Leithner Letter No. 196-197: 26 March-26 April 2016

The first thing advisors need to be careful about is overconfidence. Some professionals tend to make fun of individual investors for buying high and selling low, but … there are very few historical cases of a market run-up or a market collapse where the people earning sales commissions did not behave at least as badly as the general public acting directly. When you are overconfident, by definition you don't believe you are wrong. This is really a key thing for advisors to bear in mind.

Advisor Perspectives
Our Interview with Jason Zweig (26 October 2007)

It's been clear for a while, at least since the collapse of Lehman Brothers last fall, that what we have to fear above all is hope itself. Attempts to trust that the worst is over and to stop frightening ourselves seem doomed to propel us into yet worse disappointment. We are not only unhappy, but – believing calm and happiness to be the norm – unhappy that we're unhappy.

It's time to recognize how odd and counterproductive is the optimism on which we have grown up. For the last 200 years, despite occasional shocks, the Western world has been dominated by a belief in progress, based on its extraordinary scientific and entrepreneurial achievements. But from a broader historical perspective, this optimism is an anomaly. Humans have spent the greater part of their existence drawing a curious comfort from expecting the worst. In the West, lessons in pessimism derive from two sources: Roman Stoic philosophy and Christianity. It may be time to remind ourselves of a few of their lessons – not to add to our misery but to alleviate our injured surprise and sorrow.

Alain de Botton
The Consolations of Pessimism
City Journal (Spring 2009)

A Negative Assessment of Confidence, Optimism and Positive Thinking (Part I)

Does one's state of mind affect one's physical and mental health? Holy Scripture is clear: "A [joyous] heart is good medicine," says Proverbs (17:22) in the Complete Jewish Bible, "but low spirits sap one's strength." Psychologists concur: contentment, gratitude and joy can help to improve health and lengthen life. People who count their blessings tend, among other things, to lead rich social lives. A good quantity, quality and variety of friendships and social activities ("support networks"), in turn, help to combat and mitigate the depression which can also trigger, exacerbate and perhaps even cause many physical ailments. On many levels, individual and social, it's better to be joyful and grateful rather than disgruntled and resentful.

Consider now a more specific question: what say psychologists and other social scientists about confidence? "Optimism" refers to an individual's propensity to affirm statements such as "things are good right now" and "things are going to get even better." Psychologists' research, considered as a whole, draws two linked conclusions. First, optimists' lifestyles are to some extent healthier than pessimists'; second, optimists are somewhat less susceptible to disease. Compared to pessimists, upbeat people tend to smoke less, exercise more, eat healthier foods (and avoid unwholesome ones) and imbibe moderate rather than excessive amounts of alcohol (including more wine and less spirits). A person's affirmative outlook seems to explain ca. 5-10% of the somewhat reduced likelihood that he will succumb to certain afflictions – including cardiovascular disease and stroke. Cheerfulness also seems to promote psychological well-being. "Put simply, optimists emerge from difficult circumstances with less distress than do pessimists … Optimists seem intent on facing problems head-on, taking active and constructive steps to solve their problems; pessimists are more likely to abandon their effort to attain their goals."[1]

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[1] See, for example, M. Scheier, C. Carver and M. Bridges, "Optimism, Pessimism, and Psychological Well-Being," in *Optimism & Pessimism: Implications for Theory, Research, and Practice*, Ed. E. Chang (Washington, DC: American Psychological Association, 2001, pp. 189-216) and C. Peterson and L. Bossio, "Optimism and Physical Wellbeing," in *Optimism & Pessimism: Implications for Theory,*

It's important that we specify these findings' limitations. Chronic melancholy may make people physically sick; clearly, however, a patient's positive outlook cannot cure his cancer. The typical study establishes correlations which might be suggestive but are hardly conclusive. In particular, no study has conducted a proper experiment; accordingly, none has specified strong causes and established compelling effects.[2] Not only have empirical researchers been unable to establish causality: theoretical research has not ascertained its direction. Optimism, in other words, might make us healthier; just as plausibly, good health may beget confidence.

Similarly, we mustn't invalidly generalise these studies' implications. Although much research concurs that certain diseases are less likely to afflict optimists, it certainly doesn't demonstrate that psychiatric, pharmaceutical or other mood-altering intervention can mitigate the likelihood of development, course or severity of disease. Moreover, *a sunny outlook, if that's your disposition, may help to maintain your health. It probably won't, however, make you wealthier or wiser. Quite the contrary: if anything, because it typically renders us less prudent, confidence usually makes us poorer.* This two-part Letter derives and describes this fundamental truth. It also explores its implications: most importantly, investors worthy of the name mind the downside and let the upside mind itself. Astute investors thereby

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Research, and Practice, ed. E. Chang (Washington, DC: American Psychological Association, 2001, pp. 127-145).

