Thanks to all of you for coming out to this important conference. And a special thank you to those of you who use our Vanguard funds with your clients (and often in your own investment portfolios). And thanks to all of you for working with investors—honest-to-God, down-to-earth human beings—and for helping them to meet their financial goals. The vast majority of investors need financial advisors, and you and your firms are likely the soundest approach to that mission.

It’s a special honor to join you at your conference once again. On my previous visit in 1999, you honored me with your Special Achievement Award—the first time that your award had been presented to a fund industry executive (as distinct from an academic, regulator, or author). Deserving or not, I am both proud and humbled to hold that distinction.

The fact is that I’ve always deeply believed that Vanguard is a natural partner for most independent registered investment advisers. My reasoning (perhaps like all of my reasoning) is simple, straightforward, and mathematical. If an adviser were charging clients, say, 1 percent annually for its services (I know that many of you offer different methods of compensation for your services), offering Vanguard’s at-cost, truly mutual funds at (then) 25 basis points of cost would result in an all-in-cost of 1.25 percent annually for your clients. Our typical rival seeking to work with you, however, was charging an average of 1.30 percent for its mutual funds alone, higher than the joint costs of 1.25 percent using Vanguard funds. Together, we could provide good value for clients.
In the years since I founded Vanguard (1974) and relinquished my role as CEO (1996), our firm’s emphasis on the RIA business has waxed and waned . . . and then waxed again. The rise of the ETF has honed our focus on firms like yours, and our marketing efforts with you have intensified. We now have regional offices across the country available to serve you, representatives to meet person-to-person with you, sharing the goal of focusing above all on the interests of the clients we jointly serve.

“Gentlemen, Cut Your Costs!”

When I addressed you in 1999, I was also focused importantly on mutual fund costs. (No surprise there!) The title of my remarks was, “Gentlemen … To Save Our Business from Ruin, We Must Reduce Expenses.” That title was taken from a speech given by my great-grandfather Philander Banister Armstrong in a speech to his colleagues in the fire insurance industry in St. Louis, Missouri, way back in 1886.

Grandpa Armstrong (as we called him) later turned his career focus to life insurance, and once again became a critic of his own industry. In his 1914 book, *A License to Steal: Life Insurance, The Swindle of Swindles*, he demanded that “life insurance, one of the necessities of modern civilization, should be furnished at cost . . . Old Line Life Insurance is a crime, and criminals belong in Sing Sing, where there is no license to steal.”

Armstrong, obviously, spoke in strong language (he puts me to shame!), never more so than in one of the concluding chapters of his book: “Why talk about correcting the present evils? The patient has a cancer. The virus is in the blood . . . He is not only sick unto death, but he is dangerous to the community. Call in the undertaker.”

My Career Values in Today’s Fund Industry

So I can properly say that Grandpa Armstrong’s apple’s apple’s apple didn’t fall very far from the tree. While virtually my entire career has focused on cutting costs for mutual fund investors and giving them a fair shake, compared to my great-grandfather, I am a moderate. (You
heard it here!) Consider these quotations from my Princeton senior thesis, which I completed in 1951.

“[Mutual funds] should be operated in the most efficient, honest, and economical way possible . . . Future growth can be maximized by reducing sales charges and management fees . . . Funds can make no claim to superiority over the market averages . . . The principal function of investment companies is the management of [their] investment portfolios. Everything else is incidental . . . *The principal role of the mutual fund should be to serve its shareholders.*”

More than 61 years later, those idealistic words continue to serve as my mantra, as they did when I established Vanguard, and did my best to establish our founding corporate structure, our investment strategies, and our human values.

**My Long Career**

Ever since I began my career in the fund industry, those values set forth in my thesis have continued to be at the forefront of my continuing mission to serve the fund shareholders who have entrusted their hard-earned dollars to our care. The validation of those values by the data themselves, by analysts, by Academia, and by the investing public has grown at a rapid pace, even accelerating over the past decade. No responsible commentator has failed to acknowledge that focusing on the wisdom of long-term investing and the debilitating impact of the heavy costs of money management have become the central tenets of intelligent investing, as well as providing measurably superior returns to investors.

