Three Odysseys—
The Long Adventurous Journeys of the Stock Market, the Mutual Fund Industry, and Vanguard

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The Wisemen

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In January, 2001, when I accepted your kind offer to join you this evening, little did any of us imagine that the first year of a new millennium that began with such great promise would end with such staggering challenges to our American way of life. Our economy has been—and will continue to be—greatly affected by the attack on America, and I'd like to talk to you tonight about what's next in three different financial odysseys: The long adventurous journeys of the stock market, the mutual fund industry, and Vanguard.

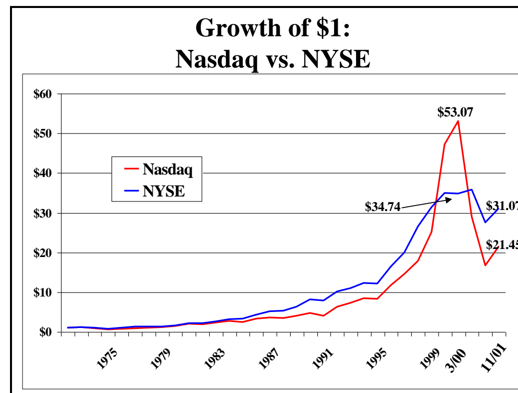
What happened on September 11, just four miles from here, struck like a stiletto into the American psyche and our economy. Its echoes quickly reverberated across our financial markets, reminding us once again of one of the most elemental realities of investing: Stock market returns are created by just two factors—*economics and emotions*.

When the stock market reopened after the attack, emotions held sway. How could it have been otherwise? The collapse of the proud towers; human beings plunging 100 stories to their death, often hand in hand; the poignancy of a husband's final words to his wife on a cell phone; the threat of terrorism; American troops hunting an elusive foe in deepest Asia; nervousness about our financial system; fear of a change in our way of life. It was a dark moment in U.S. history; indeed, it's difficult to imagine a more emotion-packed time in American history than the days and weeks following the attack on our nation that took place on September 11, 2001.

The Birth—and Burst—of a Bubble

When the attack came, a bear market was already underway. At the peak of the technology bubble in March 2000, the total value of all U.S. stocks was $16.2 trillion. As the market prepared to open on September 11, that value had tumbled to $12.1 trillion, a decline of

30% in the total stock market index. Most of that drop was represented by the burst in the "new economy" bubble, with the technology-driven NASDAQ Index off 66% and the largely "old economy" New York Stock Exchange Index off but 16% from the high.



Yet while a $4 trillion loss in market capitalization is hardly insubstantial, veteran investors recognized that much—perhaps all—of that $16 trillion total never had much substance in the first place. We usually know *what* is coming, but we never know *when*. (That's why we're not market timers!) After all, the market had also been valued at $12 trillion as recently as early 1999, and most investors were ecstatic with the returns they had earned. The dip simply represented a return to reality, a change in the market's emotional state from greed to what seemed like caution.

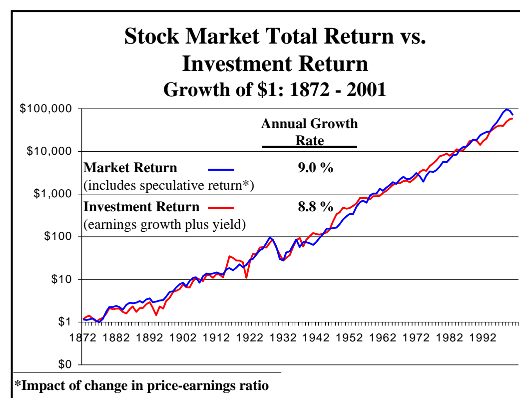
The powerful emotions unleashed in the aftermath of the attack quickly soured the mood of investors. Fear was in the saddle, driving the market down another 14% after the market reopened, erasing another $1.4 trillion of value. Only a fool would challenge the notion that some degree of fear was—and still is—warranted. Our world has changed. But wise investors realize that, time and again through stock market history, the emotions reflected in the market pendulum have swung from optimism to pessimism. And then back again. But in the long-run, the perspective is clear. *Emotions don't matter. Economics do*.

