Acceptance Remarks

John C. Bogle

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I'm delighted to share this remarkable Innovation Award with my fellow Scotsman, the quantitative investment pioneer John "Mac" McQuown. I'm especially honored because the CME Group Melamed-Arditti Innovation Award is based, not only on the invention of a financial innovation that has "created significant change to markets, commerce, or trade," but also on "the practical application of the idea . . . in improving the economic well-being of individuals, an industry, or a nation"—in the public interest. That's always been the goal of my long career.

Surely First Index Investment Trust (the original name of today's Vanguard 500 Index Fund) was designed to do exactly that. I'm still sort of amazed that it fell to me to create this pioneering index mutual fund way back in 1975. How did it happen? But first, how did it *not* happen?

First Index was *not* a product of complex algorithms, nor of Modern Portfolio Theory (MPT), nor of the Efficient Markets Hypothesis (EMH). For me, the uneven efficiency of the market makes the EMH an unreliable basis for indexing. Truth told, when I decided to start our index fund, I possessed neither the training nor the talent for applied statistics, and, embarrassingly, I had never even heard of the EMH.

Nor was the first index mutual fund a product of the quantitative work done at the University of Chicago and at Wells Fargo. Indeed, when I later read the Chicago version of the origin of the index fund, I realized that I had then never heard of a single one of those star-studded names that graced the Chicago article at the time I created First Index. Mac McQuown, Jim Vertin, Bill Fouse, Fisher Black, Harry Markowitz, Eugene Fama, Dean LeBaron, Jim Lorie, Merton Miller, Myron Scholes, and Bill Sharpe . . . surely a "who's who" is of the biggest names in the financial academy. This 1951 graduate of Princeton University with a mere A.B. degree was, in a word, *ignorant* of what was going on in the academy.

No, the genesis of First Index was casual and intuitive. Short version, according to Jan Twardowski, Princeton B.S.E.E. degree and recently-minted Wharton M.B.A. who was one of the 28 original crew members of our tiny, shiny new firm named Vanguard. I'll let Jan tell the story of what happened in mid-1975:

> "One day you surprised me by asking if I could run an index fund and after a couple days research I said yes . . . I wrote the index fund programs in APL on a time-sharing system, using simple cap-weighting algorithms and public databases. It was, frankly, easy, although I was quite nervous when you sold the idea to underwriters and the road show began. Actual money was going to be managed based on my little set of APL programs!"

There was, of course, much more to the story than that simple anecdote.[1] So let me take you through a brief time line of the confluence of events and circumstances that made my timing and my 1975 decision almost inevitable:

1. **March 1951. The Thesis**. I handed in my Princeton thesis focused on the then-tiny ($2 ½ billion) mutual fund industry, which was entitled "The Economic Role of the Investment Company." After a skimpy statistical analysis, largely anecdotal, I concluded that mutual funds "could make no claim to superiority over the market indexes." In mid-1975, as I prepared to recommend the formation of the first index fund to the Vanguard directors, I recalled those words.
2. **1960-January 1974. The Learning Experience**. Through my experience on the Wellington Fund Investment Committee, I learned first-hand how tough it is to find portfolio managers who could consistently distinguish themselves. Even more of a lesson: the 1966 merger that brought us Ivest Fund collapsed in 1974. Its managers, who had sown the "Go-Go" era wind, reaped the subsequent whirlwind. These aggressive young managers ruined Wellington Fund, ruined their own fund, and ruined two opportunistic copies of it. All three funds quickly failed the investors.
3. **January 23, 1974. The Firing.** Despite the failure of the managers, it was I who lost my job as CEO of Wellington Management Company. My new partners ganged up and fired me. It was not a happy moment in my career.
4. **January 24, 1974. The Closed Door Begins to Open.** The very next day, the Board of the Wellington Funds—largely independent of Wellington Management Company—met in New York City. (You can't make this stuff up!) I was still Chairman and CEO of the funds, and urged the directors to assert their legal independence, retain me as CEO, and perform their own

[1] No I'm not saying that two undergraduate degrees from Princeton and an M.B.A. from Wharton are equal to all those Ph.D.s from Stanford, Chicago, Harvard, and MIT . . . not saying it yet!

administrative, investment management, and share distribution services, basically terminating the funds' relationship with Wellington Management. That was a bridge too far for the Board, but they authorized me to provide a study of the options available to them.[2]

5. **September 24, 1974. Vanguard Is Founded**. The options that I presented to the Board ranged from the Funds' acquisition of Wellington Management (my first choice) to having the Funds assume responsibilities for their own administration but retain Wellington Management for their investment management and share distribution (my last choice). They voted for that last choice. But it was better than nothing, and 43 years ago Vanguard—the name that I had chosen—was founded as a truly *mutual* mutual fund organization, designed to serve its shareholders. Part of our strategy focused on minimizing the management fees paid to our advisers. Now, an index fund would give me the opportunity to start a fund with *no* management fees. This confluence of opportunity and motive may well be the most powerful single force undergirding innovation.
6. **October 10, 1974. "Challenge to Judgement."** That's when I read Paul Samuelson's article in the very first issue of the *Journal of Portfolio Management.* What a coincidence! I felt as if he had written it directly to me. Dr. Samuelson sought "brute evidence" that any mutual fund manager could consistently outpace the S&P 500 Index, but found none. He demanded, in effect, that someone, somewhere start an index fund based on the S&P 500. That bolt from the blue set my 1951 idea on the road to reality.
7. **September 27, 1975, Morning. Friendly Persuasion**. Given Paul Samuelson's unquestioned credibility, I marked his essay "Exhibit A" in my presentation to the board. The next presentation was my own statistical study showing the average annual return of equity mutual funds compared to the S&P 500 over the previous 30 years ending in mid-1975, which I calculated on a Monroe mechanical calculator. Result: S&P 500 annual edge, 1.6%.[3]
8. **September 27, 1975, Afternoon. The Index Fund Is Born**. To resolve that unpleasant political struggle, the newly formed Vanguard was barred by its Board from providing investment management services to our mutual funds. That door was closed to us. But the index fund allowed me to open a window: "This fund is not managed," I told the Board. Result: the unanimous approval of the Vanguard Board to form the world's first index mutual fund. (Again, "you can't make this stuff up.")

