

A Report on the March 2001 Investor Sentiment Survey

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Steep declines in the value of publicly traded stocks in the first quarter of 2001 left many market observers speculating whether investor sentiment had undergone a significant and negative change, and whether investors would subsequently flee stocks in favor of less volatile investment options. A survey study of investor expectations and confidence was conducted in late March 2001 to capture investor sentiment and compare it with similar measures taken in surveys conducted in 1998 during a period of rapid market incline. The surprising results are that there are only minor differences in investor sentiment in terms of: (a) confidence in the long and intermediate performance of the stock markets; (b) composition of stocks versus bonds in their portfolios; (c) the intention to buy on the dips; (d) the amount of risk investors plan to undertake. The high level of investor confidence observed in 2001 (in spite of a severe drop in market value) is potentially accounted for by psychological processes that influence investor judgment. These processes include reliance on image-driven affective evaluations of common stocks that contribute to excessive optimism.

The Institute of Psychology and Financial Markets, working in collaboration with Decision Research, undertook four surveys of investor sentiment in 1998 and a final one in late March 2001.¹ The first four surveys were completed in April, June, August, and November of 1998, a period of rapidly rising markets, while the final survey was conducted during the last week of March 2001 as stock prices tumbled to two-year lows. Figures 1 and 2 show the long-term appreciation of the S&P 500 and the Nasdaq respectively from the early 1970s through April of 2001 (neither figure is dividend-adjusted).

Turning first to Figure 1, from 1970 through mid-1982 the S&P 500 made virtually no gain. Indeed stocks peaked in 1968, and remained in a flat-to-down pattern through this period. In Figure 2, a fairly similar pattern is shown for the Nasdaq since it was first tracked in mid-1973. Up to the beginning of the Great Bull Market, which commenced in 1982, the Nasdaq

traded at well under 100. Prior to the start of the bull market, investor sentiment was very pessimistic. Only weeks before the bull market began, Business Week ran a now famous cover story asking “Are Stocks Dead?” since institutional investors as a group had been rapidly reducing the percentage of stock in their portfolios from 1974 through 1982.

This changed with the commencement of the powerful bull market in 1982. Returns on stocks improved dramatically from the 3.2% return for the S&P 500 from 1966 to 1981, to the 15% return from 1982 to 1999, while the Nasdaq’s return in the latter period was considerably higher. Rising stock prices resulted in more and more investors entering the marketplace. From 1995 through the summer of 2000, the S&P 500 rose about 233%. The Nasdaq, which by then was heavily weighted in technology stocks, exploded in mid-1996 increasing from 1000 to 5050 by early March of 2000. It is against this background of one of the most rapid rises in major market indices of the 20th Century that the 1998 surveys of investor sentiment were made. The late March 2001 survey on the other hand was conducted against a background of major indices such as the S&P 500 and The Dow Jones Industrial Average dropping sharply, and entering bear market territory at almost exactly the same time of the most recent survey. The Nasdaq declined 69% from March 2000 to the time of the survey (the sharpest drop of a major index in such a time period in well over 100 years).

With the enormous losses in stock value, roughly four to five trillion dollars by late March of 2001 (by comparison the loss from top to bottom in the 1987 crash was one trillion), many Wall Street authorities at this time believed that a major change in investment

