IQ INSIGHTS

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The Changing "Index Change Effect"

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The Profits that Still are, and aren't, there for the Taking When an Index Adds a New Stock

As index investing soared in popularity in the early 1990s, the "index change effect" emerged as an opportunity to take advantage of the jump in a stock's price that occurred after an index announced it was adding the stock to its roster. But market behavior has evolved considerably over the past 20 years and what was once a source of found money has become more complicated. Here, we discuss how to extract the maximum returns of an index addition in today's market landscape.

What is the Index Change Effect?

Each year, major stock indices such as the S&P 500 must incorporate new companies to replace the ones that have dropped off the index or were gobbled up by mergers and acquisitions.[1] In the 1990s, data showed that when a stock's inclusion was initially announced its price surged higher as index funds rushed to purchase it.[2] Stocks would then trade sideways until the effective date of the inclusion, before again spiking in the lead-up to that day's close. After that, with the index funds having satiated their demand, the price then tended to revert down near to where the stock was trading before the effective date.[3,4]

To capture the initial price increase, investors would need to already be holding the stock before the announcement. This meant that index funds — which generally only hold stocks already in or at least already scheduled to be in the index — really had no way of capturing the first part of index change effect. They could, however, capture the second part. By simply purchasing the stock after the announcement but before the effective date, they could pick up the stock at a discount relative to its first-day closing price. Even after the price reverted to its pre-effective date levels that discount translated into higher returns compared to what was offered by other funds that crowded into the first-day close.

Why are Some Questioning the Viability of the Index Change Effect?

Demand from index funds is more robust than ever, and, if anything, there is even greater incentive for companies to be included in an index. And that's part of the problem. As interest in index inclusions grew over the years, hedge funds and other types of active managers began front-running the index change effect and essentially arbitraged it away. These investors would anticipate which stocks were about to be included in an index and arrange to purchase it either before or right on the day of the announcement. As a result, by the time the announcement was made there were already a huge number of market participants holding the stock ready to sell and meet the index funds' demand. With so much supply in the market, the second part of the effect — when a second wave of index buyers previously pushed prices higher into the effective date close — became watered down and eventually disappeared altogether.

Indeed, research from Bank of America Merrill Lynch,[5] Instinet[6] and other sources has shown that on average over the past seven years stock prices for companies added to the S&P 500 Index have actually fallen from the morning after the announcement to the effective date of the index change. The evolving nature of these patterns is shown clearly in Figures 1 and 2. What was once a two-part bounce has been reduced to a single bump that can primarily only be captured by those able to speculate on the additions and get in their orders before the announcement-day close.

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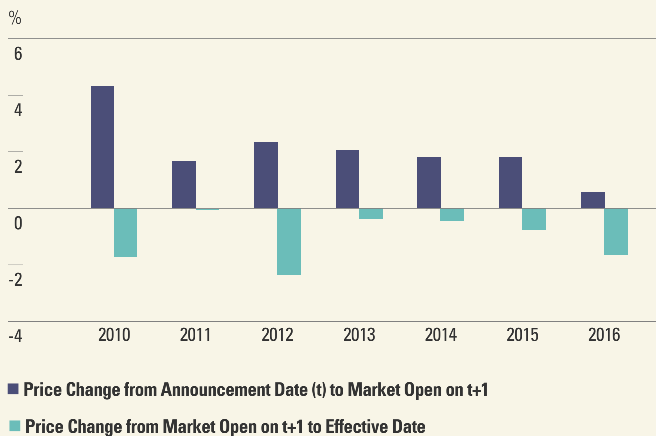
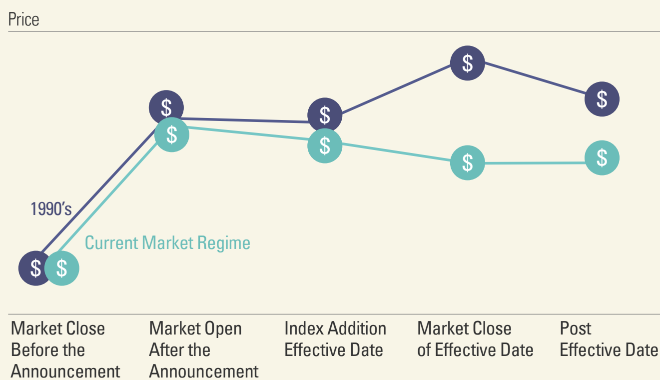
Figure 1: Price Performance for Names Added to the S&P 500 Index



Source: State Street Global Advisors (SSGA), BAML, Instinet as of December 2016. Past performance is not a guarantee of future results. The dark blue bars represent the stock price increase resulting from the initial announcement. The light blue bars show the performance of the same stock from its open after the announcement through the effective date. Announcement Date (t): The date the index addition is announced. (t+1): The business day after the index addition is announced. Effective date: The date the index addition goes into effect.

