The Stock Market Universe—Stars, Comets, and the Sun

Remarks by John C. Bogle
Founder, The Vanguard Group and
President, Bogle Financial Markets Research Center
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Since last July, when I accepted the kind invitation to address you, a lot has happened in the world of investing! Then, the Standard & Poor's 500 Stock Index stood at 1500 and the NASDAQ at 4300; by the market's late December lows, before the recent upticks, these indexes had fallen to 1260 and 2330, respectively. With a decline of 22% in the total market from the March high, stocks are now, by the traditional definition, in a bear market.

While there are plenty of long faces around Wall Street, I will argue today that the decline should hardly have surprised us. For it signals a significant inflection point in stock market history, a return to (or at least toward) reality that it is all for the best in the long run. We are, I believe, now moving into a New Environment for stocks that will profoundly affect the profession of investment management throughout the coming decade, and perhaps for a whole generation of investors.

When the NASDAQ bubble at long last burst, with Internet stocks leading the way down and technology stocks not far behind, we who make investing our profession received a healthy reminder of our fallibility. What is more, the turn in the market tide has reminded us of some long-forgotten truths that ought to have been self-evident. One of these truths is that, in the field of investment management, nearly all of those experts whom we identify as stars, prove to be comets. Rather than being eternal beacons of light, most managers live a transitory existence, illuminating the financial firmament for but a brief moment in time, only to flame out, their ashes drifting gently down to earth. Of course, some outstanding managers remain, but history tells us that they are the exception that proves the rule.

Morning-Stars

Let's begin with the stars identified by Morningstar. The recommendations of this fine provider of mutual fund data, best known for the award of its "Star" ratings—Five Stars to the top tenth of funds; One Star for the bottom tenth—are tracked by The Hulbert Financial Digest. During the period 1993-2000, the total return on Morningstar's top-rated U.S. funds averaged +106%, vs. +222% for the total stock market (the Wilshire 5000 Equity Index). What is more, these funds carried a relative risk (measured by standard deviation vs. the total market) of 1.26. Achieving but 48% of the market's generous reward while assuming 26% more risk is hardly a tribute to the staying power of the stars.[1]

[1] In fairness, the cost of moving from one fund to another as the Stars shift around each month, often incurring an extra sales charge each time, had a negative impact on the Morningstar data. Nonetheless, there is little evidence to suggest that investors should navigate by the Morning-Stars.

Morningstar's Top-rated Equity Funds
1993 - 2000

	5-Star Equity Funds	Wilshire 5000
Cumulative Return	+106%	+222%
Relative Return	0.48	1.00
Relative Risk (Volatility)	1.26	1.00

Source: Mark Hulbert

While Morningstar candidly acknowledges that the stars it awards have no predictive power, my strong impression is that investors will improve their returns if they simply ignore the One-Star funds. (Most are consigned to that dismal rating because of the impact of their excessive costs.) And, measuring as they do both risk and return, the star ratings are *not* dumb. But they have two problems: 1) based as they are on the average return of *all* U.S. equity funds, the ratings heavily reward the investment style most recently in vogue; and 2) they are based on past performance—especially *recent* past performance—which is inevitably period-dependent. In investing, the past is a weak—and often counterproductive—link in the chain that leads to the future.

For example, in 1996, just before the great stock market boom had reached full fruition, technology funds were earning just 2.1 stars (30% *below* the 3.0 average) and at 2.8 stars, large growth funds were rated only slightly higher. As 2000 began, however, the growth funds' rating had leaped to 4.2 stars, and technology funds had almost reached perfection—4.7 stars, *on average*! Small wonder that the soaring ratings of technology funds and aggressive growth funds helped lure the gullible public into the fray. But those once-shining stars are now proving to be comets, their ratings fading with each passing day. Yet investors, foolishly captivated by powerful past performance, rely heavily on the Morning-Stars in selecting funds. During the past two years, more than 100% of all money flowing into equity funds was directed to 4-Star and 5-Star Funds.

Morningstar's Star Ratings:
1996 versus 2000

	Average Rating		
	1996	2000	Change
Technology Funds	2.1★	4.7★	2.2x
Large Growth Funds	2.8★	4.2★	1.5x

Source: Bernstein Research

Each year, Morningstar also names the mutual fund "Manager of the Year." Almost without exception, the brilliance of these putative stars also dims with time. Such managers have been identified each year since 1987, so we can easily track their subsequent records. Average annual returns: Funds run by Managers-of-the-Year, +12.4%; unmanaged Standard & Poor's 500 Index, +14.8%; annual top-manager shortfall, -2.4%. Three of the managers no longer manage any mutual funds, and two others no

longer supervise the funds they managed when they were honored. For the seven Managers-of-the-Year who have produced at least a five-year subsequent record, the annual shortfall gap is an even larger 3.1%—Manager, 14.3%; S&P 500, 17.4%. Each year, I wish the newly identified star well. Alas, my good wishes don't seem to carry much weight with the gods of the marketplace.

