Investing in Times of Market Turbulence

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These are turbulent days in the financial markets, and market participants are looking for answers about what they should do. But my answers depend on just who it is that is asking the questions. This distinction is as unique as it is self-evident.

If the questioner is a *speculator*, buying and selling stocks with the focus on their momentary prices, inevitably acting on emotions, and guessing (usually fruitlessly) about how *other* investors here in the U.S. and around the globe will respond to unpredictable volatility in the world's stock markets, I'm not sure I have the credentials to advise him. But if I did, I'd say—as I've been saying since early August when the U.S. market reached its high—"Get out. And stay out." At least until the markets settle down a bit. (Of course, I have no ideas when that might be.)

If, on the other hand, the questioner is an *investor,* holding a highly-diversified balanced portfolio that includes bonds and both U.S. and global stocks, with the equities focused on the *economics* of investing—the dividend yields and potential earnings growth of our corporations—not the *emotions* reflected in the actions of speculators, I'd say, as I also did last summer: "Don't do something, just stand there." Or, perhaps more graciously, "Stay the Course."

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

Basic Values and My Princeton Thesis

This distinction between speculation and investment is age-old. Indeed, I first expressed it in my 1951 Princeton senior thesis, "The Economic Role of the Investment Company." Since then I've experienced at least four bear markets, each of which was followed by a bull market that ultimately more-than-erased those painful but often short-lived losses. This experience has only confirmed the basic values that I continue to hold about investing, formed during my study of Economics at Princeton more than a half-century ago.

Writing my thesis about mutual funds was a happy accident. Late in 1949, I stumbled upon the December issue of *Fortune* magazine and learned for the first time that something called "the mutual fund industry" existed. When I saw the industry described as "tiny but contentious," I knew immediately that I had found my thesis topic.

Over the next 18 months, I spent countless hours researching the industry, trying to understand it, and then writing my thesis. Remarkably little public information was available about this field, then consisting of some 130 mutual funds with assets aggregating just $2½ billion. That lucky choice led to a job at fund pioneer Wellington Management Company (founded by Princeton's Walter L. Morgan, '20), a career in which I headed up the firm beginning in 1965; did an unwise (even stupid) merger in 1966 that got me fired in January 1974; and started Vanguard nine months later. Today, industry assets exceed $12 *trillion*, and Vanguard's assets alone exceed $1.3 *trillion*, one of the industry's three largest firms. Think about it*: no Princeton, no thesis. No thesis, no fund career. No fund career, no Vanguard.* Of course, it pains me even to contemplate that eventuality.

Read today, my thesis would probably impress you as no more than workmanlike, perhaps a bit callow, but above all, shamelessly idealistic. And you *can* read it, for seven years ago it was published by McGraw-Hill as part of *John Bogle on Investing: the First 50 Years*. (If you wait a half-century, perhaps anything can be published!) On page after page of the thesis, my youthful idealism speaks out, calling again and again for the primacy of the interests of the mutual fund shareholder.

At the very opening of my thesis, I get right to the point: Mutual funds must not "in any way subordinate the interests of their shareholders to other economic roles. Their prime

responsibility must always be to their shareholders." Shortly thereafter, "there is some indication that costs are too high," and that "future industry growth can be maximized by concentration on a reduction of sales charges and management fees." (My advice, however, fell upon deaf ears.)

After analyzing mutual fund performance, I concluded that "funds can make no claim to superiority over the market averages," perhaps an early harbinger of my decision to create, nearly a quarter-century later, the world's first index mutual fund. Still later in the thesis, I urged that "fund influence on corporate policy . . . should always be in the best interest of shareholders, not the special interests of the fund's managers." (Again, my advice fell by the wayside, and shareholders remain ill-served by the passive governance policies of most funds.)

Finally, I predicted that rather than engaging in short-term speculation focused on forecasting the psychology of the stock market, funds would bring far greater focus on wise long-term investment. Defying Lord Keynes's prediction that professional investors would join the ignorant crowd of stock traders, I predicted that fund managers would be "steady, sophisticated, enlightened, and analytic" institutional investors, focused on corporate performance and intrinsic value rather than momentary and evanescent share prices. (Once again, I was wrong. Fund portfolio turnover, about 16 percent during my first two decades in this field, soared to 100 percent during the recent era.)

