Index Inclusion is More Impactful than Warren Buffett's Berkshire Hathaway

-By Alexander Yokum & Jason West

Executive Summary

Every company wants Berkshire Hathaway to buy their stock. Managed by Warren Buffet, Berkshire has a track record of successful investments and people believe in his strategy. As a demonstration, the average company that Berkshire initiates into outperforms the market by 3.1% the day the information is made public. However, this pales in comparison to the impact that simple index inclusion and exclusion can have on stock prices. IHS Markit analyzed the impact of index inclusions and exclusions into the S&P 500 (large cap), S&P 400 (mid cap), and S&P 600 (small cap). Interestingly, the S&P 600 had by far the largest price impact while the S&P 500 was the least notable.

Volume & Fund Analysis

Typically, on the date of an S&P index change announcement, volume will be 200-500% of average volume. On the date the issuer moves out of or into the index, volume tends to be 150-250% of average volume. The truly extreme volume days occur when the ETF's of the major index firms rebalance – typically the day before the actual index change – when volume tends to be 500-1,800% of average volume. The effect is dramatic because these index fund initiations/liquidations can often account for 5-10% of an issuers' shares outstanding. Over the next several months, on a smaller scale, some active shareholders will change their positions as well. Even for active funds, market cap is often a decisive factor in the investment decision because mutual fund prospectuses will typically identify the index the mutual fund will try to beat.

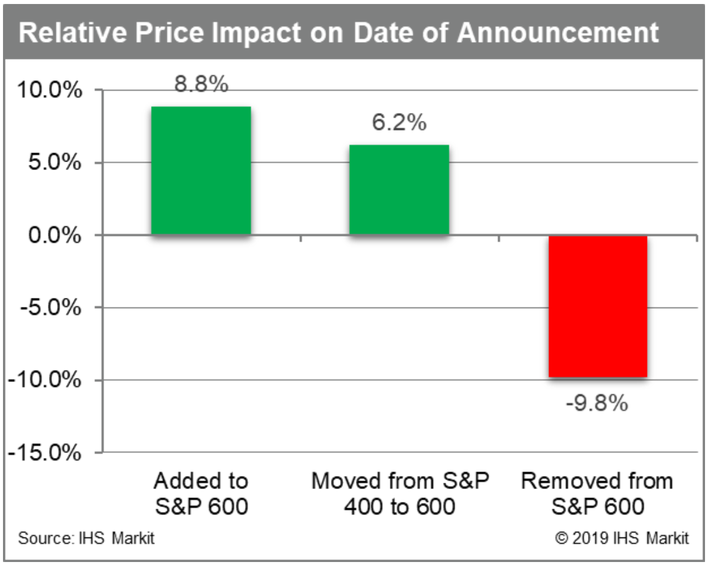
Methodology

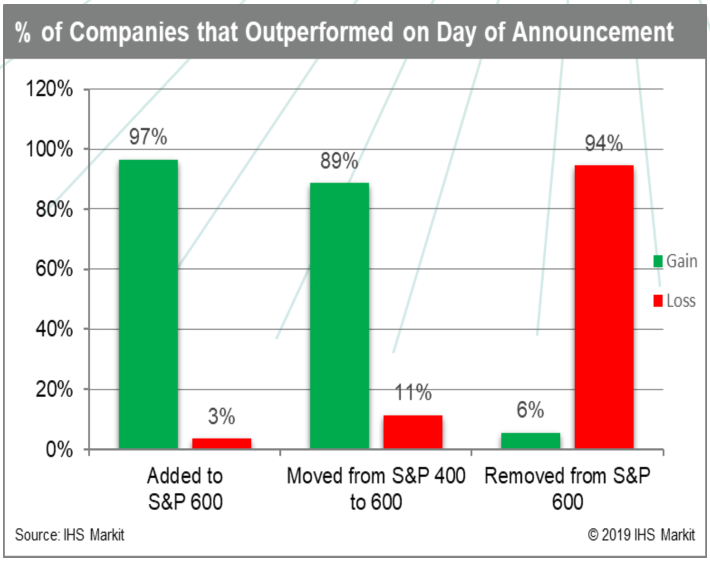
Our sample-set includes the last two years where we identified nearly 300 examples of index changes. We did not include index changes that were related to companies that were acquired. All index change announcements occurred after hours so we defined "date of the index change announcement" as the first trading day investors could react to the news.