Morningstar's Equity Fund Managers of the Year

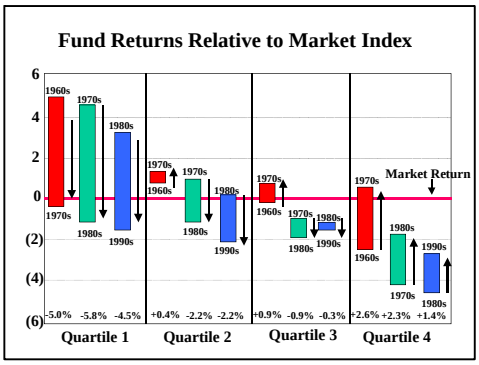
	All Winners	1987 - 1995 Winners
Annual Return	**+12.4 %**	**+14.3 %**
S&P 500	**+14.8**	**+17.4**
Manager Shortfall	**-2.4 %**	**-3.1 %**

Admittedly, the Morningstar star ratings and manager crownings have a fairly short-term history. So I now turn to a longer-term view of the mutual fund industry, examining the results of *all* broadly-diversified equity funds over the past four decades. (Since I've used the large-cap, broadly diversified S&P 500 Index as my measurement standard, my exclusion of small-cap funds and aggressive growth funds provides the fairest possible comparison.) When we examine the extent to which each decade's top-quartile funds emulate their standings in the subsequent decade, what do we see? *A massive pattern of reversion to the mean*.

Reversion to the Mean

In each decade, the top-quartile funds tumbled sharply—and rather consistently—in terms of their excess returns over the S&P 500 Index: A decline of 5.0 percentage points per year from the 1960s to the 1970s; 5.8 points from the 1970s to the 1980s; 4.5 points from the 1980s to the 1990s. By the same token, the bottom-quartile funds *improved* each decade, in each case by about two percentage points of annual return. For example, the top-quartile funds in the 1980s beat the Index by 2.8% per year, only to lose by 1.7% per year during the 1990's. During the same periods, the bottom quartile funds rose from 4.5% behind the Index to a lag of 3.1% annually.[2] One reason the top quartile funds fall back to only *slightly* behind the market, while the rise of the bottom quartile funds usually fails even to return them to the market's return, is that *top-quartile funds have below-average operating expenses and bottom-quartile funds have above-average operating expenses*. While *gross* performance reverts to the mean, fund expense ratios do not. So funds with lower expenses garner the advantage in *net* performance.) Clearly, RTM rules the mutual fund seas.

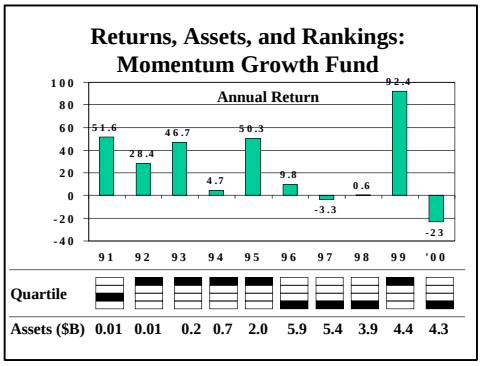
[2] More than incidentally, I should say that these measurements include only funds that actually survive the subsequent decade, so they provide a generous appraisal of industry performance.



Despite this powerful, self-evident pattern of mean reversion, the mutual fund industry both revels in it and panders to it. Why? Because past performance attracts investor attention, and investor assets. The industry aggressively promotes past fund returns—*but only when they have been are extraordinary*. The net result is that money pours into a high-performing (i.e. hot) fund only *after* the performance is achieved. To make matters worse, when the seemingly inevitable reversion to the mean (and usually well below it) takes place, investors' illusions are shattered, and the money flow first dries up and then turns negative, as investors depart the sinking ships.

Reversion in Cash Flows, Too

Let me use this selected example of small, struggling fund with 1990 assets of $12 million to illustrate how the system works. The fund's so-called "momentum" strategy—buying stocks of companies demonstrating (or projecting) extraordinary earnings growth, selling them when their earnings growth slows—produced average annual returns in the +40% range during 1991-1995. Some $4.5 billion of investor capital poured in, and assets soared to $6 billion in 1996. Then the momentum strategy turned negative, the fund's returns turned tail (+2% per year in 1996-98) and net share liquidations totaled $3.5 billion in 1997-1999. Then, the momentum style—manifested most obviously in technology stocks—returned to favor. In 1999 and the first quarter of 2000, the fund provided a +139% return, and $1.4 billion poured in. The merry-go-round momentum ceased as the quarter ended, the fund dropped by 40% in value, and the inevitable cash outflow began in October.