2 A "longitudinal" study of nuns conducted in 2001, which Martin Seligman (*Authentic Happiness*, The Free Press, 2002 p. 3) has labelled "the most remarkable study of happiness and longevity ever done," purports to show that happier nuns live longer. During the early 1930s, when the nuns in question were aged 20-25, they wrote brief sketches about their lives and commitment to their calling. As judged by researchers, nuns whose missives "registered high in positive emotional content" outlived those whose statements were judged less positive.

This study's glaring weakness is clear: leaving aside the reliability of researchers' assessments, not everybody can or will express their emotions vividly in writing. Hence there's quite an inference between the lip of positive emotions and the cup of happiness. One might just as well conclude that good writing is the key to long life. Indeed, a study conducted in 1995 by one of the subsequent authors of the "nun's study" suggests just that: young nuns who wrote "complex sentences" with high "idea density" were less likely in their dotage to succumb to Alzheimer's. See also Deborah Danner *et al*., "Findings from the Nun Study, University of Kentucky," *Journal of Personality and Social Psychology*, vol. 80, 2001, pp. 804-813 and Gina Kolata, "Research Links Writing Style to the Risk of Alzheimer's," *The New York Times*, 21 February 1996.

disavow the modern plague of "positive thinking." Acting as if your personal and the general economic and financial glasses are less than half-full is an essential pillar of the mindset required to invest successfully. Paradoxically, it also helps to promote peace of mind (which, as we'll see, is not the same thing as happiness).

Much of the time, most people misperceive the past and present. Further, virtually everybody greatly overestimates his ability even dimly to foresee the future. Specifically, most assessments of the present and future are, with the benefit of hindsight, too sanguine. This propensity to err on the sunny side applies as much to professionals as to amateurs; it also holds across most disciplines (accountancy, geology and meteorology seem to be exceptions). Overconfidence is particularly rife when risk or uncertainty prevails, or when one can easily compare the results of one's to others' decisions. Business executives and participants in financial markets (particularly traders and funds managers) are especially prone to over-optimism. As a result, and often abetted by bullish "experts," people's views about present and future economic conditions, overall markets' and particular companies' prospects, etc., when compared to subsequent reality, are typically overly sanguine. So too are the self-assessments of investors – institutional as well as "Mums and Dads" – of their skills, insights and past, present and likely future results.[3]

If its consequences weren't so often tragic, this situation would be comical: "analysts" and "strategists," who routinely overestimate their abilities, usually issue overly optimistic assessments (based partly upon CEOs' and bureaucrats'

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[3] J. Edward Russo and Paul J.H. Shoemaker, "Managing Overconfidence," *Sloan Review*, vol. 33, no. 2, Winter 1992, pp. 7-17. The calculation of risk is the ability in a given situation, usually through the use of particular assumptions (namely the use of specific probability distributions and associated mathematical methods), to specify the range of possible events and to quantify the likelihood that a particular subset of events ("risks") occurs. Uncertainty, on the other hand, refers to the inability (usually as a consequence of the absence of a tractable or applicable probability distribution or data) to calculate risks, costs or benefits. The difference between risk and uncertainty may indeed – as is often asserted – be a matter of knowledge. I suspect, based upon the reasoning and results in this chapter, that this difference is more apparent than real: quite often, we merely have confidence in and possess optimism about our methods and data. Clearly, and as mankind's record of grievous error testifies, confidence is hardly the same thing as knowledge. See also Frank Knight, *Risk, Uncertainty and Profit* (Houghton Mifflin Co., 1921).

positive biases) about companies and the economy as a whole.[4] Moreover, "investors" who're overconfident about their skills and overly optimistic about the future gravitate towards companies run by overconfident (about their skills) and overly optimistic (about the future) executives. What could possibly go wrong? Terrence Odean, a professor at the University of California-Berkeley, clearly sees what apparently blinds optimists: "psychologists have found that people who are mildly depressed tend to have the most realistic outlook." Steven Thorley, a professor of finance at Brigham Young University, elaborated: "in the financial world, [optimism and confidence] just don't work. You're not interacting with people. You're interacting with prices. They don't care how you feel that day. In general, overconfidence is a [liability]." "Investors," concluded Meir Statman, a finance professor at Santa Clara University in California,

> think they know more than they really do, and they buy and sell stocks on this "knowledge." … Trading volume is higher after a period of high returns. That is consistent with the notion that people confuse brains with a bull market. They think that, because their portfolio is fatter, they are smarter (these three academics' quotes appeared in "In the Field of Investing, Confidence Can Hurt You," *The Wall Street Journal*, 22 September 1998).