We measure the *economics* of equity ownership by what I call *investment* return, the dividend yield on stocks plus the annual rate of earnings growth that stocks achieve. We measure the *emotions* of equity ownership by the change in the price that investors are willing to pay for each dollar of earnings (the P/E ratio)—what I call *speculative* return. Added together, these two returns produce the total *market* return. In 1983, for example, the starting dividend yield on the Standard & Poor's 500 Stock Index was 5% and its earnings growth was 11%, an investment

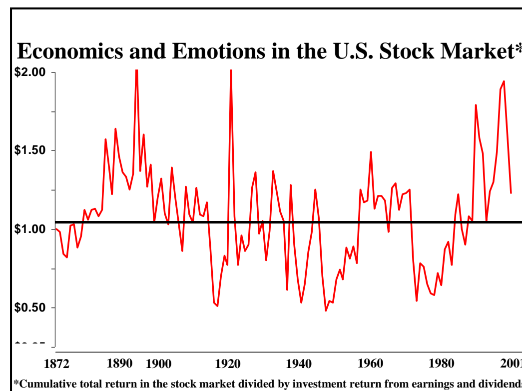
return of 16%. The price-earnings ratio rose from 11.1 times, to 11.8 times, for a 6% speculative return. Result: Market return for the year, 22%.

Long Term Investing is about Economics

Now let's examine these two sources of return over the long run. Over the past 130 years, the *market* return of U.S. stocks has averaged 9.0% per year. The annual *investment* return from earnings and dividends has averaged 8.8%; the *speculative* return just 0.2%. Were this a football score, it would read: Economics 88, Emotions 2. *Long-term investing is all about economics*.



That virtual one-for-one parity between economic return and market return, however, is something we rarely see. Pendulum-like, the cumulative investment return swings way above the market return, and then way below. When emotions turn negative, and P/E ratios fall, the speculative return sharply diminishes the investment return. From 1961 through 1981, for example, a fall in the P/E from 23 times to 8 times—from optimism at the beginning of the period to pessimism at the end—resulted in a negative speculative return of *minus* 4.6% annually, slashing the 12.1% annual investment return by almost 40% to a market return of just 7.5%



But fear can last only so long. In mid-1982, the tables turned and optimism began to return. By the market high in March 2000, the P/E ratio had soared to 35 times, an annual injection of a full 5.4% of speculative return to the 10.3% investment return of the 1981-2000 period. Result: Despite a 20% decline in *investment* return, the total *market* return came to 15.7%, the highest for any comparable period in history. Sometimes, emotions overwhelm economics.

Does the reversion of the ratio of market return to investment return to near parity mean that stocks are now fairly valued? *We don't know.* We don't know because no one can be sure how far the market pendulum, having swung so far toward greed, may swing toward fear. What we *do* know is that since emotions dominate the short-term decisions of most investors, the pendulum rarely comes to rest at fair value for any prolonged period of time. Further, we don't know because, given the strains our economy is facing after the attack on America, there is considerably more uncertainty than usual about the economic returns that lie ahead.

Financial Market Returns in the Coming Decade

But let's look ahead anyway, because we may know more than we think. First, we know that the dividend yield component of future investment return will be tiny. While over the long run, the average yield of 4% on stocks has accounted for more than 40% of the market's investment return, today's stock yield is but 1½%—not much gas in the market's tank. The second component, earnings growth, has little short-term visibility as we work our way through a serious recession in an uncertain economic environment. Corporate profits are tumbling in 2001, and forecasting 2002 is an exercise in guesswork. But the earnings of American corporations are *likely* to be *somewhat higher* in 2005 than in 2000, and almost *certain* to be *much higher* in 2010. Agree or disagree with my conclusion, that's what the serious investor should be thinking about.

We also know that over the long term, the after-tax earnings of U.S. corporations have grown apace with our population and our productivity, and at a remarkably similar rate. Since the end of World War II, for example, our gross domestic product has grown at a rate of about 7%; so have corporate profits. Looking ahead to the coming decade, a continued—if optimistic—earnings growth rate of 7% plus a dividend yield of 1½% would bring the investment return on stocks to 8½%. *It is these economics that will drive the market*.