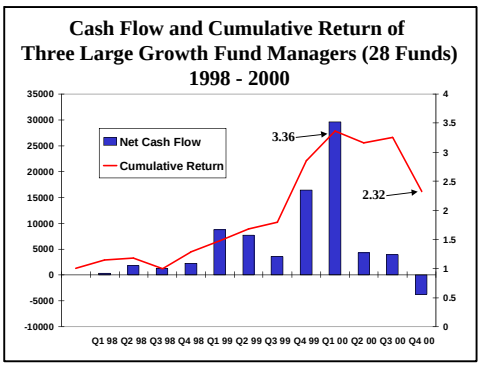


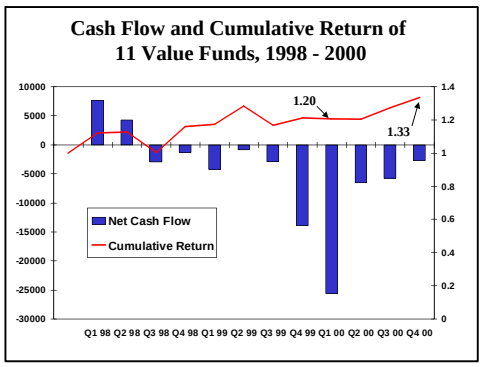
There is a disturbing aspect to this cycle of investor assets that follow performance like, as it were, a dog on a leash. While the fund itself, often due to its success when its assets were small, has

achieved a marvelous lifetime return on a *time-weighted* basis, the return it earns for its investors (the *dollar-weighted* return) often leaves much to be desired. Specifically, the standard *time*-weighted record published by the fund presents a decade-long compound return of +27.1% per year. The *dollar*-weighted return during that period, however, was about +5.5% per year. (Of course, it is the *time-weighted* record that is reported.) Put another way, while the *fund* appears to have made big money, its *investors* would have been better off with a simple bank deposit.

If this pattern—cash in at the high, cash out at the low—is prevalent, the reported record of mutual fund performance is vastly overstated. And it *is* prevalent. Month after month, money pours into hot funds run by the stars of the day, and out of the laggards. During 1998-2000, this pattern was more obvious than ever. This era was one in which technology-oriented growth funds were in the driver's seat during the first two-and-one-quarter years and in the doghouse during the final three quarters. Each $1.00 invested at the outset of 1998 in the 28 growth funds run by three of the most aggressive fund managers soared to a value of $3.36 by March 2000.

During this period, cash inflow, less than $0.5 billion in the initial quarter of 1998, soared to $30 billion in the first quarter of 2000. Then, as technology stocks tumbled, the average value of the funds dropped by almost 30%, reducing that $3.36 value at the high to $2.32. And in the fourth quarter of 2000, a net outflow of $4 billion left the funds, a $34 billion reversal of fortune. All told, investors put $3 billion into these funds in the year before the good times started to roll, but poured in $20 billion as their values soared, adding $46 billion more as performance reached the stratosphere through the first quarter of 2000. It is not a story with a happy ending.





Learning in the Mutual Fund Laboratory

It is difficult, if not impossible, to accurately measure cash flows in the financial markets. In the stock market as a whole, for example, cash flows (excluding initial public offerings) *must* offset one another. Money cannot flow into or out of technology *stocks*, for each purchase of a technology share by one investor must represent a sale by another. (This might seem obvious, but how often do we read, "Investors fled tech stocks today, pouring their money in Old Economy stocks?" Now how can *that* be?) But in the mutual fund industry, not only can cash flows exist from one style to another, they can be accurately measured. So it is easy to observe money pouring *into* growth funds and *out* of value funds, or vice versa. And pour in and out it does!

Indeed, it is an easy matter to counterpoint the performance and cash flows of the aggressive *growth* funds that I've just chronicled with the performance and cash flows of a comparable group of *value* funds. And, hardly surprisingly, the numbers are turned upside down—a virtual mirror image. While value of $1.00 invested in the growth funds at the outset of 1998 had grown to $3.36 by the first

quarter of 2000, $1.00 in the value funds had grown to a paltry $1.20. Investors were not amused by this sharp differential, and cash flow into these value funds, $7 billion in the first quarter of 1998, gradually turned negative, with outflows cascading to nearly $40 billion in the final quarter of 1999 and the first quarter of 2000—almost precisely equal to the *inflow* into our aggressive technology-laden fund group. *Just as there is RTM in fund performance, so there is RTM in fund cash flows.*

The Rowboat Syndrome

There could hardly be a more powerful—or more discouraging—example of the counterproductive behavior of investors. Following, as you might expect, the renowned "rowboat syndrome"—looking at where you have been rather than where you are going—investors moved away from value funds as their relative returns sagged, and into growth funds as their returns surged. In the long run, these investors may well be rewarded by the extra risks they had assumed. Who, really, can say that they won't be? But those who have withdrawn their investments surely will *not* be rewarded. The reversion of returns to the market mean in the past ten months has broken the earlier pattern, and the net cash flow into aggressive growth and technology funds first dried up and then turned to net liquidations as the year 2000 ended.