Beware: Confident, Optimistic and Positive People Make Poor Investors

Net of brokerage and other costs, speculators who mistakenly think they're investors earn poor long-run returns. This generalisation has two corollaries: people who are overoptimistic about the future usually make mediocre investors, and people who're overconfident about their abilities are typically poor investors. *In other words, the more upbeat are your temperament and expectations, the worse the results that your activities in financial markets will typically generate.* The trouble with self-assured people in general and with buoyant speculators in particular is that they overestimate their abilities. They also believe that they (compared to the allegedly less intelligent and talented hoi-polloi) face relatively

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4 This literature is very large. A good summary and overview, whose results remain valid, is George Bulkley and Richard D. F. Harris, "Irrational Analysts' Expectations as a Cause of Excess Stock Price Volatility," *Economic Journal*, vol. 107 (1997), pp. 359-371.

few risks and will reap disproportionately great rewards. Their confidence – and consequent misperception – is particularly marked if their initial ventures (be it the operation of a lemonade stand at five years of age, dating the local beauty queen at 16, day-trading at 25, etc.) are enjoyable and successful. The glow of initial and apparent success renders people more upbeat – and, especially during bull markets, likely to "invest" (that is, confidently speculate that the prices of stocks, bonds and real estate will rise further), use borrowed money and think positively about these operations' eventual results.

Success typically boosts confidence. But do high self-regard and brashness of produce success? If by "success" you mean "varied and rewarding personal relationships," then the answer is "maybe;" but if "success" means "prudent and consistently profitable investment operations," then the answer is "almost certainly not." Confident, optimistic and positive people simply don't take better decisions than unsure, self-doubting, sceptical, disbelieving and distrustful ones; and the brash are not more astute than the merely self-assured. Hence most brash and many confident people tend to be speculators who mistakenly believe that they're investors;[5] and speculators, in turn, tend strongly over time to lose money. The extent to which the crowd overtrades relates directly to its overconfidence: the more frequently they trade, the more money they typically lose.

Ben Graham grasped this fundamental point more than three-quarters of a century ago. "The vast majority of stock traders," he wrote in Chapter 52 of

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[5] On p. 188 of *The Intelligent Investor*, Graham wrote: "it is easy for us to tell you not to speculate; the hard thing will be for you to follow this advice." On p. 21 he added: "… there are many ways in which speculation may be unintelligent. Of these the foremost is … speculating when you think you are investing." Also (p. 188): "if you want to speculate do so with your eyes open, knowing that you will probably lose money in the end; be sure to limit the amount at risk and to separate it completely from your investment program." And finally (p. 205): "the most realistic distinction between the investor and the speculator is found in their attitude toward stock-market movements. The speculator's primary interest lies in anticipating and profiting from market fluctuations. The investor's primary interest lies in acquiring and holding suitable securities at suitable prices." For an extended discussion of the fundamental difference between investment and speculation (and between investors and speculators), see Chris Leithner, *The Intelligent Australian Investor* (John Wiley & Sons, 2005), Chap. 2.

Security Analysis (1934), "are inevitably doomed to failure." In *The Intelligent Investor* (1949), he elaborated:

> The one principle that applies to nearly all these so-called "technical approaches" is that one should buy because a stock or the market has gone up and one should sell because it has declined. This is the exact opposite of sound business sense everywhere else, and it is most unlikely that it can lead to lasting success in Wall Street. In our own … experience and observation, extending over 50 years, we have not known a single person who has consistently or lastingly made money by "following the market." We do not hesitate to declare that this approach is as fallacious as it is popular.

More recently, academic researchers have extended and elaborated Graham's insight. Brad Barber and Terrance Odean analysed the investment portfolios of more than 60,000 households that used a particular discount-brokerage firm during the six years to 31 December 1996.[6] Somewhat surprisingly, in light of subsequent research (including their own; see below), they found that these households' "pre-cost results" broadly matched overall market averages, which during these years rose unusually strongly and almost without interruption. Unfortunately, these returns didn't look nearly so flash after Barber and Odean recalculated them net of the costs of investing such as brokerage commissions and the so-called bid-ask spread (i.e., the gap between a stock's offered prices for sale and purchase). The more investors traded – and thanks largely to the much higher costs of trading that they incurred – the worse their results became.

Other studies have concluded that "investors" consistently err in additional ways.[7] They react too much to short-term "performance" (be it of market indices

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6 Barber, B.M. and T. Odean, "Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors," *Journal of Finance*, vol. 55, 2000, pp.773-806, and also "Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment," *Quarterly Journal of Economics*, vol. 116, 2001, pp. 261-292.