My conclusion powerfully reaffirmed the ideals that I hold to this day: "The principal function of investment companies is the management of their investment portfolios. Everything else is incidental." The role of the mutual fund is to serve—"to serve the needs of both individual and institutional investors . . . to serve them in the most efficient, honest, and economical way possible."

This gratuitous advice about efficiency, honesty, and economical operation from a callow college senior was also largely ignored by the fund industry. But the creation of Vanguard in 1974 as a truly *mutual* mutual fund group—operated on an "at cost" basis for the benefit of its owners rather than its managers—was my attempt to walk the walk that I had talked the talk about nearly a quarter-century earlier. Today, I assure you that my youthful idealism remains intact. Indeed, it is shamelessly reflected not only in Vanguard but in my book *The Battle for the Soul of Capitalism*, published by Yale University Press in 2005, and also in *The Little Book of Common Sense Investing*, published by Wiley in 2007. *The Battle* expresses my concern about

what has gone wrong in our nation's corporate, financial, and mutual fund sectors, while *The Little Book* offers common sense advice on how to invest intelligently for the long term. (Hint: It recommends index funds as the core investment in individual & institutional portfolios.)

Investment and Speculation

Now, before I turn to the recent turbulence in the markets that I'm sure is on many of your minds this evening, I want to focus on the fundamental distinction between investment and speculation that I first touched on in that ancient thesis. Echoing the inspired wisdom of Lord Keynes, I defined *investment* as "forecasting the prospective yield on an asset" over its entire life. (Keynes used the term *enterprise* to describe this practice; today finance teachers describe it as *discounted future cash flow.*) *Speculation*, on the other hand, is "the activity of forecasting the psychology of the market."

When I speak of *investment* return, I speak of the current dividend yield on stocks plus their subsequent rate of earnings growth, together representing the real return on corporate capital. When I speak of *speculative* return, I speak of the impact of the change in the number of dollars that investors are willing to pay for each dollar of corporate earnings. Simply add the two together and, *viola*! we have the total returns generated in the stock market

Here's the point: Over the very long run, it is the *economics* of investment—enterprise—that has determined the total return on stocks. The momentary *emotions* that surround investing—speculation—so important over the short run, have ultimately proven to be virtually meaningless. Example: The 9.6 percent average annual return on U.S. stocks during the past century, has been composed of 9.5 percentage points of investment return (an average dividend yield of 4.5 percent plus average annual earnings growth of 5 percent), and only one tenth of one percent of speculative return, borne of an inevitably period-dependent increase in the price-earnings ratio. Despite the transient booms and busts of stock market history, for investors who have stayed the course, buying and holding a portfolio across *all* of American business, has been an extraordinarily successful strategy.

What's more, the *investment* return on stocks has proven to be remarkably susceptible to reasonable expectations. The dividend yield on the date of investment—a crucial but underrated factor in shaping stock returns—is a known factor. The secular rate of earnings growth, while

hardly certain, has been remarkably stable. Corporate earnings have, with considerable consistency, grown at about the rate of the U.S. Gross Domestic Product (GDP). In the Great Depression, of course, corporate earnings plummeted, just as they have risen, seemingly inevitably, with the long-term growth of our productive, innovative, and competitive U.S. economy.

The *speculative* return on stocks has proven to be, well, speculative. It has alternated from positive to negative over the decades. But usually when price/earnings ratios are historically low (say, below 10 times) they have been likely to rise over time. And when they are historically high (say, above 20 times) they have been likely to decline. (Of course in neither case do we know *when* the change is coming.) While certainty about the future never exists nor are probabilities always borne out, applying reasonable expectations to investment return and speculative return and then combining them has proved to be a sensible and effective approach to projecting the total return on stocks over the decades.

Relying on this simple but proven methodology, then, it is reasonable to expect annual stock returns in the range of 7 percent in the coming decade, well below the long-term norm of 9.6 percent. The dividend yield is 2 percent (not the 4 ½ percent norm of yesteryear), and earnings generated could reach 6 percent, a total investment return of 8 percent. But I'm guessing that earnings multiples are likely to be lower a decade hence, with the speculative return reducing that figure by about a percentage point. In sum the economics of investing are unlikely to be as good as in the past.

Here's the point: When our markets are driven by economics, the underlying power of our corporations to earn a solid return of the capital invested by their owners drives the long-term returns that are earned by equity investors. But in the interim, when our markets are driven, as they are today, by emotions—hope, greed, and fear; the speculative, counterproductive swings from the ebullience of optimism to the blackness of pessimism—be ready for turbulence.

