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Corporate Finance Practice

What is stock index membership worth?

Gaining—or losing—a place in a major stock index has only short-term impact on share price: about 45 days.

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What is it worth for a company to be included in an important equity index such as the S&P 500? A great deal, it would appear, judging by how frequently executives admit that the planning and timing of acquisitions, divestitures, and other strategy moves are influenced by the effect their actions may have on gaining or preserving membership in an equity index club.

Or is it? Research we conducted into the phenomenon of inclusion in the S&P 500 indicates that executives are right to believe that gaining entry to or dropping out of a major index does indeed move a company's share price. But that effect is short-lived, we found, and inclusion in a major index is not a factor in a company's long-term valuation in the capital market.[1] The implication: executives should plan and pursue a strategy irrespective of whether it excludes them from a major index or gains them access to one.

On the surface, the arguments for being a member of an index have appeal because many large, institutional investors track indexes such as the S&P 500 by investing in its stocks. Once a stock is added to the index, it is argued, demand will increase dramatically—and along with it the share price—as institutional investors rebalance their portfolios. And as long as that demand continues, so will the stock's price premium.

Adjustments to the S&P 500 index in 2002 did nothing to dispel the myth. When seven non-US companies—including Unilever, Nortel, and Shell—were removed from the index and replaced by the same number of US-domiciled companies, the departing companies on average lost nearly 7.5 percent of their value in the three days following announcement. New entrants—including UPS, Goldman Sachs, and eBay—gained around 3 percent over the same period.

A short-lived premium

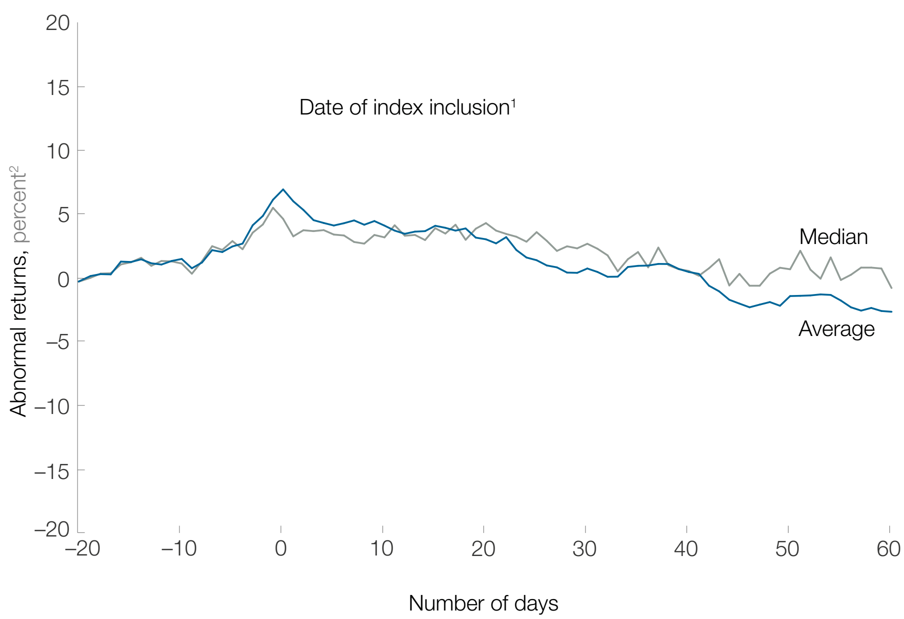
We decided to test whether inclusion provided a longer-term strategic advantage, and we analyzed the price effect of the inclusion of 103[2] US-listed stocks in the S&P 500 index since December 1999. Academic research[3] has focused largely on short-term price patterns around index changes to determine how investors might structure profitable trading strategies around inclusion. We focused instead on longer-term price effects to see whether a place in the index creates a lasting price premium.

To determine whether or not index inclusion made a difference, we estimated the abnormal stock returns over an 80-day test period (from 20 days before the effective date of inclusion to 60 days after). Clearly, the best measure of abnormal returns[4] is whether the new entrants enjoy a pattern of lasting positive returns, driven by the inclusion itself. This was clearly not the case. Indeed, although abnormal returns in the ten days prior to the effective date did amount to a maximum average around 7 percent and a median around 5 percent, they returned to zero within 45 days after the effective date (Exhibit 1). In terms of statistically significant positive returns, the effect disappears even sooner—after a mere 20 days.

This result is consistent with the phenomenon of liquidity pressure driving up share prices initially

Exhibit 1

Hello . . .



[1]For 103 US companies listed on S&P 500 index between December 1999 and March 2004.
[2]Buy and hold abnormal returns (BHAR) vs. market model.
Source: Thomson Financial; Standard & Poor's; McKinsey analysis

as investors adjust their portfolios and prices subsequently reverting to "normal" when portfolios are rebalanced. In the end, there was no permanent price premium for new entrants to the S&P 500. This underlines the fact that the value of a stock is ultimately determined by its cash flow potential, unrelated to membership in a major equity index. As the S&P 500 is probably the most widely and intensively tracked index worldwide, we speculate that this holds for other major equity indexes, such as the FTSE 100 and the Dow Jones Industrial Average, as well.

