Reflections on a Revolution

Remarks by John C. Bogle

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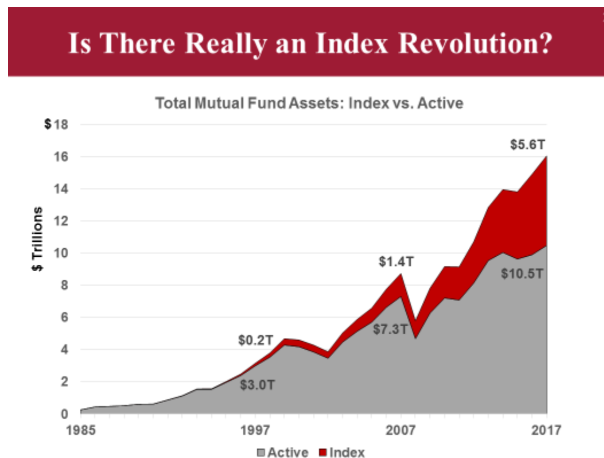
In recent years, disruptive innovation has permeated the realms of commerce as never before, and it is destroying many traditional business sectors. Think books. Think retail. Think print media. Think local transportation. Think recorded music.

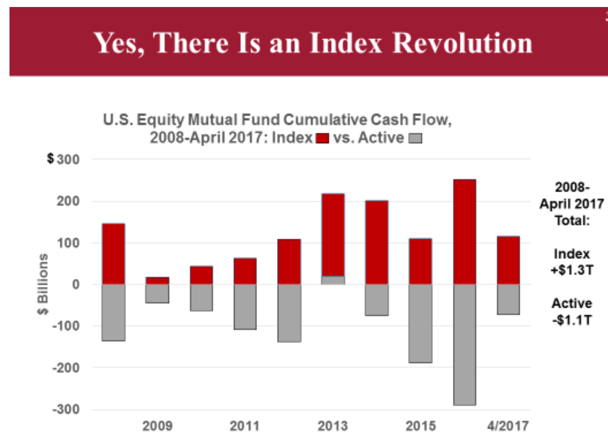
And think investing. The realm of investing has been no exception to the rise of disruptive innovation. The trading of stocks through brokers faces challenges both from electronic competition and displacement by exchange-traded index funds (ETFs). Robo-advisers challenge traditional registered investment advisers. And, traditional active money managers face the challenge of index funds.

So far the Index Revolution has claimed no victims among asset management firms, in part because a strong stock market has raised assets of actively managed equity funds from $7.3 trillion to $10.5 trillion over the past decade. **(Chart 1)** Advisory fees have risen from $73 billion to $86 billion, a mere $13 billion increase at revenues for the advisers to these active funds.



But in economics, everything happens at the margin. When we look at the data from a different perspective, the revolution leaps out at us. During the past decade, cash flows into U.S. equity index

funds have totaled a positive $1.3 trillion, while actively managed U.S. equity funds have suffered negative cash outflows of $1.1 trillion, a remarkable $2.4 *trillion* swing in investor preferences.



Index funds garnered positive flows during every year of the decade, while active funds had negative flows in nine of the ten years. (**Chart 2)** That trend seems to be accelerating. During the first four months of 2017, investors have poured $115 billion into U.S. equity index mutual funds—on pace for the biggest year ever. Active funds are on pace for their second worst year on record.

Yes, there's a revolution underway. If you believe Paul Samuelson, Warren Buffett, and David Swensen (my "murderer's row"), I've been a hero, the leader of this Index Revolution. They may even be right! Whatever the case, in 1975 I started the world's first index mutual fund. That strategy was importantly motivated by my 1974 creation of Vanguard, with its *mutual* (fund-shareholder-owned) structure, driven by its charter and its spirit to minimize the costs of investing.

Indexing, Costs, and Consumerism

It is this combination of strategy and structure that has paved the way to Vanguard's leadership: 80% of the assets of traditional index funds (TIFs)—largely based on buying and holding broad market, low-cost stock and bond indexes such as the S&P 500—and 30% of the assets of ETFs—largely based on active trading of both broad market indexes and narrow market segments, and often appealing to investors who wish to speculate. Combining both TIFs and ETFs, Vanguard holds a dominant 50% share of the U.S. index fund market.