An interesting sidelight: The total assets of the aggressive growth funds began the period at $55 billion, peaked in the spring of 2000 at $228 billion, and closed the year at $163 billion. The assets of the value funds began at $230 billion, peaked at $303 billion, and closed at $250 billion. For all the reported cumulative +235% return achieved by the growth *funds* at the March 2000 high—and even through December an annualized return of 32%—the *investors* in those funds earned an annual return of some 10%. The value funds, on the other hand, earned a reported 10% annual return for the full period. But their *investors* earned almost the same return—indistinguishable from the return earned by the growth investors. If there is a moral to this story—and I think there is—it is this: "Stay the course."

Comparison of Growth and Value Funds

	Growth Funds	Value Funds
Cumulative Ret. 12/98 - 3/00	+235.9 %	+20.5 %
Cumulative Ret. 3/00 - 12/00	-30.9%	+10.7%
Fund Ann. Ret. 12/98 - 12/00	+32.4%	+10.1%
Investor Ann. Ret. 12/98 - 12/00	+10.9%	+10.5%

It would be nice if those of us in the investment community could blame these counterproductive cash flows on dumb investors, pulled into the market by their emotions, unwisely sharing extraordinary popular delusions and lured by the madness of crowds. But we ourselves must take much of the blame. The investment management, brokerage, and financial advisory industries *all* have a lot to answer for. In particular, mutual fund firms not only promote our most aggressive funds when the market favors them, poor as that investment judgment may prove to be, and brilliant as that marketing judgment has already proven to be. We splash soaring performance numbers all over the pages of newspapers and magazines, and on television screens from coast to coast. Our silent partners, the media, add to this cacophony of hype by lionizing "the winners" of the past year or even past quarter, and the "best funds" for the coming year.

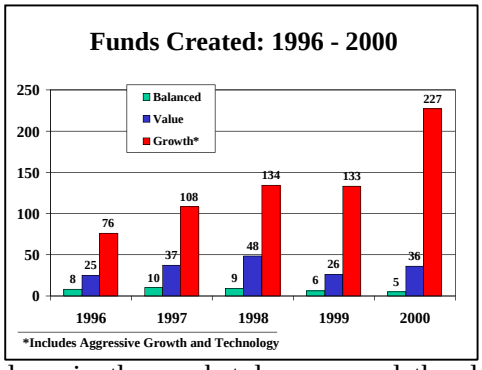
In Tune With The Times

Any doubt that the mutual fund industry was in tune with the speculative times of the late 1990s would surely be put to rest by examining the new funds offered to the public. During the past five years, 888 new equity-oriented domestic funds were created by fund sponsors, of which only 172 were value funds. 678 were growth funds (including 93 high-powered "aggressive growth" funds and 133 pure technology funds). Only 38 were balanced funds.

Let's examine just three of the trends in new fund formation:

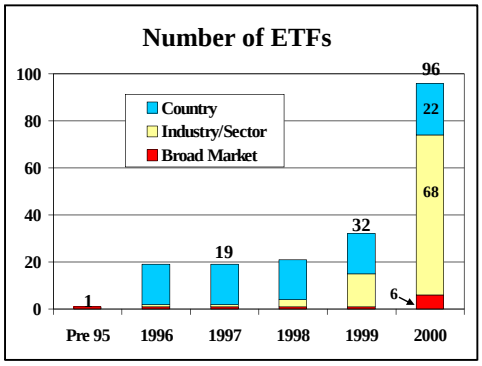
- Given the market environment, most of the 452 general growth funds heavily emphasized technology. The same momentum of the marketplace that lured the general investing public into speculation in the most over-heated areas of the market also lured the money managers, driven by the urge to profit from it by gathering more assets, in the same direction. Even some of the most traditionally-conservative fund groups leaped, however reluctantly, on the growth bandwagon. The marketing strategy worked and the money rolled in. Yes, "it's an ill wind that blows no good."
- During 1996-98, only about eight pure technology funds were formed each year. Then the explosion: 29 in 1999 and 79 in 2000 (most *before* the March high). We've all been told that, amidst the revolution in information technology, this is a New Era for investing, disregarding the fact that the worth of an enterprise is the discounted value of its future cash flows. (Yes, it *is*!). But when investors discount not only the future, but the hereafter, trouble is near at hand. Staggering values were placed on Internet companies, "first movers," and B2B providers. Nonetheless, the fund industry enthusiastically jumped on the high-tech bandwagon. Seldom has this timeless principle been more definitively proven: "The time to sell funds is not the time to buy them."
- Another new fad—"Focus" funds—also reached fruition. There were 22 funds following this strategy five years ago; since then, 75 more have been formed. These portfolios are normally concentrated in 20 or fewer stocks, with a consequent reduction in diversification and elevation of risk. It sounds logical enough that your favorite manager's favorite 20 choices will provide higher returns than his next 80 stocks, but I'm apprehensive about what the future may hold.