7 For a summary, see Gary Belsky and Thomas Gilovich, *Why Smart People Make Big Money Mistakes and How to Correct Them: Lessons from the Life-Changing Science of Behavioural Economics* (Simon &

like the S&P 500, particular managed funds or the stocks of particular companies); they overestimate the chances of success both of allegedly "sure things" (like initial public offerings) and of "long-shots" (e.g., biotech, internet and other "technology" stocks); they purport to see patterns in prices, markets and returns where in fact mere random variation exists; and they sell "winners" too quickly and retain "losers" too long.[8] Net of these various mistakes, all investors – considered as a group – necessarily earn pre-cost returns equal to the market averages. But the more self-confident the "investor," the more frequently he trades; those who trade most frequently err most egregiously; and these mistakes severely crimp returns. As Odean told *The Wall Street Journal* (22 September 1998): "the more you trade, the [poorer the] decisions you potentially make. And then you pay for that privilege, through trading costs."

"Investors" Populate Lake Wobegon

In May 2012, Fidelity Investments released the results of its annual poll of "active investors" (which is a euphemism for "high-frequency traders," i.e., speculators who trade at least 36 times per year). In this poll, 91% of respondents expected to "outperform" – that is, they reckoned that the results of their investment operations would equal or exceed the returns of major stock market indices – during the next twelve months. More specifically, 62% believed that they would beat the S&P 500 and 29% reckoned that they would match it. Just 9% anticipated that they'd "underperform."[9] Moreover, two-thirds of the poll's respondents claimed that their portfolio's "performance" matched or exceeded the S&P 500 during the year to April 2011, and 80% made the same claim about the twelve

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Schuster, 2010). See also Thomas Gilovich, *How We Know What Isn't So: The Fallibility of Human Reason in Everyday Life* (Free Press, 1993).

[8] Tellingly, however, these studies don't provide criteria which distinguish winners from losers; too often, their "advice" echoes that of the American humourist Will Rogers: "the secret to the stock market is to buy a stock that's going to go up in price. If it doesn't go up, don't buy it."

[9] Fidelity hired a research firm to poll attendees and web-viewers at the Fidelity Traders Summit in Fort Lauderdale, Florida, in mid-April 2012. "Active investors," who reported that they traded at least 36 times or more per year, comprised the majority of the poll's respondents. An average of 1.5 trades per month is hardly hyperactive by traders' frenetic standards, but it's much greater than your average buy-and-hold investor (for details, see Chuck Jaffe, "Traders: Not as Good as They Think" (*MSNMoney*, 22 May 2012).

months to April 2010. Perhaps these speculators really are exceptionally able and successful. It's far more likely, however, that this poll provides yet another example of the pervasive overconfidence of "investors" – that is, of speculators who mistakenly flatter themselves that they're investors.

The results of Fidelity's surveys closely resemble those of others that ask respondents to assess their ability with respect to a particular skill or activity. Such surveys have indicated, for example, that the vast majority of people consider that they're above-average (with respect to safety, compliance with road rules, etc.) drivers.[10] In other words, most people believe that *other people* drive poorly and cause crashes, invest recklessly and lose money, etc. In reality, of course, it's mathematically impossible that all drivers – and all market participants – can exceed the average: by logical necessity, some must be below average, others roughly average and still others above average. And given some standard assumptions, which observation confirms, a relatively small number are below average, many are roughly average (the average may be mediocre by some absolute or external standard) and a few above average. *The blunt truth is that, by definition and observation, and whether it's on the roads or in financial markets and elsewhere, only a minority can "outperform" – and even fewer can do so consistently.*

Alas, people seldom assess their capabilities and results dispassionately. Hence the so-called "Lake Wobegon Effect:" this fictional location (which entered the popular lexicon through the long running American radio serial *A Prairie Home Companion*), where "all the women are strong, all the men are good looking, and all the children are above average," has lent its name to the very real and pervasive human tendency to overestimate one's achievements and capabilities. This tendency, whereby nearly all members of a group claim – improbably or even impossibly – that their skills or results are above average, has been observed not just among drivers and investors, but also CEOs, hedge fund managers and stock market analysts, entertainers ranging from radio show hosts

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10 See in particular Ole Svenson, "We Are All Less Risky and More Skilful Than our Fellow Drivers," *Acta Psychologia*, vol. 47 (1981): pp. 143-8. See also Belsky and Gilovich, *Why Smart People Make Big Money Mistakes*.

to late-night comedians, and students and their parents. Thomas Gilovich concluded:

> most of us have moderate to high self-esteem. Like the mythical residents of Garrison Keillor's Lake Wobegon, we need to believe that we are above average. For example, in a survey of a million high school students, only 2% stated that they were below average in their leadership ability (*How We Know What Isn't So*, p. 150).

Two researchers at the Brookings Institution, Carol Graham and Souma Chattopadhyay, observed in *Gross National Happiness and the Economy* in 2006:

> [The] strong belief in opportunity and upward mobility is the explanation that is often given for Americans' high tolerance for inequality. The majority of Americans surveyed believe that they will be above mean income in the future (even though that is a mathematical impossibility).

