

Is Indexing Ready For The 21st Century? Part II

The Cutting Edge

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Fixing Broken Index Funds—Transparency Is A False God

A criticism turned on every critic is that it is far easier to be a critic than it is to make constructive suggestions. When it comes to fixing today's broken index funds, the necessary changes are clear and relatively simple. My recommendations for investors and fund advisers are uniformly constructive. Indexing started on a tiny scale, but the success of indexing has created a trillion dollar-plus industry. Indexing continues to increase its share of managed financial assets, though the rate of increase has slowed recently. The use of benchmark indexes as index fund templates was a brilliant idea, as long as few assets were indexed. Today, that brilliant idea is not even a good idea for some indexes. The success of indexing makes abandonment of some popular benchmark indexes as index portfolio

templates the only sensible course for investors. Also, indexing advocates must push to eliminate the practice of publishing changes in indexes used as portfolio templates before the index fund has an opportunity to trade.

The Benchmark Index Composition Change Effect

A basic principle embraced by generations of active portfolio managers is that they guard the secrecy of their trading plans until those plans have been fully implemented.^[1] Portfolio managers are absolutely correct to keep this trading information to themselves. Transaction transparency is the greatest problem of 21st century indexing. Transaction transparency was not an obvious problem when indexing was a fringe activity. In the 1970s, changes in a benchmark index had no meaningful impact on the prices of the stocks involved in the change, because no one was using the index as a template for managing a significant amount of money. Today's most popular benchmark indexes were designed as references for market and portfolio performance measurement, not as recipes for portfolio construction. When benchmark indexes are used as portfolio templates, the publication of index changes before an index fund trades can have a serious adverse effect on the fund's performance.

Until recently, the effect of indexing's growth was to improve the performance of index stocks, as new index funds increased demand for these equities. The earliest evidence that I have seen of this effect of indexation on index portfolio performance is a 1988 article by Bill Jacques, but there have been many other papers on this topic.^[2]

S&P 500 portfolios no longer absorb more and more of each member's shares, because ongoing growth in demand for S&P 500 member companies' shares is a thing of the past. Standard & Poor's has even argued recently that, somehow, markets have changed the way they react to index composition changes.^[3] In truth, there is good reason to believe that any brief period of mitigation in the "S&P Effect" from composition changes is over. I anticipate continued substantial market impact from changes in the index, in spite of S&P's efforts to tone down the impact of those changes.

Standard & Poor's recently added Amazon.com to the S&P 500. The price behavior of Amazon.com described in my column in the previous issue of this journal was certainly less dramatic than price movements in Yahoo! and JDS Uniphase when they were added to the index a few years ago. The decline in merger and acquisition activity in the U.S. early in the current millennium, and S&P's tardy embrace of float-weighting, have been more responsible for the recent decline in market impact from changes in the S&P 500 than any change in the way the market reacts to index composition changes. The continuing high cost of S&P 500 composition changes will be more apparent when U.S. M&A activity, particularly cross-border merger activity, increases.

Today, index funds have committed to hold a substantial fraction of the shares of every company in the S&P 500 and the Russell 2000. The shares are held in portfolios that attempt to track these indexes as closely as possible. This means that when there is a change in one of these indexes, any stock added to the index experiences substantial demand as it is gobbled up by index portfolio managers. Any company removed from these indexes declines significantly as it is jettisoned from index portfolios. This practice has a devastating effect on index fund performance that the indexing pioneers did not anticipate.

In fairness, there was no reason, at the birth of indexing in the mid-1970s, to anticipate that indexing would become so popular that changes in an index—and the consequent reaction of managers using the index as a template—would have a substantial market impact. The increase in the price of Amazon.com—from the time S&P announced Amazon's membership in the S&P 500 until the change was effective—caused S&P 500 index investors to pay a higher price for the stock. Even if a portfolio manager traded as soon as possible after the announcement to capture some of the "S&P 500 Effect," she paid more for the stock than it would have cost to buy it the day before the index change was announced. If the portfolio change was made at the scheduled time of the index change—as it was in most index funds—the index fund investor paid a 12 percent to 13 percent premium over the pre-membership price of Amazon.com, solely because of its new index membership.

The adverse cost effect of adding a stock to the S&P 500 is no longer mitigated by a steady increase in the share of assets benchmarked to the S&P 500. As Jacques' calculations demonstrated, when the share of assets tracking the index was growing, newly indexed portfolios provided growing demand for the shares of index members—old members as well as new. The last thing an investor wants, however, is a portfolio based on a popular index that is losing its relative popularity. The ongoing membership performance effect Jacques found in the 1980s has vanished as the S&P 500's market share of portfolio assets has leveled off. In fact, the S&P 500's share of indexed assets may be in the early stages of decline.