But while the powerful tide rolling toward index investing and careful cost management is powerful, it is too slow for the likes of me. To accelerate these trends now demanded by the consumers of investment services, we need to demand the same of the producers of those services. For all of those who provide advice to investors (RIAs, yes, but institutional money managers as well), we need—and we need now—a legally enforceable federal standard of

A Federal Standard of Fiduciary Duty

1. Promote long-term focus.
2. Effective shareholder presence is in the national interest.
3. Exercise rights and responsibilities of corporate ownership.
4. Ability to nominate directors.
5. Eliminate conflicts of interest.

1. A requirement that all fiduciaries must act solely in the long-term interests of their beneficiaries.
2. An affirmation by government that an effective shareholder presence in all public companies is in the national interest.
3. A demand that all institutional money managers should be accountable for the compulsory exercise of their votes, in the sole interest of their shareholders.
4. A recognition of the right of shareholders to nominate directors and make proxy proposals, subject to appropriate limits.
5. A demand that any ownership structure of money managers that entails conflicts of interest be eliminated.

And of course, reasonable costs are central to meeting the fiduciary standard. For fiduciary duty, in a sense, comes down to a simple mathematical calculation: *How are the rewards of investing divided between the providers of financial services and their clients who put up their capital.*

Why? Because for investors as a group, gross returns in the financial markets, minus the costs of financial service providers, equals the net returns that are actually delivered to investors.
It may sound simple. But it is true. The mutual fund field is one in which investors, as a group, as a matter of mathematical certainty, not only do not get what they pay for, but get precisely what they do not pay for. Let me put the conclusion in its sharpest formulation: if investors pay nothing, they get everything—that is, 100 percent of the gains that our stock market is generous enough to bestow on us, and for that matter, 100 percent of the losses that our market can be mean enough to inflict on us.

Costs Matter!

In the short run, investment costs may seem inconsequential. But in the long run, costs can overwhelm stock market returns. As I’ve so often said, “the magic of long-term compounding returns virtually assures investment success for owners of stocks as a group... provided that it is not overwhelmed by the tyranny of compounding costs.”

Here, let’s look at the facts. Let’s assume a nominal compound annual return on stocks of 7 percent over an investment lifetime—let’s say 60-years—and compare it with an investment system that incurs costs of 2 percent, delivering a net return of 5 percent. The 2 percent cost is a reasonable—maybe even conservative—estimate of equity fund all-in costs, including an expense ratio of 1 to 1¼ percent; plus turnover costs of ½ to 1 percent; plus (often) sales loads, when annualized, of ½ percent to 1½ percent. Here, I omit the costs of about 1½ percent to for investor behavior (buying hot funds after they had shot the moon) and the costs of 1 to 1½ percent for tax-inefficiency for funds held in taxable portfolios. (Those extra 3 percentage points in annual costs are rarely taken into account in industry studies.)

But let’s be generous and stick to an annual cost of 2 percent. (Chart 2) Over an assumed 60-year investment lifetime, a $10,000 initial investment earning 7 percent would grow to $579,000. But at a net return, after costs, of 5 percent, that investment would grow to just a quarter as much, $177,000, a hit of almost 70 percent! The investor puts up 100 percent of the capital. The investor takes 100 percent of the risk. But the investor earns just 31 percent of the long-term return. That is not a fair deal!
As investors focus on the long term, and recognize the ever more powerful role of costs, there will be an awakening. “Knowledge is power.” Note now the role of costs in the allocation of market returns between investors and service providers. After year one, costs have consumed only 30 percent of the return; at year 10, it grows to 35 percent; after 25 years, to 46 percent; it crosses 50 percent in year 30, rises to 63 percent after 50 years and to 69 percent after 60 years. To borrow a phrase first coined by Justice Brandeis almost 100 years ago—there is simply no denying the Relentless Rules of Humble Arithmetic.

