

Is Indexing Ready For The Challenges Of The 21st Century?

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The dramatic growth in exchange-traded funds (ETFs) is the most recent evidence of public enthusiasm for index investing. When any phenomenon achieves the level of success that indexing has enjoyed— whether the phenomenon is an investment technique, a medical miracle or a media celebrity—it is usually a good idea to check that the success is fully deserved. In the case of indexing, there is certainly a great deal of merit in the idea, but also some weaknesses in the execution. Curing these weaknesses requires sound diagnosis and strong medicine. This column and a column that will appear in the next issue of this journal will try to address some questions about indexing that are the index fund equivalent of: "Why did Humpty Dumpty's shell break so easily?" or "Is the naked Emperor an exhibitionist or a fool?" Such questions may seem silly in a serious publication, but they are a call to think about index funds outside traditional frames of reference. The best way to understand the problems and the cure is to start with a clear statement of the fundamental principles of index investing.

Indexing Has A Strong And Solid Foundation

Peter Bernstein's history of the development and application of the great ideas of finance, *Capital Ideas* (1992), makes it clear that indexing was part of a broader plan. The unifying objective of the indexing pioneers was to replace the traditional trust department dog-walking (personal service) and stock-picking (active portfolio management) with portfolios that had more diversification and a more "scientific" construction. Increasing portfolio diversification and eliminating the costs of securities selection and active trading were as important as lowering operating costs in the minds of most early advocates and practitioners of indexing.

In the first edition of his perennial best seller, *A Random Walk Down Wall Street* (1973), Burton Malkiel called for "A New Investment Instrument." He said, "What we need is a no-load, minimum-management-fee mutual fund that simply buys the hundreds of stocks making up the broad stock-market averages and does no trading from security to security in an attempt to catch the winners."

In 1974, Paul Samuelson set down some arguments he had been making among the investment community in the *Journal of Portfolio Management*. He noted that, "The only honest conclusion is to agree that a loose version of the 'efficient market' or 'random walk' hypothesis accords with the facts of life."

Samuelson questioned why no money management organization offered an unmanaged diversified fund to the public. He believed that this could be done at relatively modest cost and that the fund would probably be a better repository for his savings than most actively managed funds.

Less than a year later, Charles D. Ellis, in one of the most widely cited papers in the literature of both finance and tennis, marshaled some simple facts illustrating that the institutionalization of the equity markets in the 1960s and early-1970s had made it probable that the average institutional investment manager would underperform the market as measured by a representative index. Ellis observed that the costs of trading actively managed institutional portfolios and paying administrative expenses and management fees combined with the increased institutional share of the market create an expense hurdle and leave too little stock in the hands of nonprofessional investors to let amateurs fill the ranks of underperformers. Institutional investing, like amateur tennis, has become a loser's game, where the winner is the player who makes the fewest mistakes or has the lowest costs. William Sharpe made the same case a few years later with equal elegance, but less athleticism.

John Bogle of Vanguard was as motivated by the desire to reduce investor costs in 1975 as he is today. Like other indexing pioneers, Bogle endorsed indexing as a way to lower costs (largely sales, trading and management costs) and improve performance. Bogle was pleased when his first index fund was large enough to own all of the 500 stocks in its benchmark index. His pleasure reflected the fund's growth and the diversification it had achieved with appropriate trading cost constraints that delayed the appearance of all the index members in the fund portfolio. He has never been a zealot in pursuit of precise index tracking.

While I do not claim my search was exhaustive, I have found nothing in the works of the indexing pioneers that suggests an index fund manager should incur added costs or take extraordinary pains to replicate the performance of an index exactly. The drive for precise index replication to minimize a fund's index tracking error — especially when close tracking means the fund will *underperform* is the fetish of a later generation of index fund managers. As the indexing pioneers saw it, index managers are not expected to generate a lot of alpha; but they are not expected to lose it either.

For all of the indexing pioneers, the index itself was a means to higher ends. None of these wise men anticipated the scale of indexing's success or, ironically, *the high costs which the index management and publication process imposes on many of today's index fund investors*. It is time to consider how the cost of indexing's success harms today's index fund investors. As an industry, we need to reassemble Humpty Dumpty and give him a stronger shell.