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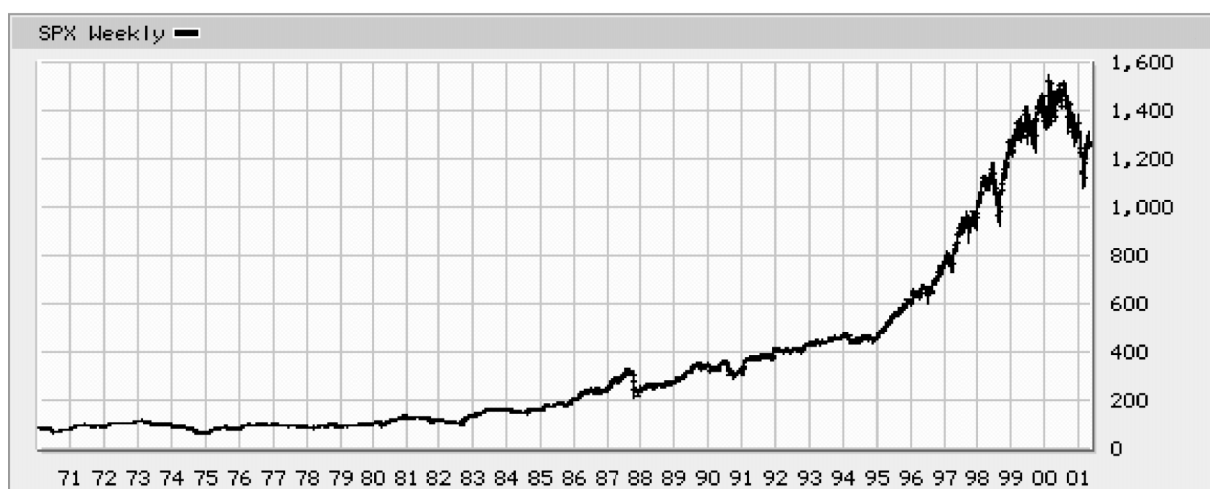
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FIGURE 1
S&P 500: January 1970–March 2001



sentiment had occurred. Some believed investors would likely reduce the stock portions of their portfolios. Further, they thought that investors considered the market far riskier than they had considered it to be 12 months earlier. Finally, they thought that people who had been highly successful “buying the dips” for over five years were now losing large amounts of capital following this strategy and were unlikely to continue it. Investment experts also stated a number of similar concerns. We conducted the 2001 survey against this background. To our surprise our results indicated some remarkably counter-intuitive findings.

Method

The Investor Surveys were conducted by telephone, by sampling from a source list of 220,000 American

families. The master list was created by a variety of methods, including names supplied by investment houses. The master was refined by the addition of information from public sources and from interviews. A subset of the master list was selected for this survey based on two sorting criteria. First, the household had to have an investment portfolio and second, those with portfolios were stratified by Census Bureau Region to produce a list with geographic proportions equal to the natural distribution of population in the United States. From this point subjects were selected for interview by random digit dialing.

Sample sizes for the 5 surveys ranged from 302–309. This produces a margin of error of $\pm 5.6\%$. The surveying was generally accomplished in a week or less to minimize the effects of changes in the market on perceptions. The March 2001 survey took place during the last week of the month. Prior surveys were conducted

FIGURE 2
NASDAQ From Inception: April 1973–March 2001



Table 1. *Expected Investor Returns for 1 Year*

Expected Annual Return 12 Months Out	% of Respondents for Each Survey					
	April 1998	June 1998	August 1998	Nov 98	Average 98	2001
No Return	0.4%	0.8%	1.2%	1.9%	1.1%	6.7%
5% or Less	3.3%	4.6%	6.1%	7.3%	5.3%	13.0%
5% to 10%	13.5%	19.8%	22.5%	13.8%	17.4%	29.8%
10% to 20%	60.7%	52.9%	51.0%	59.0%	55.9%	42.5%
20% or Greater	22.1%	21.9%	19.2%	18.0%	20.3%	8.0%

Note: Both surveys exclude individuals who did not answer or were unsure.

in April 1998, June 1998, August 1998, and November 1998.

Because efforts were made to complete the survey in as few days as possible rather than to achieve the highest possible response rate, the final response rates tended to be low for these five surveys. The March 2001 survey had a response rate of 26%. Response rates for the 1998 surveys were similar.