The relatively faster growth in non-S&P 500 exchange-traded funds (ETFs) and net redemptions in the Vanguard 500 mutual fund are evidence that an ongoing performance enhancement effect is probably a thing of the past for S&P 500 member stocks. [4] Market share changes in funds indexed to the Russell 2000 are less clear, but the work of Chen, Noronha and Singal (2006) is bringing new attention to the performance problems that stem from using these two popular indexes as fund templates. This excellent paper and the re-evaluation of indexing choices that it will stimulate will almost surely stop and probably reverse the historic growth in S&P 500 and Russell 2000 indexed portfolios. Another recent paper, Siegel and Schwartz (2006), casts doubt on the S&P 500 reconstitution process from a different perspective, but it also supports the criticism offered here. A recent survey by Pensions and Investments (Calio, 2006) found that “[p]lain vanilla indexing [is] ... stagnant” in terms of attracting new institutional money.

Perversely, index name recognition has played a significant role in the successful marketing of index funds. The growth of some funds based on popular indexes is also stimulated by the fact that index funds based on the most popular indexes are usually characterized by slightly lower nominal expense ratios than index funds tracking less-popular indexes. In a larger fund, operating expenses are spread over a larger asset base. Funds based on less-popular indexes often have fewer assets and a higher expense ratio. However, the evidence is strong and growing that the transaction-cost penalty associated with index composition changes in S&P 500 and Russell 2000 funds outweighs the slightly higher expense ratio of index funds tracking less-widely used indexes (Chen, Noronha and Singal).

Transparency In Portfolio Composition Changes Is An Unmitigated Evil

Although precise growth rates are hard to measure, even for index publishers, the rate of growth in funds using some of the overly popular indexes appears to have been slowing, even though the reasons to choose different indexes are not yet widely understood. Nonetheless, the indexes that present the greatest index portfolio performance problems are still the most popular fund indexes, measured by assets currently under management. The easiest way for advisors to deal with this problem is to recommend funds based on less-popular indexes, and to talk to clients about the problems caused by index fund transaction transparency. Advisors can help their clients understand the adverse effect on indexed portfolios that comes from publishing index changes before a fund has a chance to implement the changes in its portfolio.

Active portfolio managers and thinking index managers do not want to reveal trading plans before the trades have been implemented in the portfolio. Unfortunately, under the existing rules for all index funds—both conventional mutual funds and indexed ETFs—index composition changes must be published or be otherwise transparent before the fund can trade.

The publication of index changes takes a number of forms. In some cases, like the Russell 2000, the rules of the index are essentially in the public domain. Sophisticated investors can readily evaluate the probable changes in the Russell 2000 during the months before the changes are official and for nearly another month before they become effective. The result of the annual Russell reconstitution is a high level of trading activity over a roughly six-month period. The annual Russell reconstitution jamboree offers ample opportunities to improve performance relative to the index by trading early or late in the securities to be added to or deleted from the Russell 2000. While many Russell 2000 index funds beat the index, the index and funds that track it generally perform poorly relative to other small-cap benchmarks. [5]

In the case of the S&P 500, a committee makes composition change decisions. These changes are announced after the market close on the day the committee acts, and the changes are implemented some days later at the market close. The Amazon.com discussion in my column in the March/April 2006 issue of this journal illustrated the effect of the announcement of Amazon.com's elevation to the S&P 500. The roughly 7 percent price jump from the close on November 14 to the opening on November 15, and the approximately 5 percent further price gain by the implementation date, was a reaction to the fact that at least 11 percent of Amazon.com's floating shares would be purchased by S&P 500 index portfolios by the market close on November 18. The eventual addition of Google (to pick an obvious example) to the S&P 500 should elicit a similar pattern.

To the extent that numerous and, collectively, large portfolios track benchmark indexes, public announcement is certainly the only fair way to change a benchmark index. However, it makes no sense for an investor to invest in benchmark index funds if a comparable fund is available that uses a different, less popular and undisclosed index change methodology. If a fund can trade quietly before any composition change in the fund's template index is revealed, the fund's shareholders will buy shares of the company added to the index at a lower price. It is as simple as that. Indexing, which was originally designed to improve investor performance by eliminating unnecessary costs associated with active management decisions and portfolio turnover, often fails to fulfill that promise because of the costs associated with transparent portfolio composition changes in overly popular indexes.

Transparency is widely advocated in the securities industry. In most cases, transparency is, as Martha Stewart would say, “a good thing.” But transparency is not a virtue in the case of index fund transactions, as it requires the announcement of a portfolio composition change before the portfolio manager has a chance to trade.

Investors do not know the contents of actively managed mutual funds until some time after portfolio changes have been made. Until 2004, U.S. mutual funds were required to report their portfolios every six months with a 60-day lag. For example, the December 31 portfolio would be reported on the following March 1. Since October 2004, mutual fund portfolios have been reported quarterly with the same 60-day lag. This means that once every three months, anyone who cares can learn what the composition of the fund portfolio was 60 days earlier.