ETFs



If the heat of technology in the marketplace opened the door for tech-oriented funds, so its soaring turnover opened the door for Exchanged-Traded Funds (ETFs)—index funds that investors can trade in "real time." Only one ETF—the original "Spider," tracking the S&P 500 Index—existed five

years ago. That fund (and six similar ETFs formed thereafter) provided very broad diversification in the total stock market, and had the potential to actually *enhance* the value of index *mutual funds*, designed to be held for the long-term. The remaining 90 ETFs, however, are clearly designed for traders intent on speculation—the "Qubes" that track the NASDAQ are now held on average for just seven(!) days. While the seven Internet ETFs, 11 technology and telecom ETFs, and 22 ETFs indexed to single foreign countries are held for somewhat longer periods, they are nonetheless primarily used by traders. Indeed, such ETFs are so narrowly-focused that it is unimaginable they would be used by long-term investors. What is more, they are promoted as a means for investors to trade the markets all the day long. (I recently saw a television advertisement for the MSCI Korean Index iShares. It shows a woman in a store as she notices chocolates, teacups, and hats, all made in Korea. The message: "Spotted a Trend? Buy it." That hardly suggests a lifetime holding.)



We can't be certain, of course, the extent to which the fund industry was responding to, or vigorously fomenting, the growth mania that enveloped the market during the late 1990s, a mania that was to persist through the first quarter of 2000. But fund sponsors surely *tried* to foment these trends. The industry's advertising budgets soared. And it was not only the aggressive marketers—often spending more than $100 million per year on media advertising alone. Again, however reluctantly, even some heretofore parsimonious fund groups took the zippers off their wallets and began to spend scores of millions of dollars. (You've doubtless seen their ads in print or on television.) One large fund manager even paid $120 *million*(!) for the privilege of having its name placed on a new National Football League stadium. It is not far-fetched, I think, to estimate that in 1999-2000, fund managers collectively spent well over $1 billion on media advertising. Or, more accurately, that fund *shareholders* had $1 billion of *their* money spent on advertising. "Other People's Money," writ large!

And what were the fund sponsors advertising? *Performance!* While I haven't made an exhaustive analysis, I did examine the March 2000 edition of *Money* magazine. There were advertisements for 49 mutual funds, 44 of which advertised their performance. And what performance! If the *Money* reader naively believed that the funds whose advertisements he observed provided returns that were representative of the industry, he would have believed that the average fund had earned a twelve-month return of +85.6%. (In fact, the average fund had earned just 27%). An even dozen funds advertised one-year returns of more than +100%, with the winner, as it were (an Internet fund), posting a return, precise to a fault, of +216.44%. Doubtless these ads provided more capital for the stars to invest—more fuel for the fire. But the so-called stars were really comets. They promptly began to burn out, and the +85% average return for those 44 funds morphed into a –24% return over the next ten months.

Perfect Timing . . . In a Sense

Last year, two funds were formed that will go down in history as the paradigms of the paradox that the time to sell is not the time to buy them. Early in 2000, a giant brokerage firm formed a pair of funds clearly designed to capitalize on the madness of the crowds. One was a *Focus Twenty Fund*, run by a newly-acquired star manager fresh from having produced a +40% annualized return (truth told, over only 19 months) for a comparable fund. The new fund sought capital appreciation by investing in "rapidly growing companies that possess *certain growth strategies*," and ranked each company "by factors such as positive earnings surprises and upward earnings estimate revisions." The other new fund was an *Internet Strategies Fund*, investing in a star concept*;* owning "stocks of companies that will use the Internet as *a component* of their business strategies." (The two italicized phrases suggest the vagueness of the funds' investment strategies.)

Boiler-plate language describes the risks associated with the funds: Limited diversification, the Internet industry, companies having limited product lines and a smaller number of key personnel, etc. Still, the prospectus assured us that the funds, "may be an appropriate investment for you if you are investing with long term goals such as retirement or funding a child's education." (A notorious conservative, I'm not so sure about the appropriateness of such risky strategies for such serious goals. For my grandchildren, I invest in Vanguard's Tax-Managed Balanced Fund—50% intermediate-term municipal bond funds, 50% all-stock market index fund.)