The Age of Turbulence

To be sure, every era has its times of turbulence and its times of stability and growth. But surely the 21st century, the new and present millennium, has begun with turbulence riding in the saddle of the stock market. Indeed, no sooner had the year 2000 begun than the market stocks

began to tumble (admittedly, from a highly inflated level of 1,520 on the S & P 500 Index), plummeting to 770 in October 2002, the bottom of a bear market in which fully 50 percent of the values of U.S. stocks had been erased.

Five years later, in October 2007, the S&P 500 had recouped all of the lost ground (plus a tiny bit), a 110 percent gain to 1580. (A reminder: down 50 percent and up 100 percent nets out to a return, not of plus 50 percent but of zero. Do the math!) Then, stocks tumbled to below 1300, a 16 percent retreat, still short of the 20 percent dip that Wall Street defines as a "correction," today recovered to 1354, whatever exactly that means to a long-term investor. What's more, while during the 1950s and 1960s the daily changes in the level of stock prices typically exceeded two percent only three or four times per *year,* since last July alone, we've witnessed 19 such moves, 10 downward and 7 upward. (Almost another one today – 1.7 percent.)This kind of volatility, to state the obvious, reflects the expectations of speculations, not the real returns of business sought by investors.

Of course it's tempting for investors to think they can take advantage of these extreme fluctuations. But the evidence goes the other way: Staying the course through thick and thin has been the winning strategy. For example, since 1950, the Standard & Poor's 500 Stock Index has risen from a level of 17 to a recent level of 1,350, a compound (price-only) annual return of 8 percent. But if you missed the returns achieved on the 40 market days in which it had its highest percentage gains—only 40 out of 14,588 days!—the Index would be at just to 280, an annual return of just 5 percent. There is a lesson to be learned here about the impossibility of successfully jumping into and out of the market, rather than simply staying the course.

How Did We Get Here?

The soaring volatility in the financial markets is a product of many forces. Surprisingly enough one is the institutionalization of the stock market. The change is dramatic: Over the past half-century, individual ownership of stocks by individual investors has dropped from 92 percent of the total to 26 percent. Institutional ownership—largely by mutual funds and corporate and government pension funds—has soared from 8 percent to 74 percent—quite literally, a revolution in stock ownership that has changed the nature and structure of our financial markets.

Part of the problem is that these giant institutions, once focused on management, began to focus on marketing, in order to build their own profitability. Let's call that: the triumph of salesmanship over stewardship. Innovation became the watchword, but it was innovation that served managers rather than investors, exemplified by "hot fund products" and complex and risky derivatives.

If these institutional agents—targeting our nation's pension managers and mutual fund managers (34 percent of U.S. stock *alone*!)—had continued focused solely on the interest of their principals, the consequences of that remarkable mutation could have been modest. But these agents—now largely controlled by giant U.S. and international financial conglomerates—have too often put their own interests ahead of the interests of those whom they are duty-bound to serve, those 100-million-plus fund shareholders and pension beneficiaries who inevitably feed at the bottom of the food chain of investing.

This innovation contributed to the soaring cost of the investment food chain, now estimated at $560 billion per year. (Up from about $25 billion in 1990.) Why is that a problem? Because the aggregate of the manager's fees, expenses, and profits, plus portfolio trading commissions and other costs, are deducted from whatever gross returns our financial markets are generous enough to deliver, and the investors who put up the capital get only what's left. If the market's annual return proves to be 7 percent over the coming decade, and if the costs of investing are 2 ½ percent (as in mutual funds), these investors as a group will earn 4 ½ percent. Gross return, minus cost, equals net return. What I call (after Brandeis), "the relentless rules of humble arithmetic." (If we adjust for 2 ½ percent inflation, that nominal return would be only 2 percent per year. (Leave out taxes which cost investors in active funds another 1 percent per year)

And to make matters worse, precisely the opposite of what I predicted in my thesis has happened. Money managers have largely failed to supply the stock market with demand that is (as I said earlier) "steady, sophisticated, enlightened and analytic . . . focused on corporate performance rather than share prices." In fact, our money managers have done precisely the reverse. I would argue, then, that our now-dominant institutional agents have not only failed to honor the interest of their shareholders/beneficiary *principals*, but they have also abandoned the time-honored investment *principles* that focused on the wisdom of prudent long-term investment, and turned instead to an excessive focus on short-term speculation.