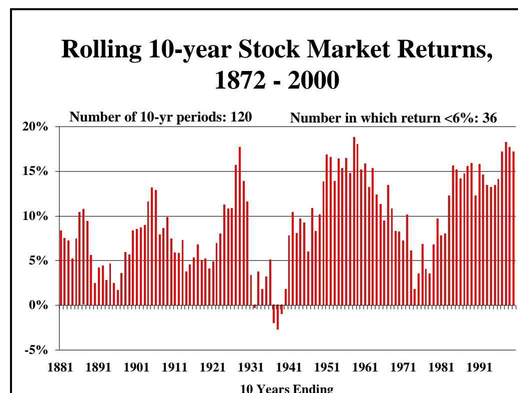
Emotions seem more likely to reduce that investment return than to increase it. With a price-earnings ratio of about 22 times based on *normalized* earnings (far higher relative to *actual* earnings during the present recession), some retreat toward the long-term norm of 16 times seems more than likely, producing a negative speculative return of 1% to 3%. The result, if all goes well: *A stock market return in the range of 6% to 9% per year over the next decade.*

Market Returns in the Coming Decade?
(2001 - 2011)

	Market P/E Ratio in 2011				
	16x	**20x**	**22x**	**26x**	**30x**
Dividend Yield	1.5%	1.5%	1.5%	1.5%	1.5%
Earnings Growth	7.0	7.0	7.0	7.0	7.0
Investment Return	8.5%	8.5%	8.5%	8.5%	8.5%
Speculative Return*	-3.0	-1.0	—	+1.7	+3.1
Market Return	5.5%	7.5%	8.5%	10.2%	11.6%

*Annualized impact of change in P/E ratio

That may not sound like much. But don't forget that the long-term norm is 9%, and that in one decade out of every three stocks have produced *less* than 6% annually. And before you write-off stocks, don't forget that prospective bond returns are also low. The U.S. Treasury 10-year bond, for example, yields just 4¼% today, and money market fund yields will soon be below 2%. Wise investors will scale down their expectations to reflect these new realities. My advice to long-term investors: Stick to prudent investment principles; hold a stock/bond allocation consistent with your own risk tolerance; and make sure your portfolio is broadly diversified. Let economics rule your decisions, keep your emotions out of play. And then follow the wisest of all investment rules: *Stay the course.*



The Mutual Fund Industry—Meeting Investor Needs?

My outlook for financial market returns suggests that the long and exciting voyage of the stock market is unlikely to get less adventurous. We not only live in a risky era, but an era in which lower returns in the financial markets, across the board, seem the order of the day. *But please don't make the mistake of assuming that those are the returns investors will actually receive.* The fact is that few investors indeed ever have received—or ever *will* receive—the returns that the markets provide.

This brings me to yet something else we *know*: Since all investors as a group garner the gross returns of the market, beating the financial markets is a *zero sum game.* And since investing costs money—lots of it!—all investors as a group lose to the markets by the *exact* amount of their costs, and beating the markets quickly becomes a *loser's game*. Because of the staggering costs imposed by financial intermediaries, the lag in investor returns is substantial.

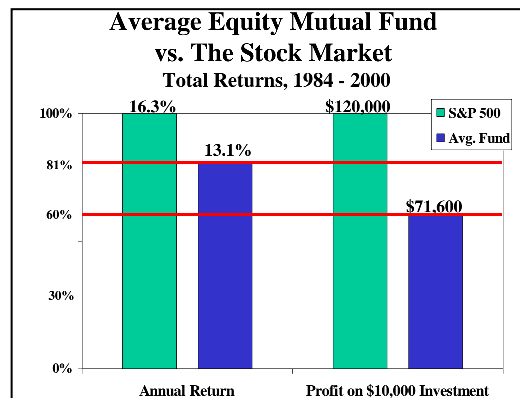
Consider the mutual fund industry. Fund advisory fees and operating expenses this year will come to about $70 billion; sales charges and out-of-pocket costs, another $5 billion; the hidden—but real—costs of portfolio turnover, another $35 billion. Total $110 *billion*. What is more, despite the industry's staggering growth, these costs have soared even faster, for only a tiny portion of the huge economies of scale involved in fund operations have been shared with investors.