Costs And Performance In Today's Index Funds

The original idea behind indexing was sound and compelling—to improve the investment performance delivered to investors.

The index fund manager would invest in the index securities and not make any "active bets." One core idea was to obtain free risk/return improvement from the natural advantages of broad diversification. These advantages had been highlighted by Harry Markowitz in the 1950s. Other opportunities for expense reduction — and corresponding return improvement—would come from avoiding costly analysis of the individual companies in an index. If you had no investment opinion on individual stocks, you could minimize turnover and avoid transaction costs. Without analysts and with simpler administration and trading operations, you could reduce the cost of management and operation of the fund. Lower costs would lead, dollar-for-dollar, to better performance. Unfortunately, many popular indexes and index funds operating today do not deliver on the simple cost reduction and performance improvement objectives of the indexing pioneers.

Indexed assets are concentrated in funds tracking a small number of indexes. This concentration of assets almost invariably leads to dramatic price changes in stocks added to or dropped from popular capitalization range indexes like the S&P 500 and the Russell 2000. The sizeable transaction costs resulting from changes in these indexes are antithetical to the idea of reducing costs to improve performance. Most egregiously, index fund managers often fail to do everything possible to recapture the transaction costs associated with index changes by trading at a time other than the "official" moment of index change. Failing to pick the low-hanging fruit offered by the artificial liquidity demands associated with composition changes in popular indexes is unconscionable. Low-risk profit opportunities associated with index changes should be captured by index fund managers for the benefit of index fund investors. The arbitrageurs who capture most such gains today should not have all the fun and profit.

After the market closed on November 14, 2005, Standard & Poor's announced that Amazon.com would be added to the S&P 500. While the stock rose sharply, there was still a clear profit opportunity available to anyone buying Amazon at the opening on November 15 rather than at the close on November 18, when the index change became effective. This is not a fluke. It is the way stocks added to popular indexes typically behave. The Wall Street Journal for November 19-20 even commented on the Amazon.com trading pattern for the week: "Such announcements usually cause an 'S&P Effect' jump in a stock since it means many mutual fund managers must now own the stock." I will have more to say about the future effects of index composition changes in my next column.

Doing everything possible to capture virtually certain performance improvements is totally consistent with the fundamental principles of the index pioneers. Until Vanguard switched most of its index funds to less popular indexes, beating the index was standard practice at the company.^[1] John Bogle has often bragged about the quality of trade executions in Vanguard funds based on the S&P 500 and Russell 2000.^[2]

Even the most enthusiastic indexer will acknowledge that indexing has always been, and frankly should be, boring. Excitement from stock selection and portfolio turnover is often costly, but when an index change offers a free shot on goal with an open net, the index fund manager has an obligation to take that shot. Of course, even if a manager does exploit index composition changes, an even better strategy is to choose a less prominent, more fund-friendly index with less costly composition changes. There is no shortage of these better indexes.

The cost of changes in popular indexes is clear. Consider that funds buying Amazon.com at the price it entered the S&P 500 index paid over 12 percent more than the stock's price before its addition to the index was announced. Amazon.com is a fine company, but it did not become 12 percent more "valuable" in four days. If it had been added to a portfolio indexed to a less popular index, the fund's investors would not have had to pay so large a premium.

What About Active Indexing?

Active indexing means different things to different people.^[3] In the context of active indexes for ETFs, active equity indexing is usually defined by its advocates as the application of quantitative models (including screens, momentum indicators, value measures and other techniques) to make stock selections that are expected to help the active index outperform indexes based on traditional selection criteria.

There is certainly nothing wrong with applying quantitative tools to stock selection. If, for regulatory reasons, someone wants to call this indexing, only a pedant would take issue; if, for marketing reasons, someone wants to call this active indexing, only a cynic would object. Active indexers have to use an indexing framework to enter the market for ETFs because today's ETFs must fit the indexing framework. It is not pedantic, cynical or damning to observe that the portfolios created under the rubric of "active indexing" are not consistent with most of the concepts embraced by the indexing pioneers. Most "active index funds" offer limited diversification because they hold relatively few stocks. Administrative costs and management fees for active index funds are usually lower than similar expenses at a typical actively managed mutual fund, but the costs of these funds are high relative to most traditional index funds. Transactions in active index funds are relatively frequent and the cost of portfolio turnover is correspondingly high.