How Is The Fund Industry Responding To The Cost Challenge?

Yet, as I look around the competitive landscape, I see the apparent denial of this obvious tautology. While I have the greatest personal respect for BlackRock chief Lawrence Fink, his firm’s dominant position in exchange traded funds (ETFs) is threatened—caught on the horns of a nasty dilemma: On the one hand, he has a fiduciary duty to the shareholders of the BlackRock, Inc. to maximize assets under management, to maximize advisory fees, and to maximize profits. On the other hand, he also has a fiduciary duty to the clients of BlackRock’s mutual funds and ETFs to maximize their returns. But since BlackRock’s mutual fund business is dominated by index funds, he can enhance their performance in only one way: by reducing fees.
In recent years, BlackRock’s considerable success in the ETF marketplace has been increasingly threatened by competitors with far lower fee rates. A few weeks ago, Mr. Fink accepted the inevitable: slashing fees on some of BlackRocks ETFs, and offering other similar copy-cat funds at competitive costs while maintaining the present (higher) expense ratios of the originals. Forced by competition to make these decisions, Mr. Fink was not amused. According to The Wall Street Journal, he railed against competitors that “sell investment products at cost,” i.e., without profit to the manager. You can call that fee pressure, Mr. Fink said. But he also had another word for it: “stupidity.” As the creator of Vanguard’s mutual “at-cost” strategy way back in 1974, I accept the fact that, from his perspective, I’m stupid. But our tens of millions of Vanguard shareholders—now accounting for almost 20 percent of assets of all long-term mutual funds—don’t seem to feel the same way.

Day after day, whether BlackRock likes it or not, investors are becoming more aware that costs matter. I call it the CMH—the Cost Matters Hypothesis—which simply reflects the obvious concept that investor returns are ultimately determined by, I emphasize again, the allocation of financial market returns between financial service providers and the investors they are duty-bound to serve. When investment costs are minimized, investors, in aggregate, maximize their returns.

Only a few weeks ago, the impact of costs was also recognized by two high-cost providers of Target Date Funds. After a failed foray into the TDF sector, both Goldman Sachs and Oppenheimer threw in the towel. After it became apparent that investors had no interest in buying, holding, or trading their Target Date Funds, they shut them down. In their few years of operation, Goldman had attracted only $55 million in assets; Oppenheimer, only about $500 million.

The fact is that when competitive TDFs are available at as little as 0.18 percent, no sensible investor or trader would buy a TDF with an expense ratio of 1.22 percent per year (Goldman) or 1.52 percent (Oppenheimer). Of course, their fund performance was dragged down by these debilitating costs, with five-year annual returns averaging a loss of -2.0 percent, a shortfall of fully 3.3 percentage points per year compared to the low-cost provider’s TDF returns averaging
gains of +1.3 percent annually—a cumulative shortfall of 20 percentage points in just five-years for the investors in the high-cost TDFs.

As in BlackRock’s case, I recognize that Goldman is merely trying to earn the highest possible returns for the firm’s public stockholders and partners; and Oppenheimer to increase the returns to (ironically) the mutual life insurance company that bought the firm in order to generate additional profitability. But the message here is clear: If mutual fund owners are not earning their fair share of market returns, their management companies will have a struggle—ultimately a losing struggle—in the competition for investor favor.