Strategy and structure have also made Vanguard a hero to *Main Street*. The letters I get from shareholders almost every day say exactly that. But Vanguard is an anti-hero—dare I say "villain"? —to *Wall Street*. Our distinction—focusing on serving clients, rather than supplying "products" to intermediaries—is the foundation upon which Vanguard has been built.

For investors as a group, lower costs lead to higher capture of whatever returns the stock market gives us, or—let us not forget—takes away from us. There is no rational argument against this tautology. Therein lies the reason that the low-cost, buy-and-hold index revolution is here to stay. Indexing is not a fad; it is not a fashion; it is a fact of life, indeed of elemental arithmetic.

Placing the interests of Main Street investors ahead of the interests of Wall Street intermediaries is simply a reflection of the fundamental economic principle enunciated by Adam Smith in the *Wealth of Nations* in 1776. Paraphrasing: "The producer's sole duty is to serve the consumer." *Of course it is!* That principle is universal; investing other people's money is no exception.

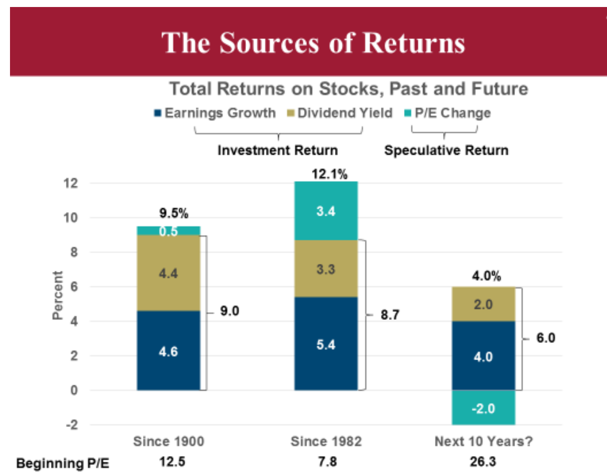
Past Returns, Future Returns

The failure of active fund managers in the strong bull market we have enjoyed (on balance!) since 1982 was well concealed by the fact that few fund investors seemed disappointed in their returns. Of course! The S&P 500 Index Fund earned an annual return of 12% per year, a 51-times increase; the annual return of the average large-cap blend fund was 10% per year, an increase of "only" 30 times. But investors in mutual funds looked at their wonderful *absolute* returns, and disregarded (or were not even aware of) their terrible *relative* returns. Indeed, they likely applauded their money managers.

There is little, if any, chance that 12% annual return on stocks during the era that we have witnessed (or at least heard about) is going to recur during the coming decade. Why? Because as John Maynard Keynes warned us long ago, "It is dangerous . . . to apply to the future inductive arguments based on past experience, unless one can distinguish the broad reasons why past experience was what it was." So let's look to the sources of stock returns to create rational expectations for the coming decade.

What were those sources of that 12% annual return of the S&P 500 on stocks since 1982? A 3.3% dividend yield and 5.4% annual earnings growth, for an *Investment* Return of 8.7%. A P/E ratio that

rose from 7.8 times to 26.5 times (Wow!), an annual *Speculative* Return of 3.4%. *Total* Return on stocks 12.1%. **(Chart 3)**



That was yesterday. Tomorrow is a different matter. Today, the dividend yield is 2.0%. Guessing at earnings growth, I use a lower figure, 4.0%. *Investment return*, 6.0%. Were the P/E declined to 19 times (just a guess, but a reasonable one), the annual *speculative return* would be -2%. Total stock market return 4%.[1]

Investment Costs Become Even More Important

It must be obvious that if future returns on stocks fall well below the extraordinary returns of the Great Bull Market, fund expenses will take an even larger chunk out of returns. In that 12% stock market era, 2% expenses consumed "only" one-sixth of the annual return, although the net cumulative return would have dropped from 5180% to 2710%. In a 4% annual stock market, 2% expenses would consume fully one-half of the annual return, reducing the cumulative return from 295% to 100%. As expenses take on such a dominant role in shaping returns, the index fund cost advantage will become even more obvious.