S&P 600

Our analysis found a material impact to stock prices on the announcement of addition/deletion to the S&P 600, which may be surprising as it includes just 3% of the total stock market value. Being added to this index, without previously being in the S&P 400 or S&P 500, has resulted in an 8.8% relative stock price outperformance on the first trading day after the announcement. Being removed from the index (due to market cap falling below index thresholds) has resulted in a 9.8% decline.

One of the biggest surprises from our analysis was the trading impact of being "demoted" to the S&P 600 from the S&P 400. In this case, companies gained an average of 6.2% on the trading day of the announcement. This is counterintuitive because one would suspect that a stock would decline when it was demoted to a smaller index. However, when we analyzed companies' funds, we found that small cap index funds hold a larger percentage of shares outstanding than mid cap index funds. The result of this is a net inflow of index shares resulting in buying pressure. Summarized in an analogy, "would you rather be a big fish in a small pond or a small fish in a big pond?"





As would be expected in an efficient market, all of the price abnormality typically occurred on the date of the announcement, as market participants anticipate the future impact of fund rebalancing. No statistically significant trend could be found on the date of the fund moves, date of index inclusion, or over the next few months.

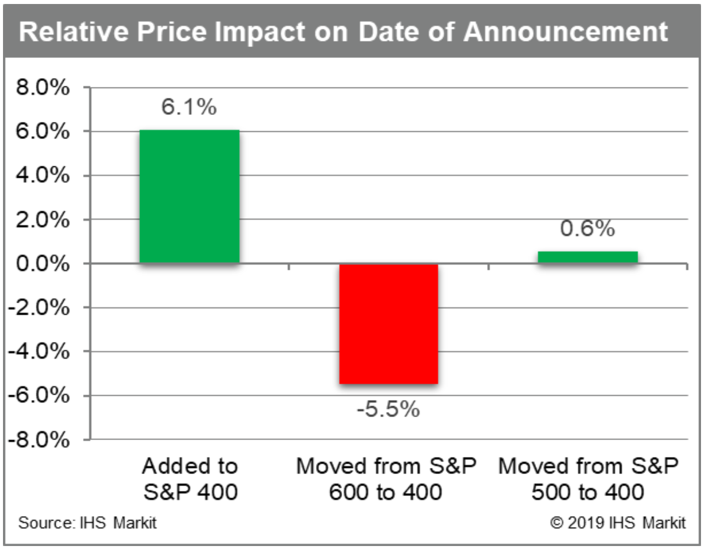
Also, these relative price moves were very consistent across the examples that we analyzed (rather than being skewed by a few outliers). For example, 97% of companies that were added to the S&P 600 outperformed on the trading day following the announcement, while 94% of the companies that were removed from this index underperformed on the day of the news.

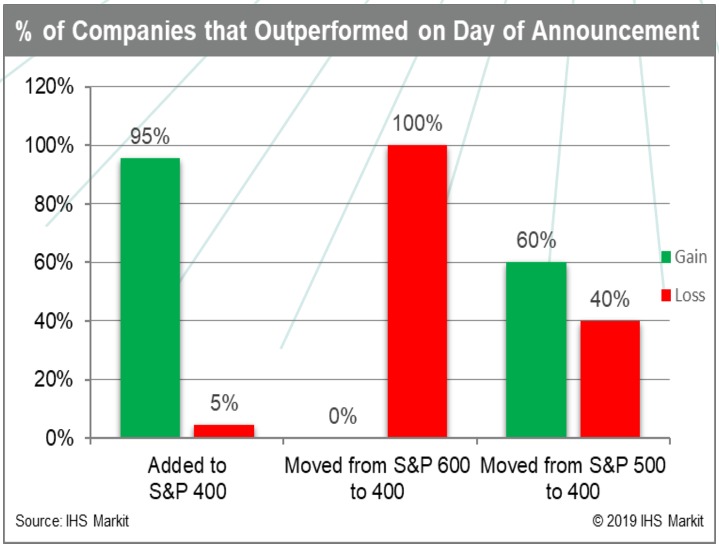
In order to be added to the S&P 600, you must have a market cap of $600M to $2.4B and meet several other requirements that can be found here.