**Income Matters!**

Let me turn to my final subject: the importance of investment income, and how the dividend income of a mutual fund is shaped by its cost structure. Today, interest rates on bonds are at an all-time low (1.6 percent on the benchmark 10-year U.S. Treasury note). Dividend yields on stocks—currently about 2.1 percent—are less than half of the long-term historical norm of 4 ½ percent. (Chart 3) This steep decline in bond yields as well as stock yields has profound implications for future returns on financial assets. Lesson number one, surely, is that whatever the long-term returns on bonds and stocks have been, they are irrelevant. What will drive stock and bond returns in the coming decade is today’s yield. (The message: Put away all those Monte Carlo simulations, or at least adjust them to today’s low-yielding financial environment.)
But no matter how flawed the nature of our financial system has become, invest we must. It is our responsibility to put our money to work and then stay out of the casino—that casino where the money changers and croupiers of Wall Street sit in the dealer’s chair and get rich . . . to the tune of $362,950 per person (including everyone from partners to those who labor in the mail room) in the last year alone, the average salary reported just a few weeks ago. (“Is this a great country, or what?”)

I know that many of you share my belief that a strategy focused largely on low-cost equity index funds is the optimal strategy—simply because it focuses on the long-term and guarantees your clients their fair share of whatever returns our stock market delivers. (The same tenets apply to owning the bond market through a low-cost bond index fund.) It is an investment strategy that is as simple as it is profound—I once described it as “the majesty of simplicity in an empire of parsimony.”

If you favor actively-managed funds, you already know that picking winning managers over the long term is not easy. Even if you never liquidate one of your client’s fund holdings, his or her fund portfolio will inevitably roll over again and again. In the years ahead, as in years
gone by, you’re certain to run through scores of funds and fund managers. History suggests that about 3,500 of today’s 7,000 active funds will go out of business during the coming decade. And even if a fund that you favor endures, the data tell us that in the next 25 years alone, it’s likely to be run by five different managers. Even if your client owns, say, four mutual funds and—defying the odds—all survive, his or her money will have been run by 20 different managers, with little regard to tax efficiency. In 50 years, there will likely be 40 managers! Given their high costs, the chances of a portfolio of funds outpacing the index fund over the very long term are insuperable, if not inconceivable. Only the index fund is a fund for a lifetime.

**Looking Ahead**

In a *New York Times* piece in August, I was quoted (correctly) as saying “this is the worst time for investing that I’ve ever seen.” Why? Because the prospects for future returns on stocks are highly likely to be well below long-term norms. Nonetheless, based on the methodology I developed for realistic return expectations a quarter-century ago—a model that has met the test of time—they should be nicely positive. My idea was to separate stock returns into two components: investment return, and speculative return. It turns out that ten-year investment returns are fairly predictable, speculative returns much less so. (Chart 4)
Investment returns (top line of figures) are generated by the initial (known) dividend yield on stocks (red bar), about 2 percent today, plus subsequent earnings growth (blue bar), averaging about 5 percent. A reasonable expectation for investment return in the coming decade is therefore around 7 percent, measured in today’s dollars. Such a return would be well below the historical norm of 9 percent (second column from the right)—creating a huge gap in appreciation of cumulative equity wealth during the coming decade. (Reminder: These are the market returns, before investment costs. Investors as a group do not—indeed cannot—earn these returns.)

The second element, speculative return (green bar), depends entirely on investor expectations and investor behavior. Unlike investment return, speculative return is enormously variable. We can easily measure it by the number of dollars that investors are willing to pay for each dollar of future earnings on stocks. If valuations a decade hence prove to be materially higher or lower than today’s price-earnings multiple of about 16 times, speculative return would be an important factor in the stock market’s performance. For example, a valuation of 20 times could add about 2 percentage points per year, to returns raising that 7 percent investment return to a 9 percent total return. A drop to 12 times, on the other hand, would cost about 3 percentage points, dropping the 7 percent return to just 4 percent.

But those are fairly big moves for valuations, and I don’t personally see significant reasons either for multiples to rise much (and thus produce positive speculative returns) or to fall much (and thus produce negative speculative returns). So I expect that our possible 7 percent investment return (far right bar) will be neither materially enhanced nor materially depleted by speculative return during the coming decade.