A poll of 750 investors compiled late in 1997, reported Jason Zweig on p. 255 of the 2006 edition of *The Intelligent Investor*, found that 74% of respondents believed that their managed funds "would consistently beat the S&P 500 each year – even though most funds fail to beat the S&P 500 in the long run and many fail to beat it in *any* year." Similarly, a random sample of more than 1,000 likely American voters compiled for Time/CNN (Poll #15, 25-26 October 2000, Question 29) asked respondents to compare their income to their estimate of other Americans' incomes. Almost one-fifth (19%) placed themselves among that country's top 1% of income-earners.

Most people also assert that they're above-average (in terms of the number of hours worked) employees. Yet how employees think they spend their time varies remarkably from reality. Specifically, people wildly overestimate the amount of time they devote to work (including housework) and underestimate the time devoted to sleep. As a general rule, the higher the number of hours per week that a person alleges he works, the more likely and the greater the extent to which he's overestimating. A study published in the June 2011 issue of the *Monthly Labor Review* of the U.S. Government's Bureau of Labor Statistics ("The

Overestimated Workweek Revisited" by John Robinson *et al.)* compared people's estimated work-weeks and time diaries. People who claim that their usual work-week is longer than 75 hours actually work, on average, ca. 50 hours.

In an address to Foundation Financial Officers in 1998, Berkshire Hathaway's vice-Chairman, Charlie Munger alluded to the Lake Wobegon Effect:

> … in self-appraisals of prospects and talents it is the norm … for people to be ridiculously over-optimistic. For instance, a survey in Sweden showed that 90% of automobile drivers considered themselves above average. And people who are successfully selling something, as investment counselors do, make Swedish drivers sound like depressives. Virtually every investment expert's public assessment is that he is above average, no matter what is the evidence to the contrary. … Smart, hard-working people aren't exempted from professional disasters from overconfidence. Often, they just go aground in the more difficult voyages they choose …

"We shouldn't be surprised by the results" of Fidelity's survey, said Terence Odean. "You are talking about active, engaged people who wouldn't be … trading 36 or more times a year if they didn't think they were above-average investors. Even if they are not better than average, they pretty much have to believe they are just in order to do what they are doing, to be active investors." Given some reasonable assumptions and the laws of probability, the performance of a significant percentage of these "investors" will be just fine over short periods such as one year. A lucky few, indeed, will "outperform." Similarly – that is, by pure chance – on average one in 8 people (ca. 13%) will correctly "predict" each of three flips of a coin. Critically, however, over the longer haul the evidence is compelling: "investors" perform very poorly. According to Odean and Barber (The Behavior of Individual Investors, September 2011),

> The majority of the empirical evidence indicates that individual investors, in aggregate, earn poor long-run returns and would be better off had they invested in a low-cost index fund. This evidence of poor performance is particularly compelling when we include transaction costs (e.g., commissions, bid-ask spreads, market impact, and

> transaction taxes). While transaction costs are an important component of the shortfall, a second component is the poor security selection ability of individual investors … These observations lead one to wonder why investors trade so much and to their detriment.

Even if he sticks to index funds, the man in the street tends to buy and sell at precisely the wrong time. That is, first he buys high and then sells low. According to John ("Jack") Bogle, from 1984 to 2002 the average mutual fund returned an average of 9.3% per year. During these years, the S&P 500 returned 12.2% a year, but the average fund investor earned just 2.6% a year – and Bogle suspects that the latter figure actually overstates the average long-term return.[11] *If he's correct, then in "real" terms (that is, net of the increase of the Consumer Price Index) the average "investor" loses money.* Mum's and Dad's poor results stem largely from their (more likely his) ill-timed decisions to buy and sell units of a managed fund, as well as the tendency to select a fund on the basis of its short-term "performance." Typically, the "investor" buys at times when returns have been unusually – and thus unsustainably – high. Subsequently, performance sags – and once it does, he tends to sell. Hence this "investor" tends to buy high and sell low, which is hardly a sound basis for success.

During the 1990s, when stock markets rose seemingly relentlessly, Mums and Dads were slow to join the party. They did so – in a big way – towards the top of the bubble in the late 1990s. In and after 2000, when markets sagged, they suffered. What did they learn from this painful experience? For a time, and like Mark Twain's cat, they no longer sat on hot stoves – and for good measure refused to sit on cold stoves, too. They were cautious until 2007, but then became bullish in 2007-2008 – and lost grievously in 2008-2009. For a few years thereafter, they foreswore stocks. But now (mid-2013), it seems, they've once again decided that the future is bright (or at least not grim), stocks are cheap (or at least not

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[11] See Statement of John C. Bogle to the United States Senate Governmental Affairs Subcommittee (3 November 2003). Studies conducted Dalbar, Inc. regularly show that, due to a combination of high fund fees and terrible investment decisions, mutual fund investors massively underperform the market. The gap between market returns and investor returns varies over time, but the former routinely exceeds the latter. In some years, investors only made one-fifth of what they would have received in an index-tracking fund.