S&P 400

The impact of the S&P 400 is more impactful than the S&P 500 but less than the S&P 600. Being added to the index without having previously been in the S&P 600 or S&P 500 has resulted on average in a 6.1% relative stock price outperformance on the trading day after the announcement.

Similar to the S&P 600, we found that companies that are "promoted" to the larger index actually underperform on the news. For example, companies fell an average of 5.5% after the announcement of a move to the S&P 400 from the S&P 600. This is again explained by the fact that small cap index funds hold a larger percentage of shares outstanding than mid cap index funds. The result of this is a net outflow of index shares resulting in selling pressure. This phenomenon is also found to a lesser extent with companies that were "demoted" from the S&P 500 to the S&P 400 as they on average outperformed the market by 0.6%.

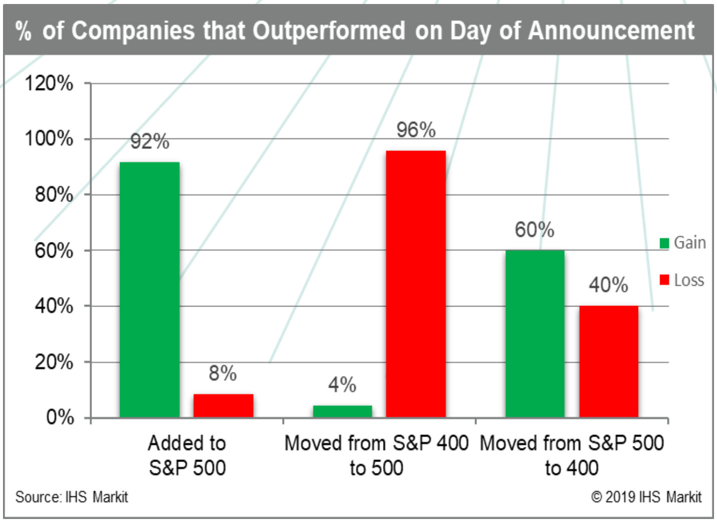


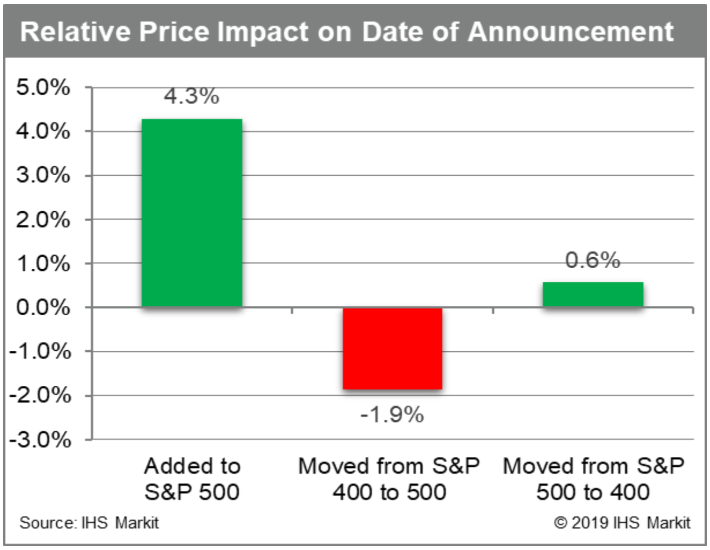


All of the price abnormality occurred on the date of the announcement, while no statistically significant trend could be found on the date of the fund moves, date of index inclusion, or over the next few months. In order to be added to the S&P 400, you must have a market cap of $2.4B to $8.2B and meet several other requirements that can be found here.

S&P 500

The S&P 500 represents approximately 80% of the U.S. stock market but index changes actually had less impact than the S&P 400 or the S&P 600 on the day of the announcement. Being added to the index without having previously been in the S&P 400 has resulted on average in a 4.3% relative stock price outperformance on the date of announcement. Companies that are upgraded to the S&P 500 from the S&P 400 fell 1.9% on average on the date of the announcement. Again, this may be a surprise because one would suspect that a stock would rise when it was promoted to a larger index.





Similar to the S&P 400 and S&P 600 all of the price abnormality occurred on the date of the announcement. In order to be added to the S&P 500, you must have a market cap greater than $8.2B and meet several other requirements that can be found here.