The Recent Turbulence

To be sure, financial institutions have held the majority of all U.S. equities—and, arguably, been in a position to control corporate America—since 1980, and their focus on short-term expectations has been in place even longer. So what is it that accounts for the recent surge of market turbulence? To begin with, in this new environment, the *raison d'être* for money managers, and basis by which they are held accountable, became the maximization of the value of the investments made by their clients, measured over periods as short as years or even quarters. Even as institutional managers turned increasingly to speculation (versus investment, just as Keynes had predicted), corporate executives became increasingly attuned to short-term profits and the stock-market valuations of their firms. I call this a "happy conspiracy" among institutional owners of stocks and corporate managers and directors to focus more on stock prices than on long-term intrinsic values. Again, prices are speculation, values are investment.

A second relatively new development is the rise of derivative instruments such as futures and options on the stock market—which, paradoxically, can be used with equal effectiveness both for risk control and for rank speculation. These future and option markets are also a contributing cause of the recent turbulence. Another cause is the availability of cheap credit, as global savings soared and an avalanche of dollars chased debt instruments. And yet another, related to cheap credit, is the mind-numbing complexity of derivative instruments that appeared to offer higher returns for those who borrowed short and invested long. Any one of these relatively new (for this cycle) developments would have added to market turbulence. Together, their combined impact has been devastating.

Let me give you one specific example of how our investment system has been overwhelmed by a system of speculation. In 1957, the market value of the stocks in the S&P 500 Index was $220 billion, and Index futures and options markets did not ever exist. By 1982, the value of S&P 500 had soared to $1.2 trillion and newly-created S&P futures and options outstanding totaled $438 billion, about *one-third* of the value of the Index itself. By the beginning of 2007, with the S&P 500 valued at $12 trillion, futures and options contracts on the Index had soared to $20 trillion, an "expectations market" valued at almost *double* the value of the "real market." It should go with out saying that when derivatives such as futures and options are short-term bets on stock prices, (as happened in that $7 billion debacle at Societe' General), it is the very essence of speculation.

As I talk about turbulence with you, I find it ironic that former Federal Reserve Chairman Alan Greenspan chose "The Age of Turbulence" as the title for his recent book. As skilled as he may have been in directing our central bank, he did much to bring that turbulence about. His adamant refusal to have the Fed take a stand in setting stringent credit standards for bank lending and mortgage issuance has been well documented, and his determination to hold down interest rates far longer than economic conditions seemed to dictate did much to feed speculation in the bond and stock markets. It will be interesting to see how history finally treats this icon of central banking. (Chou En-Lai on the French Revolution.) So it is with so many things. "Too soon to tell!"

Today's turbulence reflects in important measure the failure of our commercial banks and investment banks to consider the extraordinary risks of the securities they were creating and marketing, and earning billions in fees and commissions, even as they were left with tens of billions of dollars—even hundreds of billions—on their own balance sheets.

Given Wall Street's ever-pressing need to have something, anything, to sell in the way of "new product"—it is hardly surprising that these collateralized debt obligations (CDOs) became ever more complex, with risk even more deeply concealed. In league with SEC-registered rating agencies (which were paid, as I understand it, some $400,000 for each issue on which they placed their imprimatur), an estimated one trillion dollars of new CDOs were created entirely out of subprime mortgages. While individually these mortgages were of dubious credit quality, the CDOs created various "tranches," with about 75 percent rated top investment grade - AAA, on the assumption that any defaults would impair only the lower rated series. Alchemy? No, lead is still lead, not gold.

How, I wonder (and I'm sure that you wonder too), could they have been so unmindful, so cavalier, so craven about the credit risks that so quickly came home to roost? And how much more is yet to be disclosed about the deteriorating market prices of these complex instruments?

We'll someday know. But we already know some sadly informative anecdotes. Charles Prince, chairman of the giant Citigroup, said it last summer as well as any friend—or foe—of the situation could have: "As long as the music is playing, you've got to get up and dance. We're still

dancing." (Rubin never heard of the "liquidity put." Yet, as 2007 ended, Citigroup would write-down an astonishing $22 billion for expected future losses on CDOs and consumer loans). For Merrill Lynch, the write-down was $22 billion. Following a long age of cheap credit and rife credit availability and borrowers with high confidence and low collateral, we are beginning to pay the price, even as our economy itself faces a whole plethora of other risks created by our financial system.