But even if stocks seem likely to provide adequate returns, nearly all prudent investors still need a balanced portfolio, including bonds, to reduce risk and contain volatility. The basic rule of asset allocation is age-based; less bonds when you are young, and more bonds as you age. Yet bonds today offer investors the lowest yields since I came into this field in 1951. Alas,
today’s yields are excellent predictors of the total returns you’ll earn on bonds over the coming decade. Worst case: the (so-called) risk-free rate—based on the 10-year Treasury bond—is now 1.6 percent, down from a high of 11.6 percent in the early 1980s. (We could call them “the good old days.”)

Two more shocking mathematical facts: a 1.6 percent return would increase capital by just 17 percent during the next 10 years; an 11.6 percent return for the same length of time would have multiplied capital three times over. So, yes, holding a balanced stock-and-bond allocation is essential today, but it will not likely provide the kinds of handsome returns we were lucky enough to experience during the 1980s and 1990s, albeit much better than we have seen thus far during the 21st century. (During the past 12 years, when a 60/40 stock/bond index portfolio earned 4.3 percent, it was bonds that did the heavy lifting. In the coming decade; it is stocks that will have to do that job.)

Of course, investors are not limited to U.S. Treasury 10-year bonds. Owning an investment-grade corporate bond index fund with a somewhat longer maturity should produce a yield of perhaps 3 percent. So it seems it is reasonable to own a mix of Treasurys and corporates, which might earn about 2 ½ percent. The Total Bond Market Index Fund—70 percent in Treasuries and other governments—now yields only 1.7 percent. But a Total Corporate Bond Index Fund would generate a yield about 3.2 percent. So, as much as I love the Total Bond Market Index Fund, it seems clear that most investors’ bond allocations need to be more heavily seeded with corporate bonds for income-starved investors.
So, let’s put these projections together. If it’s reasonable to expect stocks to return around 7 percent annually during the coming decade, and bonds to return as much as 3 percent (before costs), a traditional balanced index portfolio with 60 percent stocks and 40 percent bonds should provide a return of about 5 percent, not so different from the past twelve years (although, as I noted earlier, it was bonds, not stocks that led the way). This return is far below the 7 percent historical return on such a portfolio. And those are nominal dollars, not real dollars. If we are lucky enough to hold the inflation rate to 2 ½ percent, that 5 percent market portfolio return drops to a real return of 2 ½ percent. That figure, of course, is before the costs of investing—say, very conservatively, at least 1 ½ percent—and perhaps another 1 percent in taxes for taxable investors—a real, after-cost, after-tax return of, well, zero. (It’s frightening to do the math!) As we meet today, however, that is the investment reality.

**Seeking Income that Is “Enough”**

Considering income generation alone, such a portfolio could yield up to 2 ½ percent, before costs, in nominal dollars. If that’s not, in some sense, “enough” for your income-starved clients, the options to earn income that will cover living costs are simple, but not easy: (1) Reduce living expenses—no matter how painful; (2) Leverage your portfolio by borrowing at today’s low interest rates and investing the proceeds—a very risky strategy; (3) Spend moderate
amounts of your capital—but an investor can’t do that forever; (4) Reach for higher yields by using junk bonds—with their far higher credit risk—or shift some of the bond portion into high dividend stocks—with much more volatility risk. But in general, make only moderate changes in your asset allocations; avoid box-car changes in favor of marginal changes. For in the real world, as you see above, for every pro, there’s a con. As it is said, *there’s no such thing as a free lunch.* . . .

Or is there? In fact, there is one remarkably easy way to increase your clients’ income returns while leaving risk absolutely unchanged. And this brings me full circle in my discussion. The simple mathematical fact is that, because of high mutual fund expenses, the passively-managed all-stock-market index fund typically holds the same composite portfolio as the average actively-managed fund, and generates about the same gross dividend yield, say, 2.1 percent for stocks and 2.9 percent for taxable bonds. *(Chart 6)* But active stock funds (the managed funds are in red) subtract expenses averaging about 1.2 percent, leaving less than 90 basis points for the investor. Active taxable bond funds generate gross income of about 3 percent, but subtract about 0.9 percent in expenses on average, consuming more than 30 percent of the yield and leaving just 2.0 percent to distribute.