dear) and that they (or their advisers and funds managers) know what they're doing. According to Brett Arends ("Will Mom and Pop Investors Blow It Again? The Average Investor Is Terrible at Timing the Market," *WSJ MarketWatch*, 13 August 2013),

> Data shows [sic] that the ordinary retail public – Mom and Pop – are back on Wall Street, and how! According to the Investment Company Institute, the Great American Public has poured $92 billion into the stock market via stock mutual funds since the start of the year. To put that in context, in the first seven months of last year – when the market was much lower – they withdrew $180 billion. The last time the investing public jumped into the Wall Street pool with both feet like this was in 2007. And they are investing even more this time around. In the first seven months of 2007 they invested $85 billion into stock funds.
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> According to Dalbar, a Boston-based consultancy that tracks these things, Mom and Pop are just terrible market timers. Year after year, they have a self-defeating tendency to buy when the market has already risen, and sell after it has fallen. They aren't always wrong, of course, but over time their record is a poor one. For example, over the 20 years through the end of 2012, Standard & Poor's 500-stock index produced an annual return of 8.21%. So if you'd invested $100,000 20 years ago and then gone away to a desert island, when you returned you'd find you'd get back your original $100,000 investment, plus a profit of $384,000.
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> However, over the same period, the average mutual-fund investor – Mom and Pop – didn't do nearly so well, precisely because they kept buying after stocks had risen and then selling again after they had fallen. Their average return over that period, says Dalbar, was only 4.25% a year. At the end of the period, they would have gotten back their original $100,000 investment plus a profit of just $130,000. In other words, they missed out on two-thirds of the profits.

> … I can't read the future, any more than anyone else can. But I know that Mom and Pop have a terrible track record. Over the years, you could have made a fortune just by buying stocks when Mom and Pop sold them and selling when they were buying. And they are buying, heavily, right now.

It's important to emphasise that it's not just individual and amateur "investors" who typically perform poorly. On 15 June 2007, in "John Bogle Responds to 'Ask Jack' Questions," the founder and retired CEO of The Vanguard Group wrote:

> The percentage of [professional investment] managers outperformed by the broad market index is, well, time-dependent. On a given day, it's likely about 55%; over a year maybe 60-65%, over a decade perhaps 75-80%, and over 50 years … well, there's no data (yet!) on that! But the probability statistics suggest that over a 50-year period, some 98% of managers will lose to the market index.

Jack Meyer, President and CEO of the Harvard Management Company from 1990 to 2005, notes that

> Most people think they can find managers who can outperform, but most people are wrong. I will say that 85% to 90% of managers fail to match their benchmarks [such as the S&P 500 index, All Ordinaries index, etc.]. Because managers have fees and incur transaction costs, you know that in the aggregate they are deleting value.

In *The Little Book of Common Sense Investing: The Only Way to Guarantee Your Fair Share of Stock Market Returns* (John Wiley & Sons, 2007), Bogle noted

> of the 355 equity funds in 1970, fully 233 of those funds – almost two thirds – have gone out of business. Only 24 outpaced the market by more than one percentage point a year – one out of every 14. Let's face it: These are terrible odds!

The following chart from Standard & Poor's (*S&P Indices versus Active Funds (SPIVA®) Scorecard*) shows the percentage of investment managers in various categories who "underperformed" the relevant index over one-, three- and five-year periods to 31 December 2012. The Five-Year column, which allows a sufficient amount of time to establish a trend, is the most relevant. With only one exception (namely Large Cap Value Funds), and only by a small margin, a large majority of professional investment managers did *not* beat the relevant index.

Report 1: Percentage of U.S. Equity Funds Outperformed by Benchmarks

Fund Category	Comparison Index	One Year (%)	Three Years (%)	Five Years (%)
All Domestic Equity Funds	S&P Composite 1500	66.08	74.35	68.56
All Large-Cap Funds	S&P 500	63.25	86.49	75.37
All Mid-Cap Funds	S&P MidCap 400	80.45	90.22	90.03
All Small-Cap Funds	S&P SmallCap 600	66.5	83.05	82.76
All Multi-Cap Funds	S&P Composite 1500	68.15	83.79	79.16
Large-Cap Growth Funds	S&P 500 Growth	46.08	90	89.67
Large-Cap Core Funds	S&P 500	66.29	89.82	78.10
Large-Cap Value Funds	S&P 500 Value	85.06	80.78	49.78
Mid-Cap Growth Funds	S&P MidCap 400 Growth	87.22	94.2	96.00
Mid-Cap Core Funds	S&P MidCap 400	79.66	90.97	89.81
Mid-Cap Value Funds	S&P MidCap 400 Value	76.24	78.57	74.49
Small-Cap Growth Funds	S&P SmallCap 600 Growth	63.72	87.65	92.23
Small-Cap Core Funds	S&P SmallCap 600	68.44	84.73	79.65
Small-Cap Value Funds	S&PSmallCap 600 Value	61.83	77.6	68.93
Multi-Cap Growth Funds	S&P Composite 1500 Growth	52.21	81.78	91.46
Multi-Cap Core Funds	S&P Composite 1500	72.68	85.98	78.67
Multi-Cap Value Funds	S&P Composite 1500 Value	73.76	85.62	62.18
Real Estate Funds	S&P BMI United States REIT	47.1	85.71	77.88