We also looked at deletions from the S&P 500 index over the same period and found similar patterns of temporary price changes around announcement (Exhibit 2). The price pressure following exclusion from the S&P 500 faded after 40 to 50 days.

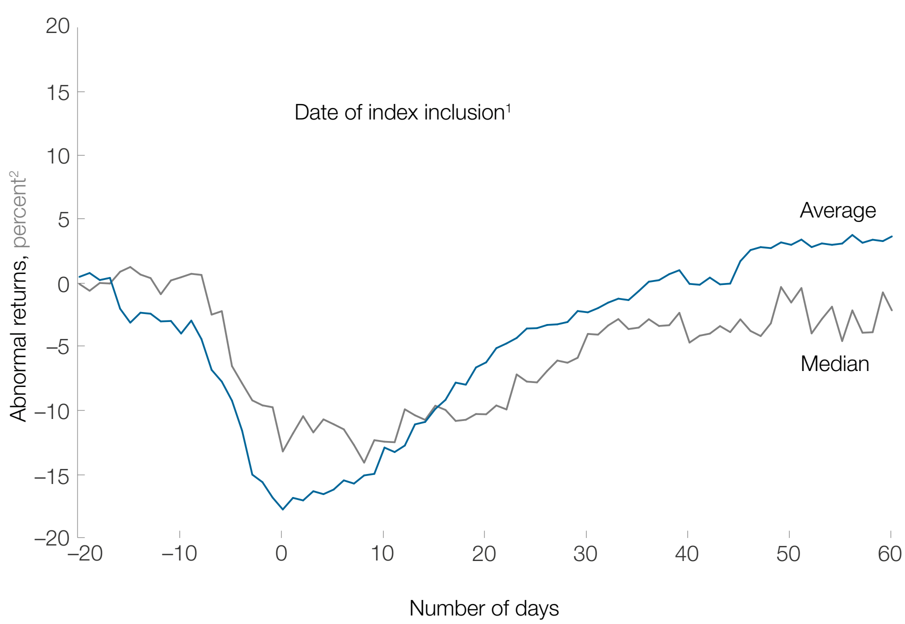
Implications for executives

Since no lasting effect on a company's share price can be expected from the simple inclusion or exclusion effect alone, executives should not refrain from spin-offs and divestitures that would exclude a corporation from a major index. Nor should they pursue major transactions solely because these would gain them entry. Of course, other factors behind such transactions could well influence a company's share price and should be taken very seriously.

On the other hand, extending our findings and recommendations to emerging-market stocks may be inappropriate, because their inclusion in international equity indexes could represent a form of "recognition" of quality, sparking analyst coverage and investor interest in US or European markets. There, the result

Exhibit 2

. . . and good-bye



[1]For 41 US companies delisted on S&P 500 index between December 1999 and March 2004.
[2]Buy and hold abnormal returns (BHAR) vs. market model.
Source: Thomson Financial; Standard & Poor's; McKinsey analysis

could well be a permanent increase in the company's stock price as it gains access to these equity markets. ○

1 *See also,* for example, B. G. Malkiel and A. Radisich, "The growth of index funds and the pricing of equity securities," *The Journal of Portfolio Management*, 2001, Vol. 27, Number 2, pp. 9–21; R. A. Brealey, "Stock prices, stock indexes and index funds," *Bank of England Quarterly Bulletin*, 2000, Vol. 40, Number 1, pp. 61–8; R. Dash, "Price changes associated with S&P 500 deletions," *Standard & Poor's*, July 9, 2002.

2 A total of 116 stocks were added to the S&P 500 during this period including 1 due to a name change, 4 that were subsequently acquired or delisted and 8 that we eliminated as outliers because of their extremely negative returns after inclusion. (Excluding the outliers had no effect on our conclusions; including them would have resulted in even lower abnormal returns for the entire sample.)

3 See, for an exception, M. Beniesh and R. Whaley [2002], "S&P 500 index replacements: a new game in town", *Journal of Portfolio Management*, Vol. 29, Number 1, pp.1–60. The authors conclude that there is a permanent price impact from index inclusion when measuring excess returns of added (or deleted) stocks versus the market return. They acknowledge significant excess returns of added stocks versus the market already long before index inclusion, but they do not incorporate this in their analysis.

4 To account for the return patterns of new entrants prior to index inclusion, we first estimated a simple market model for each of the included stocks over the 250 trading days preceding the start of the test period. From this we estimated the abnormal buy and hold returns (BAHR)i for included stocks around the effective date of inclusion following the method used by S. P. Kothari and J. B. Warner [1997], "Measuring long-horizon security price performance, *Journal of Financial Economics*, Vol. 43, Number 3, pp. 301–339.

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