The two new funds were offered at an initial net asset value of $10.00 per share, plus a 5.5% base sales charge, paid in a lump sum at the outset or spread over five years, with a commensurate fee if shares are redeemed. Their annual operating expense ratios, depending on which class of shares was owned, was projected to run from 1.25% to a hefty 2.25%. But the drag of those sales charges and costs didn't seem to matter in the exuberant market environment of early 2000. The firm's brokers had something timely to sell, and sell them they did. Droves of clients flocked into the funds, investing $2 billion of their capital in the new funds—$1.1 billion in the Internet Strategies Fund and $0.9 billion in the Focus Twenty Fund. The underwriting took place on March 14, 2000, four days after the NASDAQ hit its all time high of 5,048. The timing was, in a sense, perfect.[3]

Apres moi, le deluge! No sooner was the offering sold than the market plunge began. Both funds suffered through the spring, stabilized in the summer, tumbled in the fall and reached bottom (so far) as winter began. Investors who paid $10.55 per share saw their shares of the Focus Twenty Fund recently valued at $4.88, a long way from the 40% annualized gain that the prospectus had linked to manager's previously recorded. Shares of the Internet Strategies Fund did even worse, valued at $3.43. All told, of the funds' $2 billion of initial capital as the market tumbled and the Internet bubble burst, $1.25 billion had vanished into thin air.

The timing and fate of these two supercharged growth funds shows how counterproductive it is to invest on the basis of the popular styles of the moment. The same thing is true of investing on the basis of past performance. It is not only a loser's game, but a loser's game in which the losses can be large. Yes, the investor is often his own worst enemy. Yes, the marketing colossus known as the mutual fund industry provides the weaponry which enables investors' to indulge their suicidal instincts. No, the fund industry was hardly an innocent bystander in the market boom and the subsequent carnage. "We have met the enemy and he is us". . . *all* of us.

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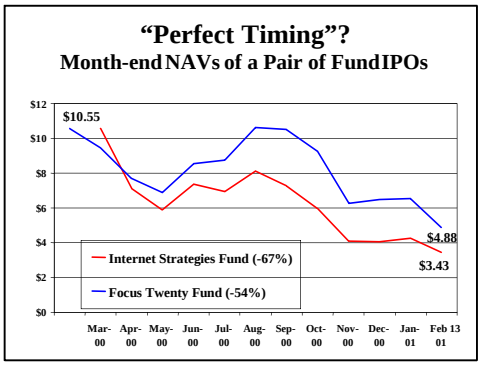
[3] In a wonderfully appropriate move, the firm relied on a "virtual road show" on the Internet for the Internet Strategies Fund IPO. One of its executives bragged, "we wanted to do this quickly . . . the Internet fund was a hot property and catching a lot of flows in the industry." The fund industry has moved a very long way from stewardship.

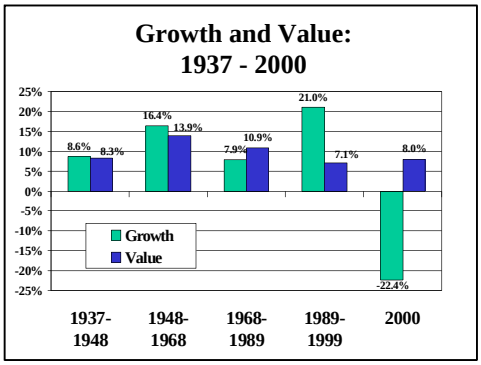


Growth vs. Value

It's not just the recent era in which the tug-of-war between growth and value has materialized. It's been part of the investment landscape ever since investment managers decided to sort their styles into those two categories. The distinction, as far as I can tell, goes back to the mid-1930s, when some of the sponsors of the traditional dividend-income-oriented equity mutual funds decided they needed growth funds in their "product line." My favorite example: The trustees of Massachusetts Investors Trust, the nation's first and then largest mutual fund created a second fund and named it, of all things, Massachusetts Investors *Second* Fund. (This imaginative[?] choice clearly preceded the age of marketing that was later to envelop the industry.) In 1960, its name was changed to Massachusetts Investors Growth Stock Fund.

As awkward, imprecise, and inherently misleading as those monikers—growth and value—are, the distinction between stocks with high growth rates, high price-earnings ratios and high price-to-book-value ratios and stocks with *low* growth rates and low p-e and price-book ratios is a credible distinction. Growth portfolios should provide—and have provided—a greater portion of their total investment return in the form of capital appreciation, a greater volatility, and, at least theoretically, a lower portfolio turnover. Value portfolios on the other hand, should provide—and have provided—a greater portion of return through dividend income, a lower volatility, and a higher portfolio turnover. There are important tax considerations involved in this distinction, since growth portfolios should command an after-tax advantage of 1% to 2% in annual return—a staggering long-term advantage for investors in high tax brackets.