The disclosure process for indexed portfolios is very different from the actively managed mutual fund standard. Index funds must trade to implement index changes that are known to all observers. Like indexed mutual funds, changes in portfolio composition for indexed ETFs are similarly determined by index providers that have to treat everyone equally in disclosing index changes. While total transparency in portfolio composition generally reduces the average secondary market trading spread in the shares of an ETF, this transaction transparency penalizes the investment performance of all the shareholders in

an exchange-traded index fund. This penalty is imposed almost every time the index composition changes. The transaction cost associated with secondary market trading in ETFs is an episodic cost borne entirely by those who enter and leave the ETF. For a long-term investor, any ETF share trading costs are dwarfed by the substantial ongoing costs of investing in a benchmark index fund where all changes are totally transparent and any scalper can trade with or in advance of the fund manager—with an obvious increase in the fund's cost of changing its portfolio.

It is certainly appropriate that an investor know a fund's investment objective, but few, if any, investors in either indexed or actively managed funds care what short-term changes have been made in the fund's portfolio composition in an attempt to meet that objective. The cost minimization and investment performance objectives of indexing can be best attained without the performance penalty that comes from trading transparency—in other words, without the preannouncement of the fund's trading plans.

Some index fund investors may be hung up on total transparency. For those poor souls, benchmark index funds are not going to go away. Existing index funds will continue to be, well, benchmark index funds with trading transparency. The rest of us deserve the opportunity to forego index transparency in pursuit of better performance.

Interestingly, I find that many investors are not aware that total trading transparency is a requirement for all index funds, including "active index funds." Active index funds are ETFs that use a quantitative model (or a similar technique) to determine changes in the fund's portfolio composition. Active index providers are required to make index change information available to anyone who cares at the same time it becomes available to the managers of the fund. If an active index fund performs well and becomes popular, its additions will move up and its deletions will trade down like additions and deletions to the S&P 500 and Russell 2000—though probably by smaller amounts. Scalpers will soon learn to capture any value the active index quantitative model might provide—at the expense of investors in the active index fund. The only solution to this problem that is consistent with the principles of the index pioneers is a Silent Index.^[6]

A Silent Index is an index specifically created to serve as the template for a single fund. A Silent Index can be rules-based, or there can be an index committee. The rules would not be disclosed, and part of a committee's mandate would be to minimize turnover and other costs.^[7] The distinctive characteristic of a Silent Index is that any trading advantage associated with an index change belongs to the shareholders of the fund that uses the index as a template. The index change is published only after the fund has had an opportunity to implement the change. For the fund's shareholders, the economic benefit of this short period of secrecy beats the pants off any benefit from transparency.

Transparency is a great idea when we are talking about reporting fund performance, fees or potential conflicts of interest—or even if we are talking about revealing portfolio composition after trades have been completed. However, transparency in a fund's trading plans is an unmitigated evil. Index fund shareholders deserve better treatment than they are getting today.

What Will Become Of Index Publishers?

I do not believe we will need to pass the hat for index publishers when the index fund industry inevitably moves to Silent Indexes. Index publishers do very well from the license fees they collect from ETFs.^[8] Some of them will obtain similar licensing revenues from creating and publishing (on a deferred basis) fund-friendly Silent Indexes. Though the level of license fees may decline slightly in a new Silent Index fund era, index fund license revenues are based principally on use of the index licensor's trademarks—its name—not on index calculation methodology. The major index weighting schemes used by ETFs today were in the public domain before business method patents became popular. In any event, a trademark is "forever" and a patent is only valid for 20 years from the date the patent application is filed. The benchmark index publishers have valuable index trademarks and investor recognition that will help them license their marks and market their index calculation skills to the managers of Silent Index funds. Plus ça change, plus c'est la même chose.

Endnotes

^[1] Some managers of retail separately managed accounts (SMAs) do not embrace this principle, but let's ignore that for the purposes of the present discussion.

^[2] Jacques found a systematic and ongoing favorable effect on the stock price of an S&P 500 member, largely from the automatic demand for a company's shares that came with S&P 500 membership. This effect was recognizable from the end of 1979. From that time until recently, growth in use of the S&P 500 as a portfolio template helped S&P 500 members outperform the broader market. Some of Jacques' concerns about the long-term implications of this effect now appear remarkably prescient, as we will see in subsequent paragraphs.

^[3] David Blitzter and Srikant Dash, "The Index Effect Revisited," *Journal of Indexes*, January-February 2005, p. 24–28.

^[4] The Vanguard 500 Fund had net redemptions of about \$2.24 billion for 2005. The net inflow to the 500 SPDR in the fourth quarter of 2005 more than offset the Vanguard counterpart fund's decline, but first and fourth quarter flows in the SPDR are often affected by dealer tax timing arbitrage transactions. Vanguard has appropriately de-emphasized the S&P 500 fund and taxable investors should anticipate capital gains distributions as the fund shrinks (see Gastineau 2005(a) or 2005(b)).

^[5] This is well documented in Chen, Noronha and Singal (2006).

^[6] The title "Silence is Golden" was coined by the distinguished editor of this journal when I submitted Gastineau (2002).

^[7] Index rules can incorporate random elements to prevent outside observers from knowing how to trade ahead of or at the same time as the fund.

[8] See Gastineau (2005b), p. 120, for an estimate of how well.

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