only future, unexpected information has an impact on market prices and this information, by definition, is yet unknown, prices follow a random walk. The result of active portfolio management therefore is also a random walk and, owing to transaction costs, not just a zero-sum game but a loss-making exercise.

In the meantime, however, it is widely accepted that the strong form of the efficient market hypothesis is not consistent with market reality. There is sufficient evidence of market anomalies; furthermore, behavioral finance has documented many forms of irrational behavior on the side of market participants. Modern financial theories like the “adaptive market efficiency” (Andrew

Lo, 2004) can reconcile these anomalies, to some extent, with the theory. But the fact remains that markets are still seen to be fairly efficient in the long term, and active management therefore is a very difficult undertaking.

Empirical evidence seems to support this view, as the majority of active managers fail to beat their benchmarks (see “S&P indices versus active funds score card”). The results of private investors are even worse (see Dalbar’s “Quantitative analysis of investor behavior”), as they underperform a simple buy-and-hold strategy using mutual funds owing to bad timing of transactions and incurred costs. Many investors therefore have ‘thrown in the towel’ and turned to indexing – that is, the cost-efficient replication of market-cap-weighted indices. The pros and cons of index investing based on such indices is currently a hot topic under the title “smart beta.”

However, a minority of active managers still

seem to outperform on a regular basis. Owing to its exposure to random processes, such outperformance does not necessarily signal superior know-how. Past performance alone is not a sufficient criterion for evaluating active managers. It is essential to look at the investment process generating the numbers in order to establish the likelihood of future outperformance.

Most traditional active managers focus their time and energy on forecasting the financials of the companies they follow. Outperformance therefore is the result of getting the financial forecasts right. Success is thus based on the analytical resources that the manager can bring to bear. A database of all publicly traded stocks worldwide contains over 30,000 names today. Professional investors reckon that a single analyst can follow no more than 30 stocks in order for his research to be really value-adding. Therefore, a true global coverage of the available investment universe is almost impossible due to lack of research resources.

One can address the challenge of generating outperformance also in another way. Instead of forecasting future results for a small number of stocks, one can analyze the published information of all listed stocks in order to separate companies with good fundamentals from such with bad fundamentals. The key question in this regard is whether using exclusively historical data to make such an analysis can serve to generate outperformance or, alternatively, if such information is discounted by the market so quickly and efficiently that it becomes useless.

The following analysis was based on a set of 13,500 companies globally, which as a prerequisite published quarterly fundamental data over the period from 2002 to 2014. Our analysis looks at 17 fundamental factors, measuring things like growth

in earnings, profit margins, the leverage in the balance sheet, or the dividend yield. All factors are computed using exclusively published data from the four dimensions growth, profitability, balance sheet quality, and valuation. Based on these factors, all companies in the universe can be ranked according to their fundamental quality, separating 'good' from 'bad' companies. Ultimately, we define the difference in performance between portfolios of 'the best 25 percent' and 'the worst 25 percent' companies as the performance of the factor.

Figure 1 shows the average factor performance of all 17 factors. Our goal is to measure the performance differences over time, starting one week before and ending 24 weeks after the publication of the respective data item. The entire dataset for each company comprises 50 quarterly results for all 17 factors, a total of over 4.5 million time series. We are not aware of any other study using a comparable amount of data points. The graphs in Figure 1 show the average factor performance for three investment universes (global equities/developed markets, global small caps, and emerging markets) and the average for all three universes.

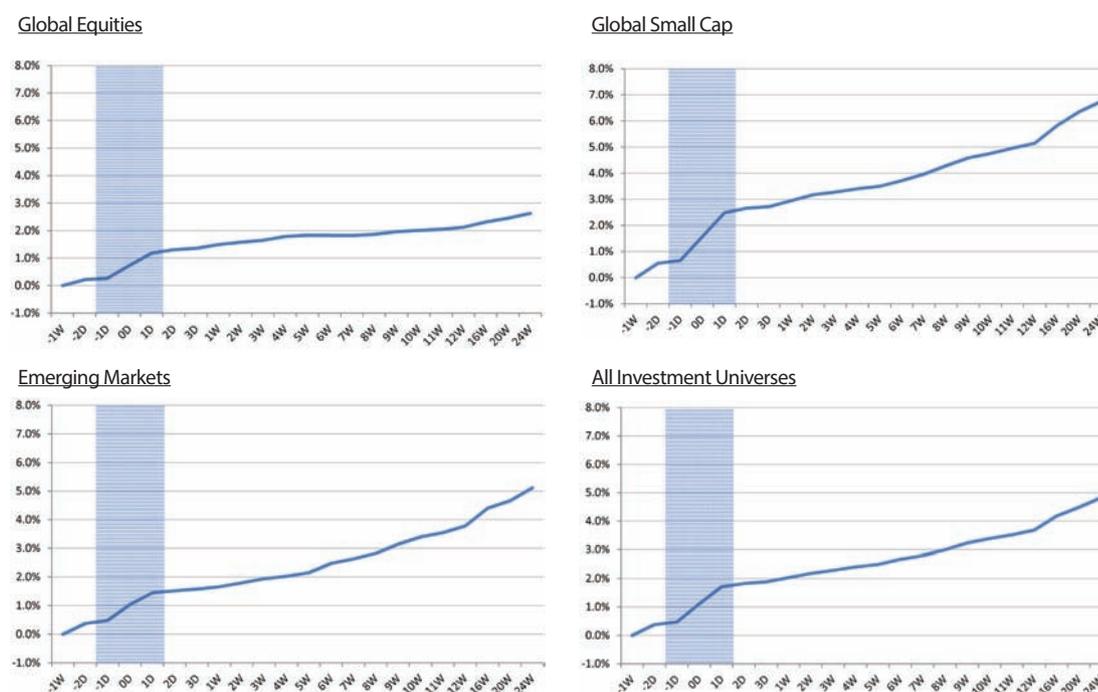
For the entire investment universe, the results show that 'good' companies outperform 'bad' ones by about 2 percent on the days when results are published (-1D to +1D on the x-axis), as highlighted by the shaded area in the graphs (Figure 1). However, the cumulative performance continues to rise and reaches 4 percent after 12 weeks. Similar results can be seen when looking at the other three graphs depicting the same results for global equities, global small caps, and emerging market equities (Figure 1).

These results reveal the following interesting aspects:

A portfolio of 'good' companies outperforms a portfolio of 'bad' ones consistently. 'Good' and 'bad' companies are defined by looking at the fundamentals of these companies in the four dimensions growth, profitability, balance sheet quality, and valuation.

The performance differential between the portfolios is largest during the time when new information is published. This implies that the best results, in terms of achieving relative performance, can indeed be garnered when one is capable of forecasting future results correctly. As

Figure 1: Persistence of factor outperformance over time after publication



discussed above, this undertaking is fraught with many problems and is not very promising.

Much more surprising, mostly for the proponents of efficient market theory, however, is the fact that 'good' companies continue to outperform 'bad' ones, even weeks after the data have been published.

The graphs in Figure 1 show that such outperformance is visible in all investment universes. The results are most impressive for small caps and emerging markets, but a positive effect can also be measured for global equities in developed markets, even though these companies are arguably better researched and information efficiency should be higher.

The results suggest that financial markets are also not so efficient in the long term as to render active management useless. The interesting question is, which forms of active management promise the best results and will generate true added value in the long run?

Artico Partners is an asset management company based in Zurich, specializing in quantitative and fundamental stock selection. Our main focus is to identify and invest in good companies globally.

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