Results

Table 1 shows the returns expected by investors for the next 12 months in all 4 surveys in 1998, and the survey in March 2001. The returns were grouped into 5 categories: no return; 5% or less; 5% to 10%; 10% to 20%; and 20% or more. The first four columns in the table represent the percentage of investors expecting these returns in each survey in 1998. The fifth column presents the average percentage of investors expecting each return in 1998. The final column gives the same forecasts for the 2001 survey. As might be expected in the 1998 surveys, investors were optimistic about the outlook for the next 12 months. More than half expected returns of 12% or more, and 20% expected returns of 20% or higher, with 2% of investors expecting returns of 50% to 100%. The returns of 12% or more anticipated by over half of the respondents are above the average 10.5% return on equities calculated by Ibbotson & Sinquefeld (2001) for the 75 years to the end of 2000.² The 20% of respondents who expected 20% or higher returns are estimating returns 90%

above the long-term average, and 33% above the returns produced in the great bull market commencing in 1982. Investor expectations for the next 12 months had fallen by late March of 2001 with only 8% expecting a 20% or greater return compared to 20% in the 1998 surveys. All the same, more than half of investors expected a return of 10% or more. These investors thus expected to continue receiving the long-term rates of return for stocks even in a bear market in the S&P and the Dow, and a severe market decline for the Nasdaq. Also of interest was that not one individual sampled in 2001 expected negative returns, even in these harsh market conditions, which seems to be optimistic given the market's recent action.

In an attempt to gauge how strong the optimistic commitments actually were, the respondents in the last two 1998 surveys and the 2001 study were given current information on the market indices, and then asked again about their expectations during the next 12 months. The general trend of the market was strongly positive as Tables 1 and 2 indicate over the 1995–1998 period with the S&P 500 almost doubling and the Nasdaq, close to tripling (these two indices are by far the largest of the popular indices by market weighting). However, smaller stocks as measured by the Russell 2000 were down, and there was a rather sharp correction in the market beginning before the third survey (August 1998) and ending about six weeks prior to the fourth (November 1998). The effect was to lower the expectations of a portion of the 1998 investors. Whereas before receiving the market information 50% expected 12% or greater returns, and 20% anticipated re-

Table 2. *Expected Investor Returns for 10 Years*

Expected Annual Return 10 Years Out	% of Respondents for Each Survey					
	April 1998	June 1998	August 1998	Nov 1998	Average 98	2001
No Return	0.9%	0.0%	0.0%	0.4%	0.3%	1.3%
5% or Less	2.2%	1.3%	3.5%	5.1%	3.1%	3.4%
5% to 10%	9.4%	11.6%	10.7%	6.3%	9.4%	15.6%
10% to 20%	63.8%	56.2%	62.2%	60.6%	60.7%	54.0%
20% or Greater	23.7%	30.9%	23.6%	27.6%	26.5%	25.7%

Note: Both surveys exclude individuals who did not answer or were unsure.

turns above 20%, the 50% group now expected returns to drop slightly to 10% or more—although 10% still estimated returns of 20% or higher.

The information given to the respondents of the 2001 survey as noted above was very negative. Surprisingly perhaps, this data had very little effect on the 2001 respondents, with more than half still expecting an annual return of 8% or more, and 11% estimating a 12 month return of 20% or higher. The 11% expecting higher returns were actually an increase from 8% before the information on the sharp negative returns was received.

These findings can possibly be explained by several factors. In the first case significantly lower prices may have convinced more people that the market was undervalued. In fact, in 1998 the surveys showed that only 5% of the respondents believed that the market was undervalued. At the time of the 2001 survey, this number had tripled to 15%. A possible explanation for the increase in respondents believing the market was undervalued was the enormous media exposure given to the “tech-wreck” of the Internet and other high-flying Nasdaq stocks, as well as the sharp downturn into “bear market territory” of the S&P 500 and other major averages.

Table 2, set up identically to Table 1, measures investor sentiment over the next 10 years. This is an important survey item because it measures expectations over a much longer period. Most investors hold stocks for their retirement, their children’s education, and many other goals that are longer term in nature. A bear market is normally only a temporary phenomenon, and will most often have little effect on long-term returns. Thus the expected returns over the longer term much more clearly express investors’ confidence, or lack thereof, in equity markets as an important if not the prime vehicle for investing their savings.