Individual investors who look to the past to tell them about the future are foolish at best. They are courting disappointment, and, given the likelihood of lower returns on stocks, will likely be ill-served if they haven't revised upwards the amounts they are saving each month. (If returns are higher than I suspect, they'll simply have built a larger nest-egg.)

[1] Feel free to disagree. Insert your own estimates for earnings growth and the P/E at the end of 2027.

Pension funds that fail to take into account lower future returns are courting not merely disappointment, but disaster. Pension plans—public and private alike—are now facing a $1.5 trillion deficit, assuming future returns of 7 ½% per year. In an environment of 4% gross returns on stocks, 3% gross returns on bonds, and even (generously!) 8% gross returns on alternative investments. 7 ½% looks impossible, especially when investment costs are taken into account. Even a 5% net return after costs for pension funds looks like a stretch. Here, the word "crisis" seems appropriate.

Challenges to Traditional Indexing

The index revolution, like all revolutions—is not without its flaws. The most recent flaw is the focus on the concept of "Smart Beta"—replacing market-cap-weighted portfolios by portfolios weighted by so-called "fundamental" factors: dividends, earnings, book values, assets, etc.

As a concept, Smart Beta is not a terrible idea . . . nor is it a world-changing one. But it suffers from the assumption that past data, heavily mined, will identify factors that will provide sustainable performance leadership. Mark me as from Missouri on that one. It ignores the principle of reversion to the mean (RTM) in stock returns, market returns, and mutual fund returns. That's a huge mistake.

Once again (remember the "Go-Go" fund craze of 1965-1968 and the "Nifty Fifty" craze of 1970-1973?), popular fads are driving "product" creation in the fund industry—great for fund sponsors, awful for fund investors. Let me remind you of this time-honored principle: *successful short-term marketing strategies are rarely—if ever—optimal long-term investment strategies.*

Recent experience with "Smart Beta" funds provides a classic example of the pitfalls faced by investors who create strategies through data mining. Renamed "Strategic Beta" by Morningstar, this category has boomed, even though the pioneering RAFI 1000 fund—formed a decade ago—has demonstrated only that its risk-adjusted return and its Sharpe Ratio both lag the S&P 500. Otherwise, it looks more like a closet index fund, with an R^2 of 0.97 relative to the S&P 500.

Yet the assets of these strategic beta funds have ballooned—from $100 billion in 2006 to $810 billion currently. They account for an incredible 26% of industry net cash flow so far this year, despite

the sharp lag in the returns of value funds **(Chart 4)**. In 2016, value stocks rose 16.9% while growth stocks rose only 6.2%. So far in 2017, growth stocks are up 12.2% and value stocks are up but 3.3%. Remember RTM?

Strategic Beta Funds 6.

	Net Cash Flow January-April ($ Billions)	
	2015	2016
Vanguard Value Index	$1.5	$3.3
Vanguard Small Cap Value Index	0.7	1.5
iShares Russell 1000 Value	-1.4	1.3
Vanguard Growth Index Investor	0.0	1.3
Vanguard Mid-Cap Value	0.8	1.1
iShares S&P 500 Growth	-0.4	1.1
First Trust Nasdaq Bank	0.0	1.0
Guggenheim S&P 500® Equal Weight	-0.5	0.9
iShares Edge MSCI USA Value Factor	0.0	0.7
TIAA-CREF Large-Cap Value Index	0.5	0.6
YTD 2016 Top 10	$1.1	$12.8
Other Strategic Beta Funds	4.4	14.6
Strategic Beta Total	$5.5	$27.5
All Equity Mutual Funds	-$26.6	$106.6
	Full Year Total Return	
Value Index	16.9%	3.3%
Growth Index	6.2	12.1

The Role of the Professional

In this new era where indexing is already such a powerful force, what is our role as investment professionals in financial analysis, stock selection, and helping our clients implement their investment programs? In the most recent issue of the *Financial Analysts Journal*, you'll find my essay entitled "Balancing Professional Values and Business Values." In that essay, I cite the ideas of Adam Smith and Benjamin Graham, as well as some of the characteristics and attitudes that I have done my best to help investors develop. I commend this paper to investment professionals in general, and to CFA charterholders in particular.