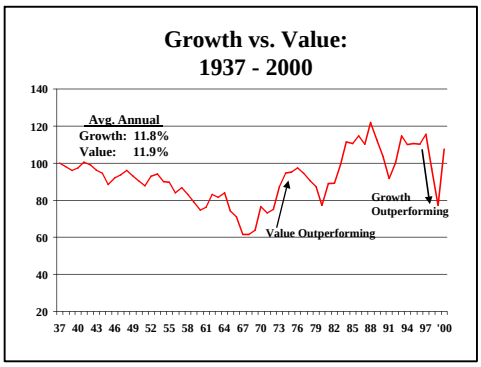
The question, of course, is whether it is growth or value which provides the higher pre-tax returns. Again, the mutual fund laboratory is a wonderful place to test the issue. Years ago, I analyzed the records of growth funds and value funds going back to 1937, long before the inception of the S&P/Barra Growth and Value Indexes, which date back to 1975. Linking my data with the data for these two indexes during the entire 63-year period, it is clear that the relative returns of the two investing styles move back and forth. For a prolonged period at the outset (1937-1948), their results were similar: Both styles earned returns of about 8.5%. Then Growth was in the driver's seat for fully 20 years, turning in a +16.4% return in 1948-1968, vs. +13.9% for Value. Next, Value was ascendant for two-plus decades, earning +10.9% annually vs. +7.9% for Growth through 1989. Then, Growth took over—with a fury!—for the next eleven years. Through 1999, it was Growth +21.0%, Value +7.1%. That annual margin couldn't persist forever, of course, and in 2000—the greatest (if longest-awaited) comeuppance for Growth during the long period I've evaluated—Value gained +8.0%; Growth lost –22.4%—a 30.4% difference in return.



Reversion to the Mean

Clearly Sir Isaac Newton's revenge on Wall Street is at work here! *Reversion to the mean*. Again! What goes up (above the market mean) must go down (below the market mean). This law of gravity—which affects all broad classes of stocks (large vs. small, U.S. vs. international, etc.)—is the classic manifestation of the eternal dynamics of the stock market's extraordinary ability to arbitrage present reality against future expectations. RTM may take place slowly or quickly; it may take place in spasms or over cycles; but take place it does. And it can correct long-standing imbalances in a trice. For example, the reversion to the mean that took place last year—up with Value, down with Growth—brought these two market segments almost to equivalence since 1989, the second year of the 11-year ascendancy for growth stocks. The record for that period now shows annual returns of +16.6% for Growth, and +15.4% for Value.

In the very long run, the cycles have ironed themselves out and, at least in my view, there is no reason to expect either style to outpace the other over time (despite the important tax advantage for the growth investor). And the 1937-2000 record is witness to the profound pervasiveness of RTM. Despite all the cycles, the record for the past 63 years shows these annual rates of return: Growth, +11.8%; Value, +11.9%. Now to be sure, some brilliant academics disagree with my conclusion. In their seminal 1992 paper, Professors Fama and French showed that low p/e, low market-to-book stocks had provided higher returns than high p/e, high market-to-book stocks. But I would observe that their study, which covered the period 1963-1990, shares a common limitation with every other study of investment returns that has ever been undertaken. *It was period dependent*. And it happens to have coincided quite neatly with the era of Value investing that took place from 1968 through 1989. Yet for ten long years following their study, it was Growth that, by a wide margin, sat in the drivers' seat.

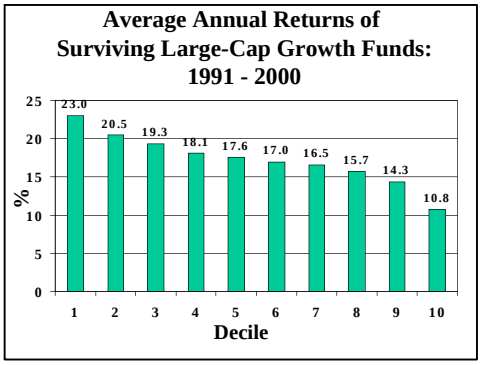


I'm a firm believer that RTM is a pervasive investment principle. So place me in the camp of those who believe that neither strategy—Growth or Value—has an inherent long-term edge. Neither strategy, then, has the durability of a star. Both are comets—comets with long tails, but comets nonetheless. Yet as we observe these extended cycles of mean reversion, it must occur to you that investors ought to be able to capitalize on them, riding one horse until it tires, then leaping to the other. Sad to say, too many mutual funds and mutual fund investors are doing the exact *reverse* of that strategy, waiting nervously as the cycle develops, finally succumbing to temptation and jumping aboard as it approaches its peak, only to suffer the consequences when the seemingly inevitable RTM takes place. And doing the reverse takes more courage and foresight than most of us have. Speaking for myself, I have the ability to forecast neither how much of this recent reversion to the mean in favor of Value remains, nor when it will end. If you are smart enough to know, please be my guest and act accordingly. Good luck!

If You Can't Foretell, Diversify

So here is my simple conclusion: *If you can't foretell the future, diversify*. *Stop* taking your chances with comets that are all too often disguised as stars. *Go* right to the center of the universe and own the sun. If you can't consistently switch back and forth from growth to value (or large-cap to small-cap) at or near the half-dozen or so inflection points that will occur during an investment lifetime, just own the entire U.S. stock market. Own the stocks of every public corporation in America, weighted by their market capitalizations, and hold them forever . . . Warren Buffett's favorite holding period. I firmly believe that such a strategy—when administered with effectiveness through a low-cost, highly tax effective all-market index fund—is the ultimate winning strategy for the long-term.