Since I came into this industry 50 years ago, fund assets have grown by more than 200,000%(!), from $3 billion to $6.5 *trillion*. Yet the expense ratio of the average equity fund, then about ¾ of 1% per year, has more than doubled, to 1.6%. Fund portfolio turnover, 18% annually in those ancient days, has risen to more than 100%, far larger than the decline in unit costs that our highly-efficient electronic stock markets have provided, and leading to an additional, say, 0.7% of annual costs. Together, these two costs alone come to 2.3%. Add in fund sales charges and other fees, and a 3% all-in cost hardly seems hyperbolic. All else held equal, then, equity fund returns should lag the stock market return by about 3% per year.

From Theory to Practice

Practice confirms theory. Since 1984, stocks, as measured by the S&P 500 Index, have provided a 16.3% return. The average equity mutual fund turned in a return of 13.1%—3.2

percentage points less, a shortfall that closely parallels our three percentage point estimate for fund costs.[1] In other words, the funds earned about 80% of the market's annual return. But when we compound the annual returns based on an investment of $10,000 at the start of the period, the investor captured only 60% of the market's cumulative wealth. The market investment would have grown by $120,000, compared to just $71,600 for the average fund. *The magic of compounding investment returns; the tyranny of compounding investment costs.*

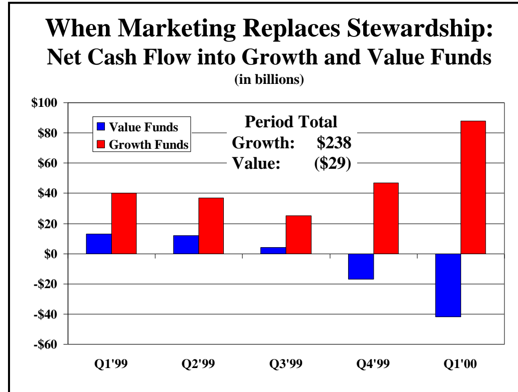


What is more, it's no secret that the fund industry, once an industry that prized investment stewardship as its highest value, has now embraced product marketing as its beacon. In their battle to build assets, and thus advisory fees, mutual fund sponsors are quick to capitalize on the latest fads and fashions of the stock market. During the great NASDAQ bubble, for example, fund sponsors created record numbers of new growth and aggressive growth funds with a heavy tech-stock orientation (340 funds) and pure tech funds (116), with pace-setting budgets advertising their pace-setting short-term returns. These funds rose by an average of 85% during the final upsurge in the market from 1999 through March 2000, and those that were advertised had even higher returns.

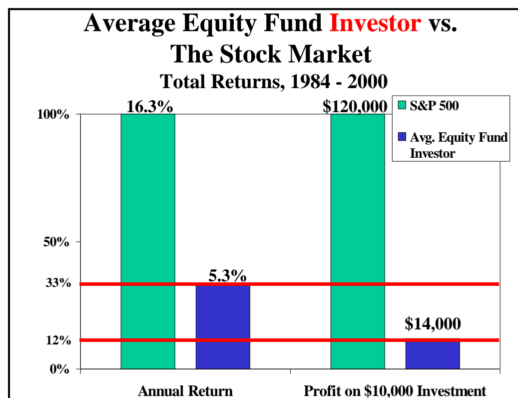
The result: Great for the marketers, horrendous for the investors. These aggressive funds were the recipients of the largest glut of cash inflow in the industry's history—$238 billion. On the other hand, investors in value funds, which rose 11% during the same period, actually had a net cash outflow of $29 billion. Then came the burst in the bubble. The growth group fell 51%, while the value group declined just 11%. It is no secret that when a fund rises 85% and then drops 51%, its net return is *not* 34%. Its net return is *minus* 10%. ($1.00 rises to $1.85 and then falls to $0.90). And the once-shunned value funds are down 1% on balance—after all was said

[1] Source: Lipper. Fund data adjusted for sales charges.

and done, an advantage of nine percentage points. The message: *Sweet selling is sour stewardship*.



