

Is Stock Index Membership for Sale?

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S&P 500 Index Membership Involves Discretion

For the Russell index the R^2 of the relation between membership and a dummy for the size rank membership criterion is 99%.

S&P Equity Indices Policies and Practices Methodology: The S&P 500 index “measures the performance of the large-cap segment of the market. Considered to be a proxy of the U.S. equity market ...”.

Criterion for addition to membership:

(a) US domicile and US listing, (b) market cap, (c) liquidity, (d) public float as a fraction of total shares outstanding, (e) prior quarter and sum of prior four quarter's earnings > 0 , (f) minimum time since IPO.

Criterion are neither necessary or sufficient.

Only 342 (44.2%) of the 773 firms added to S&P 500 index between 1980 and 2018 meet all of criteria (a) through (f). 4,522 other firms that met the criterion were not admitted.

Are these firms repeat rejects?

Is Inclusion Related to the Purchase of a Bond Rating from S&P?

$100 \times \text{Addition Dummy} = \alpha + \beta_1 \text{purchase } \underline{\text{new}} \text{ rating (S\&P or Moody's) dummy} + \beta_2 \text{purchase } \underline{\text{new}} \text{ S\&P rating dummy} + \text{controls for satisfaction of criterion (a), ..., (f) and } \Delta \text{ GICS sector weight in S\&P 500 versus Total Market Index}$
 $= \bullet - 0.091 \times \text{purchase } \underline{\text{new}} \text{ rating} + 0.16 \times \text{purchase } \underline{\text{new}} \text{ S\&P rating} + \text{controls.}$
↖ significant at the 5% level

Purchase of a new S&P rating increases Prob(Inclusion) by 0.16%

Unconditional Prob (Inclusion) = 0.16% → 773 stocks out of 479,203 firm-quarter observations on firms not already in the index at the time of an addition event: $773/479,203 = 0.16\%$.

Note: Prob(Inclusion | meet all criterion (a) through (f) & not already in index)
 $= 7\% = 342/(342+4,522)$.

Prob(Inclusion | meet all criteria, not already in index, purchase new S&P rating)?

Consider the null that S&P Purchase does not affect inclusion.

Rejecting the null does not mean accepting the alternative

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For Sale: Bargain
S&P Membership.

- Firms that the S&P Index Committee views as representative of the large-cap segment of the market are also firms that tend to buy new S&P ratings.

Do GICS sector weightings in S&P Total Market Index capture large-cap weights?

Deviations from sector weights in the S&P 500 index $\equiv 0$ by construction.

Does consideration of S&P MidCap 400 and S&P SmallCap 600 stock capture the large-cap segment of the market?

- Recency effect – ‘membership for sale’ explanation takes as given that the index committee knows of new S&P bond ratings. Are new S&P bond ratings touted on an S&P in-house website?

Bond Ratings

A ballpark figure for cost of new rating and the perpetuity of annual ratings would provides a measure of

- what it costs to get the Index Committee's attention.
- a minimum for the value associated with membership.

If membership is to be sold, there is 0 marginal benefit from providing membership to firms that already buy S&P ratings for their debt issues.

Perhaps examine the effect of purchase TOTALLY new S&P rating dummy.

- How often does a firm with existing bonds rated by S&P choose to (i) not obtain a rating for a new bond rating or to (ii) obtain a rating from Moody's/Fitch but not from S&P?
- How often does a company purchase ratings from more than one agency?

Alternative ways to buy Inclusion

- i) Purchase a Sustainable Financing Opinion from S&P.
- ii) Purchase an ESG Evaluation from S&P.
- iii) Lobbying by a large shareholder of both the firm seeking inclusion and S&P Global.

Tang, Yan and Yao (2021) “The Determinants of ESG Ratings: Rater Ownership Matters”

Who are the large holders of stock in S&P Global?

2002 S&P Rule Change

“[To interpret] reduced purchases of S&P ratings by foreign firms [as] a reaction to no longer being able to “buy” an improved chance of getting into the index – as opposed to a reduced need to issue bonds for any other reason – it is informative to compare the results with purchases of ratings from Moody’s.”

Is the comparison informative if purchases of Moody’s ratings were rare? The difference in decline in foreign firm purchases of S&P ratings versus Moody’s ratings might be significant, decline in purchases from Moody’s itself is tiny.

➤ How common were purchases of Moody’s ratings by US-listed foreign firms prior to the 2002Q3 S&P rule change rule change?

➤ If foreign firms’ purchases of ratings before the rule change reflected both

- (i) a need for a rating in order successfully distribute a bond issue and
- (ii) a desire to purchase membership by buying a rating from S&P,

then decline in purchases from S&P should have been accompanied by a switch to purchases from Moody’s. If bond issues continued, S&P declined and Moody’s didn’t increase, then ratings seem unnecessary for the distribution of bond issues. 7

Subsequent Performance: (i) Profitability, (ii) ROA

- Sample: Discretionary Ins and Discretionary Outs

$$Performance_{i,t} = \beta_1 Post_t \times Discretionary In_i + controls_{i,t} + \varepsilon_{i,t}. \quad \boxed{\hat{\beta}_1 < 0}$$

- Sample: Discretionary Ins, Rules-Based Ins, and Control Group

$$Performance_{i,t} = \beta_1 Post_t \times Added_i + \beta_2 Post_t \times Added_i \times Discretionary In_i + controls_{i,t} + \varepsilon_{i,t}. \quad \boxed{\hat{\beta}_2 < 0}$$

Could the Index Committee have the skill or desire to pick underperformers? No.

If discretionary additions do tend to be associated with new ratings purchases, then discretionary additions will be associated with bond issues. Bond issues may be related to subsequent poor performance for the same reasons IPOs and SEOs are associated with subsequent poor performance.

How does observing subsequent poor performance distinguish the “sale of membership” and a “better representation by including bond issuers” explanations of the Index Committee’s exercise of its discretion?

This is great research since it is rigorous.

Whether results are “novel” should not determine whether they are interesting.

Thus, consideration of the null that ‘membership is not for sale’ is important.

⇒ Very Enjoyable Paper