Active indexing is neither active management nor classical indexing. As long as investors understand what they are getting, there should be no objection to these offerings. However, if investors believe there is any significant relationship between the investment characteristics of these products and, say, the StreetTRACKS Dow Jones Wilshire 5000 ETF, there is a serious perception problem.^[4]

Fundamental Indexes

The Research Affiliates Fundamental Indexes (RAFI) have been a hot topic among indexers in recent months.^[5] The RAFI indexes deserve the considerable attention they have received. The underlying idea of basing index weights on something other than share price, market capitalization or float is not entirely new. Ken Safian has published indexes with weights based on GDP contribution and other metrics for 40 years.

Fundamental indexes are arguably more consistent with the original ideas behind indexing than active indexes. Turnover in the RAFI indexes need not be particularly high and the turnover need not be linked to all the causes of turnover that increase

costs in funds based on active indexes or traditional benchmark indexes. Fundamental indexes may reduce exposure to overvalued stocks simply by using a weighting methodology that does not rely on a company's share price or total market valuation.

The most frequent objection to the RAFI indexes seems to be that they are not cap- or float-weighted. The rationale for cap- or float-weighting has always been that value weighting leads to the creation of portfolios that are more tractable to manage and more consistent with the tenets of the Capital Asset Pricing Model (CAPM). Because they should represent the investible opportunity set, benchmark indexes used for performance measurement and evaluation should be float-weighted. The RAFI indexes are structured on different principles that seem to offer some portfolio performance advantages. The construction of the RAFI indexes provides a high level of diversification, though it is not the same kind of diversification that a cap- or float-weighted index (or at the other extreme, an equal-weighted index) would provide.

To the extent that an indexing technique departs significantly from float weighting, some performance evaluation tools may need to be recalibrated, but the initial data published on the RAFI indexes suggests that this is not likely to be a problem. There is certainly no reason why an index used as a template for a fund portfolio must be a benchmark index. No less a figure than Peter Bernstein (2003) has suggested that portfolio diversification from mother weighting schemes might trump capitalization weighting. In fact, the notion that some of today's benchmark indexes should be used at all as fund templates is inconsistent with the principles embraced by the pioneers of indexing and *by generations of active portfolio managers*.

It may surprise readers of this journal to be told that 21st century indexers have an important lesson to learn from active portfolio managers. Most indexing advocates continue to ignore the concern for secrecy that obsesses the best active managers, but the truth is that keeping a portfolio's trading plans secret improves its performance. The lesson index managers must learn from active managers and the inevitable problems caused by using benchmark indexes as portfolio templates will be two of the topics discussed in a column in the next issue of this journal. That column will describe the trading transparency of indexed portfolios as an unmitigated evil from the perspective of any investor in these portfolios. Arbitrageurs often profit from trading transparency, but trading transparency deprives index fund investors of some of the benefits they should enjoy if their fund managers make intelligent use of the original indexing principles.

Some simple changes will permit index fund managers to practice the original principles of indexing and improve the performance of their index funds. Index funds can avoid the unfortunate transparency problem that plagued the naked Emperor. Transparency cost the Emperor a little embarrassment; it costs index fund investors billions of dollars each year in lost performance.[\[6\]](#)

Endnotes

[\[1\]](#) I do not suggest that this is not still standard practice at Vanguard, but the S&P 500 is the only index they use now that gives them many opportunities to recapture the obvious costs of index changes.

[\[2\]](#) For interesting and useful comments on index fund performance differences and performance enhancement opportunities associated with trading aggressively during index composition changes, see Bogle (1999), p. 134, Blume and Edelen (2004), and Chen, Noronha and Singal (2004).

[\[3\]](#) I do not use the term as Lipper does in its innovative Active Index product (See Tjornehoj (2004)) or as broadly as it is used in Schoenfeld (2004).

[\[4\]](#) See Gastineau (2005), pp. 165-171, for a discussion of why this is the best choice among predominantly large cap broad market index ETFs.

[\[5\]](#) In addition to Hsu and Campollo (2006) in the January-February issue of the *Journal of Indexes*, a good discussion of these indexes and some other index issues appeared in Egan (2005).

[\[6\]](#) Chen, Noronha and Singal (2004) offers a conservative estimate of the performance losses on just two popular indexes.

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