Source: S&P Dow Jones Indices, CRSP. For periods ended Dec. 31, 2012. Outperformance is based upon equal weighted fund counts. All index returns used are total returns. Charts are provided for illustrative purposes. Past performance is not a guarantee of future results.

The report's Executive Summary encapsulates its results:

> The year 2012 marked the return of the double digit gains across all the domestic and global equity benchmark indices. The gains passive indices made did not, however, translate into active management, as most active managers in all categories except large-cap growth and real estate funds underperformed their respective benchmarks in 2012. Performance lagged behind the benchmark indices for 63.25% of large-cap funds, 80.45% of mid-cap funds and 66.5% of small cap funds.
>
> The performance figures are equally unfavorable for active funds when viewed over three- and five- year horizons. Managers across all domestic equity categories lagged behind the benchmarks over the three-year horizon. The five-year horizon yielded similar results, with

> large-cap value emerging as the only category that maintained performance parity relative to its benchmark.

In plain English, in only one of the 18 categories did even half of professional funds managers in the U.S. achieve their benchmark: typically, only 10% to 30% did so. (Morningstar has conducted similar studies in Australia, and has produced roughly the same results.) According to *The Motley Fool* (The Experts' Secrets, undated),

> The statistical evidence proving [sic] that stock index funds outperform between 80% and 90% of actively managed equity funds is so overwhelming that it takes enormously expensive advertising campaigns to obscure the truth from investors. In fact, one of the reasons that actively managed equity funds underperform stock index funds is because they are spending so much money to advertise -- money that otherwise would be invested on behalf of the mutual fund shareholders.[12]

Why Are "Investors" Routinely Overconfident?

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12 For many investors and all "investors," index funds make sense. Perhaps most notably, Warren Buffett has affirmed the wisdom of owning index funds. In his letter to Berkshire Hathaway's shareholders (1996), he stated: "most investors, both institutional and individual, will find that the best way to own common stocks (shares) is through an index fund that charges minimal fees. Those following this path are sure to beat the net results (after fees and expenses) of the great majority of investment professionals." On the other hand, some push this logic to an unreasonable – and false – extreme. They don't just state (rightly) that over time it's very difficult to generate investment results that exceed the returns of market indexes like the S&P 500: they go further and imply or assert outright it's effectively impossible to do so. In other words, they proceed from a sound premise (namely that financial markets are roughly "efficient" over long periods of time) to an absurd conclusion (namely that they are perfectly "efficient" at all times).

In his 1993 letter to shareholders, Buffett elaborated this point: "for many long-term investors, … index funds can be a sensible approach. Yet, that reality doesn't logically lead to the conclusion no investors would be better off buying individual equities. It's knowing one's own limits and abilities." It's not likely, over the long haul, that many investors will "outperform" low-cost index funds. Yet there's a big difference between "not likely" and "not possible."

According to Jessica Kennedy, Cameron Anderson and Don Moore,[13] overconfidence provides social benefits such as higher status and influence within groups. Indeed, Kennedy *et al.* found that overconfident people's higher social status doesn't diminish even when the tenuous basis of their brashness becomes apparent to other members of the group. For some reason, certain deluded people attract the admiration of relatively level-headed people. Most people want intangible status and influence as much as tangible wealth. Indeed, these things are often not easy to differentiate; accordingly, in some respects status effectively *is* wealth.

Over-optimism may also be a consequence of happiness – which, broadly speaking, refers to one's self-reported extent of satisfaction with the circumstances of one's life. In this context, it's vital to distinguish the secular notion of *happiness* from the biblical conception (see this chapter's first paragraph) and the stoic conception (see Letter 192-193 and 194-195) of *joy*. Happiness is an emotion which usually stems directly from one's current circumstances. When these conditions are good, things are going my way, etc., I feel happy. But when I don't get what I want, I become unhappy. "What we call happiness in the strictest sense," said Sigmund Freud in *Civilization and Its Discontents* (1930), "comes from the (preferably sudden) satisfaction of needs which have been dammed up to a high degree, and it is from its nature only possible as an episodic phenomenon." Happiness is subjective: what makes me happy may not make you happy, and vice versa. Further, the effect of a given event upon your happiness – and indeed, unhappiness – tends to be temporary; and material or social occurrences typically trigger and extinguish it. Particularly noteworthy for our purposes, the sudden receipt of (say) a large amount of money does not permanently increase one's degree of happiness: the happiness of winners of lotteries, for example, typically returns within a year or so to its former level.