The counterproductive result of this business of over-marketing and promotional hype is that the returns actually earned by mutual fund investors are even *worse* than the inferior returns shown in my earlier study. How much worse? Don't take my word for it. Look at the figures reported by the fund industry's largest firm:[2] With the S&P 500 providing an annual return of +16.3% since 1984 and the average *fund* earning 13.1%, the return earned by the average mutual fund *investor* was just +5.3%(!). Nearly 40% of the fund return vanishes into thin air when we take into account where investors actually placed their money. It turns out that fund investors earned not 80% of the stock market's annual return, but 33%. And not 60% of the market's cumulative wealth, but 12%, because the $120,000 profit earned by simply owing the market compared with but $14,000 for the average fund investor. Is the mutual fund industry meeting the needs of individual investors? You tell me.



[2] Source: Fidelity.

If mutual fund shareholders are the losers, who are the winners? Why, the financial intermediaries! Specifically, the owners of fund management companies, whose annual pre-tax profits came to as much as $25 *billion* in 2000 alone. FORBES magazine's recent list of the 400 Richest Americans gives us some idea of how well fund managers do. The list includes 15 billionaires (or, in fairness, near billionaires) whose wealth is derived from the profits they have made by managing other people's money—an average nest-egg of $2 billion. It's a living! One can imagine that more than one of these rich Americans owns a yacht of the type that inspired the classic question: "Where are the *customers'* yachts?" (Today, it may be a G-5 jet.)

If fund costs ate up a large chunk of the profits of investors in an era of 16% stock returns, just imagine what will happen when returns are lower. If I'm right that future returns may be in the 6% to 9% range, a 3% cost would consume, not 20% of the annual return, but 33% to 50%; not 40% of the cumulative profit, but 75%. Fund costs will also take a substantial toll on that 4¼% Treasury bond return and that 2% money market yield. So wise investors had best be aware, not only that costs have mattered in the past, but that costs will matter more than ever in the years ahead. Yes, costs always matter.

Enter Vanguard

Surely you can't look at the array of numbers I've presented showing the shortfall of fund returns to the market without wondering why on earth the investing public doesn't turn its back on mutual funds and simply buy the market. I wondered about that too. Indeed, a half-century ago, I wrote these words in my Princeton University senior thesis on *The Economic Role of the Investment Company:* Mutual funds "can make no claim to superiority over the market averages," and mutual funds "should be managed in the most honest, efficient, and economical way possible." Given those convictions, it was clear that efficiently buying the market averages at an economical cost would be a smart investment strategy. But how to do it? The idea festered in my mind over the ensuing 23 years. Suddenly the opportunity arose to take action.

Here we move from the odyssey of the stock market and the odyssey of the mutual fund industry to the odyssey of Vanguard, an adventurous journey that has been fraught with challenges but punctuated by good fortune. After my graduation from Princeton, I joined fund pioneer Wellington Management Company, and was named to lead the firm in 1965. In 1966, I entered into an unwise merger with some star fund managers. By 1974 they had tired of my autocratic ways, even as I had despaired of their fall from grace in the sharp stock market

decline—which was to reach 50%—following the burst of the earlier Go-Go bubble in the market. They banded together to fire me, accomplishing the deed on January 24, 1974.

I was devastated. But I promptly set out to recoup my job. In brief, I was able to persuade the directors of the *mutual funds* that were managed by Wellington to set off on a new course: Establishing a staff dedicated solely to the funds shareholders' best interest; operating, not for a percentage fee but on an at-cost basis; and giving the funds complete independence from the managers who had fired me.

I named the new company after Lord Nelson's flagship HMS Vanguard—another lucky break—and described our unprecedented foray into running truly *mutual* mutual funds as *The Vanguard Experiment*, a test of whether our novel corporate structure and unprecedented form of fund governance that focused on profits to fund *shareholders* rather than profits to fund *managers* could succeed. In the words of author-economist Peter L. Bernstein: *Jack Bogle's goal was to build a business whose primary objective was to make money for his customers by minimizing the elements of the inherent conflict of interest (between seller and buyer), but at the same time be so successful that it would be able to grow and sustain itself. It has been no easy task.*