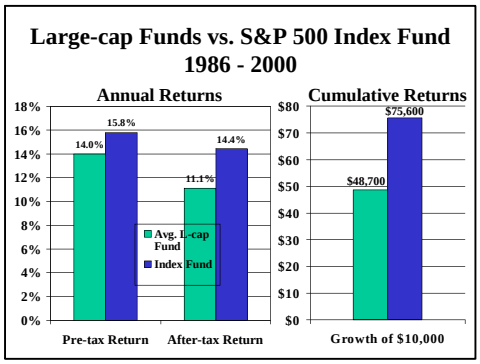
One wonderful aspect of this all-market strategy is that it eliminates three of the four great risks of investing: (1) the risk of individual stock selection; (2) the risk of picking the wrong investment style, or even the right style (if there is one) at the wrong time; and (3) the risk of selecting the wrong manager to implement whatever style you choose. (The diffusion of returns among managers in a given style is *huge*: The top decile of all large cap growth managers that survived the past decade earned an annual return of +23%; the bottom decile just +11%.) Of course, one great risk remains: stock market risk. And in the New Investment Environment we face today, the risk of a further serious decline in the stock market is anything but trivial. Nonetheless, both the history of our financial markets and the future growth and productivity of American business suggest that owning the U.S. stock market for a lifetime should pose extremely limited risk for those who have the courage to stay the course. There are, indeed, few better alternatives to long-run capital appreciation.



Whatever the market's future return, we can be certain that, because of the heavy costs of financial intermediaries, few investors—and few mutual funds—will capture 100% of it. I remain convinced—this may not surprise you—that the market index mutual fund is the best way to emulate the 100% goal. Consider this representative example, comparing the returns of large-cap mutual funds with the Standard & Poor's 500 Index during the past 15 years. (To be more than fair to the funds, I've included only those funds that actually *survived* the period. More than half of all funds in business during that period no longer exist.) These large-cap funds turned in a pre-tax return of +13.98% per year vs. +15.80% for a low-cost index fund pegged to the S&P 500 Index. After-tax returns: Funds +11.13%, index fund +14.44%.

The simple index fund outpaced nearly 80% of its managed fund peers on a pre-tax basis, and more than 90% of them on an after-tax basis. Cumulatively, $10,000 in the average large cap fund grew to $48,700; $10,000 in the S&P 500 index fund grew to $75,600. That's what happens when we compound those few percentage points of extra annual return over just 15 years. I'll spare you exactly what the difference would amount to over an investment lifetime, but if you are guessing you'd have $4.00 in the index fund for each $1.00 in the managed fund, you'd be in the right ballpark.

Is such a gap likely to persist? Unequivocally, yes. Why? Because the gap is largely engendered by the high management fees, operating costs, and portfolio turnover costs that mutual fund managers incur on behalf of their shareholders. (If fund managers slash their costs and start investing for the long term, that would be another story.) Yes, once investors recognize the difficulty of deciding whether they're seeing a star or a comet, they'll have no trouble recognizing the sun—"that lucky old sun (that) has nothing to do but roll around heaven all day."



That Lucky Old Sun

The fact is that simply following the sun—owning the stock market, receiving whatever rewards it bestows and assuming whatever risks it entails—has proven to be the optimal investment strategy. Because of the frictional costs of investing, the sun is *certain* to outpace the returns of all of those comets and stars put together—all investors as a group, all managers as a group, all investment styles as a group. Yes, there have been some star investors, but they are precious few, and I take my hat off to them. But no, there is no way to be certain how long today's stars will remain in that celestial realm. Nor have I ever seen any methodology by which tomorrow's stars can be identified in advance. But beyond serious refutation is the evidence that the overwhelming majority of yesterday's stars are destined to be tomorrow's comets.

You may recall that after his travels, Ecclesiastes, *"returned and saw under the sun, that the race is not to the swift nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding . . . but time and chance happeneth to them all."* In that ancient wisdom from the tenth century B.C., investors today will find not only consolation, but reaffirmation that the sun remains at the

center of the investment universe. By following it, we can in fact win the race without being swift, the battle without being strong, the bread without being wise, the riches without understanding. But investors do need enough wisdom to understand the lesson! Once we have absorbed it—often, alas, only after hard experience—and then acted on it, we need only time to help us build our wealth. While the inevitable chance that exists in the financial markets will periodically challenge our resolve, we can at least be confident of earning our fair share of whatever long-term returns the market may provide.

Note: The opinions expressed in this speech do not necessarily represent the views of Vanguard's present management.