Figure 2: The Evolution of Index Change Trading



Source: SSGA as of September 2015.
The above chart is for illustrative purposes only.

Are these Changes to the Index Change Effect the Same Across the Board? Or are there Some Markets Where "Effect" is Still in Effect?

It's true not all indices and index changes behave the same way. The Russell reconstitutions, which at one time closely mirrored the patterns in the S&P, have become a mixed bag, with some additions moving the "wrong way" from what higher index demand would imply[7] and some moving more in line with what was seen in the 1990s. MSCI index changes often move more in line with indexer demand,[8] perhaps because higher liquidity and information constraints on international portfolios tend to hold down the number of hedge funds and other index arbitrage players operating in those markets.[9]

Is there Anything Index Funds can do to take Advantage of Index Additions?

Some recent media reports have suggested that the failure of index funds to capture the index change effect is somehow the fault of the index funds, a product of their blindly following the index rules to exactly follow changes in the benchmark the moment they become official.[10] We think this portrayal is not only unfair, but based on outdated and, at this point, misleading data.

The reports cite recent research from Winton Capital comparing passive managers purchasing newly included stocks at the market close on the effective date with active managers buying the stock at close on the day of the announcement (which is generally not possible without speculating on the inclusion).[11] The study showed that passive funds tracking the S&P 500 Index are losing nearly 20 basis points compared to the active funds front-running the index changes.[12]

But the Winton Capital research is based on S&P index data from 1990 to 2014. As noted earlier, the market landscape has changed dramatically over the past two and a half decades. A good chunk of the index change effect driving price swings during the first decade of that period no longer even exists, for active or passive managers. Moreover, the prescription implied by the reports — that index funds would be better off buying the stock right after the announcement instead of waiting for the effective date — is, as already noted in Figures 1 and 2, exactly the wrong approach for today's environment.

As managers that stake their risk-adjusted returns on tracking the index, index funds have no way of front-running a stock the way a hedge fund or other active arbitrager can. That said there are some things they can do.

At State Street Global Advisors (SSGA), we’ve done our own analysis showing that over the past seven years the best way for an index fund to recapture some profits from an index addition wouldn’t have been to buy the stock right after the announcement, but to wait until after most of the speculation-driven inventory has sold off. Simply by delaying purchase from the morning after the announcement until the effective date, our analysis shows, an investor would have picked up an additional 5 basis points in returns.[13]

We’ve learned to time our trades around index changes to when it makes the most sense for the stock in question. Depending on the index and the level of market interest generated by a particular addition, sometimes that means buying the stock soon after the announcement, sometimes that means buying it on the effective date, and sometimes that means post-trading after the effective date. There is no one-size-fits-all solution. Importantly, indexing is not a blinkered strategy where managers always time their purchases exactly to changes in the index. Rather, we are well aware of the impact of index changes on a portfolio, and we are constantly weighing the trade-offs between minimizing tracking error and minimizing trading costs in light of all the challenges and opportunities presented by today’s markets.

[1] Aye M. Soe and Srikant Dash, “The Shrinking Index Effect: A Global Perspective,” Standard & Poor’s, November 2008.

[2] Maria Kasch and Asani Sarkar “Is There an S&P 500 Index Effect?” Federal Reserve Bank of New York Staff Reports, November 2012.

[3] Effective Date: Follows the announcement date. The date the index addition goes into effect.

[4] Lawrence Harris and Eitan Gurel, “Price and Volume Effects Associated with Changes in the S&P 500 List: New Evidence for the Existence of Price Pressures,” The Journal of Finance, Vol. 41, No. 4 (September 1986): pp. 815–829.

[5] Bank of America Merrill Lynch, as of March 2015. Data from 2010 to 2014.

[6] Instinet, as of March 2015. Data from 2010 to 2014.

[7] Jim Quinn and Frank Wang, “The Impact of Adds and Deletes on the Returns of Stock Indexes,” Applied Finance Program, Hass MFE Program, March 2003.

[8] Merilin J. Simons and Laurens Swinkels, “The Price Effect and Beta Changes of Stocks Added to or Deleted from the MSCI Emerging Markets Index,” Erasmus Universiteit Rotterdam, November 12, 2012.

[9] Rajesh Chakrabarti, Wei Huang, Narayanan Jayaraman, and Jinsoo Lee, “Price and Volume Effects of Changes in MSCI Indices — Nature and Causes,” Journal of Banking & Finance, vol. 29, issue 5 (2005): pages 1237–1264.

[10] “The Hugely Popular, Wholly Legal Way to Game the Stock Market,” Bloomberg, July 7, 2015.

[11] S&P normally publishes index changes after market close.

[12] Christophe Bernard, “Hidden Costs in Index Tracking,” Winton Capital Management, July 2014.

[13] This is an estimate of the loss avoided by delaying the trade, and is based on our assumptions and analysis. There is no guarantee that the estimate will be achieved.

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