Strategy Follows Structure

We were incorporated in September 1974, almost at the very bottom of the bear market. Our asset base was $1.4 billion, spread among eight mutual funds, all but one of whose portfolio managers had performed poorly in the market decline. Money management and distribution were still the responsibility of my former partners at Wellington Management, and our new charter limited us to administration, and nothing more. Our mutual structure would be key in our mission to become the lowest-cost provider of financial services in the world; our strategy would be to create simple mutual funds in which low-cost was not only essential to investment success, but would represent, dollar for dollar, the difference between success and failure. ***Strategy follows structure.***

We had been in operation for but three months when the first seeds of that simple vision were sown. In July of 1975, recalling the message of my thesis and the failure of our active managers in the bear market, I collected all the performance data I could find in old mutual fund manuals, calculated the average annual returns of the 50-odd funds that had been in business during the previous 30 years, and compared them to the return on the Standard & Poor's 500

Index. Result: Average annual fund return, 9.8%; S&P 500 return, +11.3%. To magnify that 1½ percentage point difference, I assumed a large initial investment, and compounded it. Thirty years later, the original $1,000,000 investment had grown to $16,500,000 in the average fund, but to $25,000,000 in the S&P 500 Index. Difference: *$8.5 million.* Our mutual low-cost structure gave us the ability to match the index at nominal cost, and quickly led to our formation of the world's first index mutual fund.

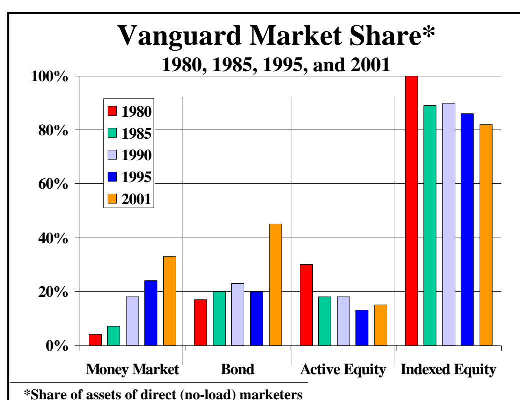
Our structure was also the linchpin of the strategy to abandon our funds' half-century commitment to a seller-driven broker distribution channel and move to a buyer-driven no-sales-load channel in February 1977. We made that unprecedented decision just five months after the index fund initial public offering was completed. (It had raised a less-than-mind-boggling $11 million.) Ditto for our second major innovation in fund management just four months later, this time in the bond market. Casting tradition to the winds, we formed, not a single so-called *managed* bond fund, but a troika: Long-term, intermediate-term, and short-term. This simple innovation, while less recognized than our creation of the first index fund, changed the way investors regarded bond funds. It quickly became the industry *modus operandi*. So, in less than two years from our start as a tiny administrative company, Vanguard had been transformed into the full-line fund complex it is today.

Character Counts

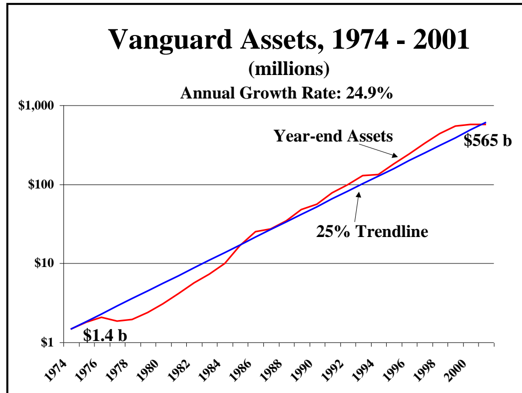
A lot has happened since the summer of 1977, but nothing has changed the stamp of character we placed on the firm during those formative years. It is the brute force of that character that drives us to this day: Simple funds designed to assure investors of their fair share of whatever returns the market is generous enough to provide, no more, no less; low cost and no sales commissions; a business strategy that departs from our structure at its peril; and serving our clients and our crewmembers with the respect and dignity that honest-to-God, down-to-earth human beings deserve. Here is where we now stand:

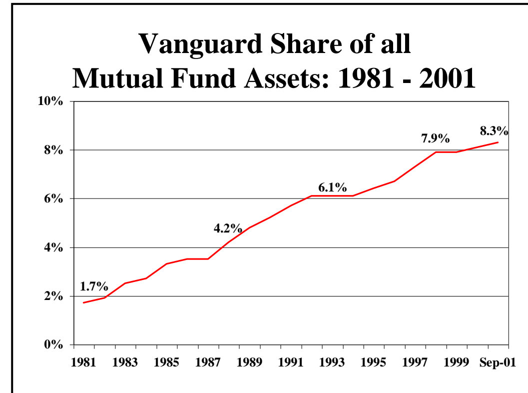
- Vanguard's assets total $565 billion. At the outset, we were the tenth largest fund firm; we now rank second, closing on the leader.
- We had eight funds when we began; we now have 105, owned by 15 million investors largely in the U.S., but scattered all over the world.

- Our original index fund is now the world's largest mutual fund, and our panoply of stock index funds total $180 billion. Our market share of no-load stock index fund assets is a dominant 82%.
- Our original troika of tax-exempt bond funds, and the similarly-structured taxable bond funds that followed—all relying on index-like strategies—total $112 billion in assets, including $24 billion in *bond* index funds. Market share: Now 45%, vs. 18% in 1980.
- Our money market funds, also capitalizing on the *low-cost-equals-high-return* equation have assets totaling $93 billion. Market share: 33%, vs. 4% two decades earlier.
- And the assets of our traditional actively-managed equity funds total $144 billion. Market share: 15% down from 25%, the inevitable result of our focus on indexing.



The magnificent returns in the financial markets—stock, bond, money market—through most of our history, really right up to the spring of 2000, have given HMS Vanguard a powerful wind at her back. Our assets have grown at a compound rate of 25% per year, and at a remarkably steady pace, carrying our asset base from $1 billion to $565 billion. But the overwhelming portion of that huge increase has come from our rising share of market. Had our share held steady, our assets today would be $110 billion. The remaining $455 billion is accounted for by the increase of our share of *total* industry assets from 1.7% in 1981 to 8.3% today—without a single year of decline. This rise in market penetration has been accomplished with but a modest marketing budget, for I have always insisted: *Market share must be earned, and not be bought.*





Looking Ahead—A Personal Note

As we look back over the three adventurous voyages I've described this evening, it's worth speculating about what may lie ahead. For the stock market, the odyssey is destined to continue, but the two easy golden decades we have reveled in are now history, and the voyage will be rougher and slower in the years ahead. For the mutual fund industry, the odyssey is already waning, and its course will—as it must—at last turn away from high-costs and fad-following, back toward our original roots of prudent management and stewardship. And for Vanguard, our fantastic odyssey, which has already helped to change the way people think about investing, will proceed with even greater alacrity in the years ahead. Unless I miss my guess, in the financial markets and the fund industry alike, we're facing an extended climate of *Vanguard weather*.

After 50 years in this business, the last 27 with the renegade firm I created all those years ago, I close with a few personal reflections. Peter Bernstein was right. *It has been no easy task.* The road has not always been smooth, and I've experienced headaches and heartaches, hopes and fears, delights and disappointments, even triumph and disaster. But, following Kipling's advice, I've treated those two imposters just the same. Truth told, I look with some bemusement about how far one can take an enterprise with common sense, a few simple ideas, a heavy dose of idealism, a focus on serving human beings, a fantastic crew, and a determination to press on regardless.

It's been a thrill to see a company that offers little more than simple investment philosophy and simple human values become a *commercial* success, but even more, an *artistic*

success. I press on in the great cause of giving Vanguard shareholders—and all mutual fund investors—a fair shake, and I reflect on my own odyssey with the words Tennyson ascribed to Ulysees when that mythic warrior returned from his own odyssey and reflected on what might be next:

So come, my friends
'Tis not too late to seek a newer world.
Push off, and sitting well in order smite
The sounding furrows; for my purpose holds
To sail beyond the sunset, 'til I die.
Tho' much is taken, much abides; and tho'
We are not now that strength which in old days
Moved earth and heaven, that which we are,
We are;
One equal temper of heroic hearts,
Made weak by time and fate, but strong in will
To strive, to seek, to find, and not to yield.