### The Impact of Investment Costs on Fund Yields, October 2012

<table>
<thead>
<tr>
<th>Fund Category</th>
<th>Gross Yield</th>
<th>Expense Ratio</th>
<th>Net SEC Yield</th>
<th>Percent of Yield Consumed by SEC</th>
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</thead>
<tbody>
<tr>
<td>LARGE-CAP STOCK FUNDS</td>
<td>2.09</td>
<td>1.22</td>
<td>0.87</td>
<td>58%</td>
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<tr>
<td>Vanguard Total Stock Market Index</td>
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<td>0.06</td>
<td>2.04</td>
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<tr>
<td>BALANCED FUNDS</td>
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<td>1.29</td>
<td>0.59</td>
<td>68%</td>
</tr>
<tr>
<td>Vanguard Balanced Index</td>
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<td>0.10</td>
<td>1.83</td>
<td>5%</td>
</tr>
<tr>
<td>INTERMEDIATE-TERM BOND FUNDS</td>
<td>1.74</td>
<td>0.65</td>
<td>1.09</td>
<td>37%</td>
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<tr>
<td>Vanguard Total Bond Market Index</td>
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<td>1.66</td>
<td>6%</td>
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<tr>
<td>INTERMEDIATE-TERM MUNICIPAL BOND</td>
<td>1.73</td>
<td>0.78</td>
<td>0.95</td>
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<tr>
<td>Vanguard Intermediate-Term Tax Exempt</td>
<td>1.74</td>
<td>0.12</td>
<td>1.62</td>
<td>7%</td>
</tr>
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Notes: Sales loads not included.
Source: Strategic Insight SimFund, Vanguard October 2012
On the other hand, for an equity index fund with a cost of a mere 0.1 percent, the net yield on the stock index fund comes to slightly above 2.0 percent, the Intermediate-Term Bond Index Fund to 2.1 percent. The yield enhancements are 120(!) percent for stock funds and about equal for the bond funds (with higher quality and shorter maturity)—are there for the taking, without any increase whatsoever in risk exposure. (The same arithmetic applies to annuities, with annuities invested in index funds available at costs as low as 0.25 percent, compared to more than 2 percent per year for their highest cost cousins.)

The Dominance of the Index Fund

In recent years, with sharply lower income yields now available, and the demonstrated importance of low costs as the major factor in producing optimal total returns in stock funds and bond funds alike, the move toward index funds has come into its own. During the past six years, fund investors have moved almost $300 billion out of relatively high-cost, actively-managed equity funds and poured more than $650 billion into low-cost, passively managed equity index funds, a swing of almost $1 trillion. (Chart 7) In today’s low yield environment, with clients starving for income, indexing is even more attractive than ever before, and intelligent investors are voting for it with hundreds of billions of dollars.

![Equity Fund Cash Flow Since 2007](chart)
As my newest book, *The Clash of the Cultures*, makes clear, I am dissatisfied, disappointed, and angry about how our financial system is working today. But I am pleased with how those remarkably simple ideas that I expressed at Princeton all those years ago have proven themselves. Index equity fund assets are rapidly approaching one-half of the assets of active equity mutual funds, and growing apace. In these days of low market yields and high mutual fund expenses, I expect that growth to accelerate.

A journalist recently reported that I take “almost childlike delight” in seeing my idealistic dreams come true, as the low-cost *mutual* model of mutual fund structure and the dominance of index funds have come into their own, reflecting two vital ingredients of fiduciary duty that our clients expect of their investment advisers and of their mutual fund providers. (He was accurate, I think, except for the *almost!* But I’ve long since realized that what passes for success in this funny world of ours is really a journey, not a destination. My long journey continues, and I thank you for being in the, well, vanguard of the coming new order of fiduciary duty in the investment advisor field and the field of mutual fund management.