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[2] The Board was closely divided, and the directors were anything but aligned in their views. Were it not for the leadership of the late Charles D. Root, Jr., chairman of the independent director group, the events that followed would never have taken place.

[3] Factoid: I repeated the study for my paper published in the January/February 2016 issue of The Financial Analysts Journal for the 30 years ending 2015: S&P edge, 1.6%. The more things change, the more they remain the same.

9. **August 31, 1976. The IPO.** First Index was off to a bad—near-fatal—start. The initial public offering, led by Wall Street's four largest retail brokers, was planned for $250 million. It produced $11.3 million, an abject failure. One of the Wall Street managers of that IPO recently asked: "How is it possible that the worst underwriting in Wall Street history became the greatest innovation in modern finance?" Answer: "It's a long story."

Afterword

The poster announcing this CME award for innovation shows photos of me and Mac McQuown—my friend and enormously deserving co-recipient of this award—with the title of this conference: "Taking the Long View and Never Looking Back." But looking back, as I have done this afternoon, reminds us how fragile the path to an innovation can be, and yet somehow, against all odds, can result in an index fund, and ultimately an Index Revolution. Surely such a tortuous path to success—one that included a university thesis, a catastrophic merger, a firing, a journal article, a novel corporate structure, a fortuitous (perhaps even disingenuous) reading of an agreement, and yes, an unshakable determination—is an extreme example of what it took to turn a great idea into a reality that changed an industry and served investors.

That 1976 First Index mutual fund, with its pathetic $11 million in assets, struggled to gain traction. It didn't attract its first mutual fund competitor until 1984 (Wells Fargo). It was not until the early 1990s that it started to grow, and grow it did. Today, assets of the Vanguard 500 Index funds total $581 billion. With their sister fund, Vanguard Total Stock Market Index (with 83% of its assets in S&P 500 Index stocks), another $662 billion—in all, $1.24 trillion invested in these TIFs (traditional index funds) at Vanguard alone. Today, all told, the assets of all Vanguard index funds total $3.6 trillion, 74% of Vanguard's present asset base of $4.7 trillion.

During the past quarter-century, index funds have come into their own. More broadly, assets of all U.S. index mutual funds have risen from that pathetic $11 million in 1976 to $93 billion in 1996, a 55% compound annual growth rate—to $6.1 trillion in late-2017, still a respectable 22% annual growth rate. In the past decade alone, U.S. investors have added $2.1 trillion of net cash flow to their holdings of U.S. equity index funds and withdrawn more than $900 billion from their holdings of actively managed equity funds. Such a huge $3 trillion swing in investor preferences surely represents no less than an Index Revolution.

It now seems clear that the pioneering creation of that First Index mutual fund in 1975 provided the spark that ignited the index revolution. And it seems reasonable to conclude that my two best-selling books, both focused on index funds—*Bogle on Mutual Funds: New Perspectives for the Intelligent Investor* (1994) and *The Little Book of Common Sense Investing* (2007), together with a total of 500,000 sales, and read by an estimated 1.5 million readers, played a major role in fueling the extraordinary revolution that followed. It continues to this day. I'm proud to be counted as one of the principal pioneers of that revolution.

Thank you again for the high honor that you have bestowed upon me today, and the privilege of sharing it with fellow pioneer Mac McQuown.

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PERSONAL NOTE: My relationship with the remarkable Dr. Samuelson began with his *Journal of Portfolio Management* article, and was reinforced by his *Newsweek* column of August 16, 1976, "Index Fund Investing." We met several times thereafter and became a "mutual admiration society" of two. When, in 1993, I asked him to endorse my first book *Bogle on Mutual Funds*, he graciously turned me down . . . but he quickly offered to write the foreword, and I accepted his offer with surprise and delight. In his foreword, he credited me with having "changed a basic industry in an optimal direction."

On November 15, 2005, Dr. Samuelson would put the icing on the index cake in no uncertain terms, in an address to the Boston Security Analysts Society, he said:

> I rank this Bogle invention along with the invention of the wheel, the alphabet, Gutenberg printing, and wine and cheese: a mutual fund that never made of Bogle rich but elevated the long-term returns of the mutual-fund owners. Something new under the sun.

In 2007, with his consent. I dedicated my *Little Book of Common Sense Investing* to him, "my mentor, my inspiration, my shining light." Not a moment too soon, for Dr. Samuelson passed on December 14, 2009. The news broke my heart.

Yes, this relationship between that "greatest academic economist of the 20th century" (*New York Times*) and that Princeton graduate with a mere A.B. in Economics may seem strange to you. It seems a bit strange to me, too. But it was among the finest relationships of my long career.