An Investment Lifetime

We have moved a long way from a past in which information was precious and where "customers men'" made a (nice) living by trading stocks for wealthy investors; where data on investment returns—absolute and relative—were scarce; where "professional management" was assumed to add value; where no index fund existed to establish the benchmark; where little thought was given to retirement planning. It's all so different today, and it's our duty as investment professionals to respond to this new environment.

In the coming era, what considerations should investment professionals emphasize? For me, these three concepts stand out:

1) Costs matter.

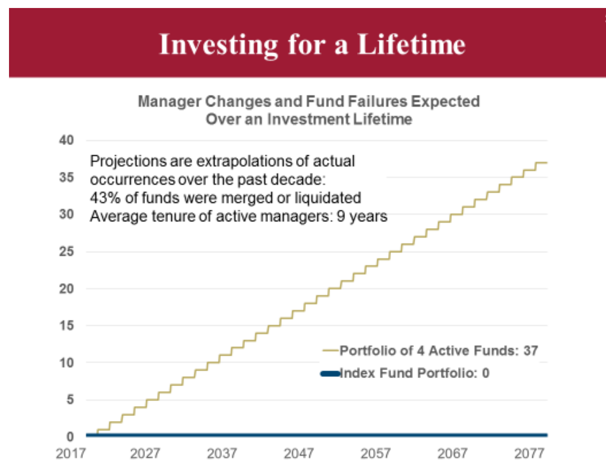
2) Trading transfers wealth from investors to Wall Street.

3) Focus on investment strategy for an investor's lifetime.

Let me close by focusing on investment strategy.

When we evaluate an investment program, we must ask ourselves, "How will this investment serve my client over the course of an investment lifetime?" The perspective of an investment lifetime brings to bear several facts that we might otherwise overlook. For example, consider the survivorship rate of actively managed mutual funds. Only 57% of equity mutual funds in existence ten years ago survived the decade. If we extrapolate that failure rate forward for a four-fund portfolio over an investment lifetime of, say, 60 years, we would expect the client to experience ten fund failures.

Then take into consideration the average tenure of active fund managers. The asset-weighted average tenure of active equity fund managers is just under nine years. Again, extrapolating that past experience, an investor with a four-fund portfolio would experience 27 manager changes over the next 60 years. After all those fund failures and manager changes, to say nothing of the onerous annual costs, what are the chances that such a client would even come close to matching the return of the S&P 500? The solution seems too obvious to explain.



We are in a new era of professional investing, one in which the rules of best practice are gradually changing. None of us in this profession—no matter what we believe the optimal investment strategy—can ignore the importance of costs, of indexing and of long-term focus.

Yes, this new focus will change our profession, but business values must still be balanced with fiduciary values. Strong ethics and professional competence must still be the bulwark of finance. We must develop a keener awareness of how our financial system works, a profound introspection about how we can make it better, a knowledge of the long history of finance, and a deep involvement in fostering in our profession the high character it requires if we are to serve investors effectively, efficiently, honestly, and prudently in the years ahead.

Balancing Business Values and Professional Values

I hope you will read my impassioned paper on business values and professional values in the most recent edition of the *Financial Analyst Journal,* and will consider my perspective. I've plied my trade of investing for almost 66 years, and I've seen so many of my principles find acceptance—not just on indexing, on the importance of low costs, and on short-term speculation vs. long-term investment, but on investment standards, ethics, and fiduciary duty. Of course I'm pleased to have been alive long enough to see the growing acceptance of these ideas. But we still have far to go—

"The trees I planted still are young."
"The songs I sing will still be sung."

I suppose it's ironic that I close my remarks to this distinguished audience of investment professionals with the word "cash." But those words are the words of Johnny Cash. Take heed.

Thank you.