The key question is the extent to which these problems in our financial system will infect our economic system. The long boom in the real estate market has now turned down, with home prices in retreat, even as the same thing happened in the stock market early in 2000, and stock prices are now below the levels they reached eight long years ago. As I see it, our policy makers are running scared, with the Federal Reserve making credit available to banks (a good, and necessary step) and driving short-term interest rates down (great for borrowers but terrible for lenders and savers, and probably terrible for the dollar). I'm not at all sure that this is sound policy-making, for it increases the likelihood that inflation will rear its ugly head later on. Maybe, just maybe, we should *not* intervene and just let the markets clear.

Our political leaders, too, seem to have pressed some sort of panic button, enough (apparently) to unite a Democratic congress and a Republican administration in an election year. But I'm also concerned that the $150 billion fiscal stimulus plan—right out of Keynesianism—will not provide much in the way of stimulating the economy, even as it adds to an already staggering deficit in the Federal budget. (Yes, giving money to "the people" has a cost, even though I've yet to see an acknowledgement of that yet. It must be paid for, either by taxation or by borrowing, and ultimately with devalued dollars.)

In short, it is by no means clear that this combined blast from our monetary masters and our fiscal authorities will make a large difference. Not only are our markets driven by the confidence of investors putting their dollars on the line, but our economy is driven by the confidence of consumers spending on their needs and wants, and corporations, spending to enhance the returns on their capital.

The inherent risk in the stock prices—in the first instance based on speculation, emotions, and investor psychology—may well carry over to the performance of our economy, now approaching—if not already in—recession. If that is the case, we will see the present leveling off

of corporate earnings growth, followed by actual earnings declines. Thus the probabilities favor continued market turbulence—and some economic turbulence as well.

These risks of investing in business and in the economy are well known. But there are other huge, seemingly unacknowledged risks out there in our society. The risks presented by the Social Security and Medicare payments committed to by our national government. For that matter, the staggering string of huge (and in fact understated) deficits in our Federal budget. Our enormous expenditures (soon to reach $1 trillion) on the wars in Iraq and Afghanistan, bleeding the resources of our empire. Terrorism; the threat of global warming and the cost of dealing with it. Unfettered global competition, our trade deficit, and the decline in the value of the U.S. dollar.

There are other risks, too, more subtle in nature. Forgive me here for going where angels fear to tread but, a political system dominated by money and vested interests; a Congress and an administration seemingly focused entirely on the short-term, the long-term consequences be damned. The vast chasm between the very wealthiest among us (the top 1 percent of our citizenry holds more than a third of our total wealth) and those at the bottom of the economic ladder (some 20 percent of New York City residents earn less than $8,300 per year). Our self-centered "bottom-line" society, focused on money over achievement, charisma over character, and the ephemeral over the eternal. And finally, the paucity of leaders who are willing to, well, lead—to defy the conventional wisdom of the day and to stand up for what is right and noble and true.

So the risks are high; the uncertainties rife. Yet perhaps we'll muddle through. After all, throughout our 230-year history, America has always done exactly that. Perhaps, once again, our society and our economy will continue to reflect the resilience that they have demonstrated in the past, often against all odds. And perhaps we'll come to our collective senses and develop the courage to take arms against this sea of troubles I've described and by opposing, end them. If we do, the stock market will undoubtedly respond and resume the upward course that is based on the intrinsic economic value of business growth.

Let me close by acknowledging that I'm conservative and, I'm well, getting on in years, I've followed my own advice and am about 68 percent in bonds and 32 percent in stocks—all Vanguard and overwhelmingly in index funds. But each of us is different. So even if risks are high and uncertainties abound, we must consider not only the probabilities of our investment decisions, but the consequences that we face if we are wrong. This, of course is the famous

Pascal wager, conceived as a bet on whether or not God exists. (Pascal concluded that, considering the consequences, the safer bet was that He existed.) As Peter Bernstein explained the wager, "considering the consequences of being wrong is essential in decision-making under uncertainty." So I urge you all not only to weigh the probabilities of where our markets and our economy are headed in this age of turbulence and uncertainty, but also weigh the consequences to your own portfolios if you are wrong. If you follow these rules, you'll be able to ride out today's risks and uncertainties with favorable consequences.