Joy, on the other hand, is not an emotion. In both its Biblical and Stoic senses, it does not presuppose the occurrence of some ephemeral event: something much

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13 Social Reactions to Overconfidence: Do the Costs of Overconfidence Outweigh the Benefits? (Working Paper Series, Institute for Research on Labor and Employment, University of California Berkeley, 30 March 2011).

bigger than our current and future material circumstances underlies it. A happy person looks at himself and celebrates his good fortune; a joyful person looks above and thanks his Creator and Saviour for what He has done for us. "One feels inclined to say," said Freud, "that the intention that man should be happy is not included in the plan of Creation."[14] In the King James translation of Holy Scripture, "joy" appears 158 times and "rejoice" 198 times – much more frequently than "happy" and "happiness" (approximately 30 times). Spiritually, at least, joy is much more significant than happiness. Perhaps that's because it's entirely possible, in the midst of life's vicissitudes, simultaneously to experience deep unhappiness and profound joy. How happy, after all, was Christ when he prayed "thy will be done" in the Garden of Gethsemane? When Peter abandoned and repeatedly denied him? When the skin was ripped off his back and nails driven into his hands and feet?

Kaplanski *et al.* have investigated the relationship between happiness and investing.[15] They found

> The happier the subject the more optimistic she is with regard to the stock market. Specifically, we find that the better the general mood of the individual, the better the perceived weather, and … the higher the predicted expected return in the U.S. market as well as in the domestic Dutch stock market.

Certain seasonal effects (for example, the "January effect" in the U.S.) clearly influence market participants.[16] Kennedy *et al.* and Kaplanski *et al.* subtly add an

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14 Joy is a gift of the Holy Spirit which fills the chasm between Him and us. In St Paul's letter to the Galatians we read (5:22): "But the fruit of the Spirit is love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self-control." Note the omission of happiness.

15 Guy Kaplanski, Haim Levy, Chris Veld and Yulia V. Veld-Merkoulova, Do Happy People Make Optimistic Investors? (February 2013).

16 The "January effect" is an anomaly in American financial markets whereby the prices of stocks increase during January (particularly during its first half). This creates an opportunity to arbitrage, i.e., to buy stocks at relatively low prices before January and sell them at higher prices from February. The most common explanation is that investors sell stocks for tax reasons at year end; another is the payment of year-end bonuses in January: some bonus money is used to purchase

interesting twist: some of these effects seem to be related to optimism and other emotional cues associated with happiness. The idea that ebullient emotions underlie (or at least magnify) market booms has a long but rather anecdotal pedigree. In 2012, Eduardo Andrade *et al.* investigated it systematically.[17] Andrade and his colleagues hypothesised that positive emotions underlie the propensity to buy stocks and negative emotions underlie the desire to dump them. In an experiment, they manipulated – specifically, buoyed – subjects' mood. Did Andrade *et al.* thereby induce these subjects to overtrade? Yes, and more besides:

> We document, in an experimental setting, that [the] magnitude and amplitude of bubbles is greater when prior to trading traders experience high intensity, positive emotions than when they experience low intensity, neutral emotions, or high intensity, negative emotions. Thus rapidly rising prices may trigger the very emotions that lead to larger asset pricing bubbles.

Confidence, optimism and positive thinking induce "investors" to buy stocks; their demand tends to raise stocks' prices; and rising prices generate even more positive emotions – which induces more buying at ever higher prices, and on and on it goes. In short, happy people are confident about their judgments and optimistic about the present and future; as a result, they're more likely to trade. Successful trades increase traders' happiness; it also reinforces their confidence about their judgments and their optimism about the future. Add to this volatile mix human beings' apparent desire to congregate with and confer status upon people who are habitually overconfident, as well as the instinct and overt desire of many people to run in herds, and it's easy to envisage a situation of "mass delusional positive feedback" – that is, a stock market "bubble."

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stocks, which increases their prices. For details, see Donald Keim, "Size-Related Anomalies and Stock Return Seasonality: Further Empirical Evidence," *Journal of Financial Economics*, vol. 12 (1983), pp. 13-32. According to its critics, seasonal anomalies such as the January effect are real but minor and fleeting; accordingly, do not present to investors reliable opportunities to arbitrage profitably. See Burton Malkiel, "The Efficient Market Hypothesis and Its Critics," *The Journal of Economic Perspectives*, vol. 17, 2003, pp. 64-78.

17 Eduardo Andrade, Terrance Odean and Shengle Lin, Bubbling With Excitement: An Experiment (unpublished paper, June 2012).