Turning first to the 1998 surveys, investors had even higher expectations for average annual returns over the next 10 years than they had for the year ahead. In all four surveys more than half of investors expected long-term returns to average 14% or higher. Even more striking, 17.4% of investors in the 1998 surveys expected annual returns above 20% for the next ten years, with over 4% of investors expecting annual returns above 50%. The last number is roughly 5 times the return that stocks earned over the past seventy years. A \$100,000 initial investment using this projection would become almost 6 million at the end of the 10-year period. The enormous optimism which carried Internet and state-of-the-art tech stocks to valuation levels not previously seen in American market history, accompanied by major rises in price of the Nasdaq, the S&P 500 and the Dow, resulted in investors almost completely abandoning the base rate (the long-term return of stocks) and focusing almost entirely on the case rate (their recent performance). This base rate

neglect has been found often in psychological studies of judgment under uncertainty (see e.g., Kahneman & Tversky, 1972; Kahneman, Slovic, & Tversky, 1982), and has been attributed to a cognitive strategy called the representativeness heuristic. According to representativeness, forecasts are made to be similar to (or representative of) salient features of the observed data. The recent performance of stocks is much more salient than the historical performance, hence likely to become the representative standard by which future returns are forecasted.

The Affect Heuristic

Representativeness may explain why 10-year forecasts do not regress to the long-term base rate of 10%–11%. However, it cannot explain why the 10-year forecasts actually exceed the extremely favorable one-year returns that had been projected in 1998 and 2001.

We suggest that this great optimism towards long-term returns might be explained by another mental process that Slovic, Finucane, Peters, and MacGregor (in press) have labeled “the affect heuristic.” The basic thesis underlying the affect heuristic is that images, associated with positive and negative affective feelings, guide judgment and decision-making. Specifically, in the process of making a judgment or decision, people are assumed to consciously consult or unconsciously sense an “affect pool” containing all the positive and negative feelings associated with the representations (images) of the object being judged.

When a person forecasts rate of return on investments, the time frame is likely to affect the representational imagery associated with that investment. According to Trope and colleagues (e.g., Trope & Liberman, 2000; 2001), the greater the temporal distance, the more likely events are to be represented in terms of a few abstract or general features that convey the perceived essence of the event under consideration. Events nearer in time are more likely to be represented in terms of more concrete and specific details. Trope and Liberman (2001) offer a visual analogy: “From a distant perspective we see the forest, but from a proximal perspective, we see trees.” (p. 23).

In the case of investments, the optimism underlying the near-term (one-year) forecasts in 1998 may have been tempered by awareness of some of the specific uncertainties and problems for that period. The Russian default and the enormous indebtedness of Long Term Capital, which together threatened a financial debacle, presented a real threat of a worldwide financial crisis. In addition, many conservative investors believed that the Internet tech bubble might result in significant future market damage.

The imagery associated with the 10-year forecasts is unlikely to be burdened by these specific “local” de-

tails. Instead, global phenomena such as “baby boomers investing heavily for retirement,” or general feelings of optimism are likely to dominate the affect pool that is salient for the long-term projections. To the extent that these general representations are positive (obviously they do not have to be), they will produce more favorable forecasts than those made for the near term. Trope and colleagues have produced considerable experimental evidence documenting the differential nature of short-term and long-term representations, which they call “temporal construal.” In conjunction with the affect heuristic, temporal construal seems to offer a promising explanation for the anti-regressive tendencies observed in the long-term forecasts of the investors we surveyed in 1998.

A similar picture emerged from the survey in 2001. Given the enormous drop in the Nasdaq, accompanied by the move into bear market territory of the S&P 500 and the Dow Jones Industrial Average, one might have expected the forecasts for 10-year returns to be significantly lower in the March 2001 survey than in the 1998 surveys. Remarkably, they were not. Respondents were only slightly less optimistic about the 10-year prospects for the market than investors in 1998, with more than 50% expecting annual returns to be 12% or higher, and 13% expecting them to be 20% or more. Using the Dow Jones as a benchmark this would mean more than 50% of respondents project returns that would propel the Dow to be 33,232 or higher a decade later, and more than 13% would project returns causing it to rise to 66,251 or higher. These expected returns are interesting because they clearly show that even after a severe market setback, the majority of investors in the survey anticipate that future returns will be 20% to 100% or more above the long-term rate of returns for equities. Again, we look to the representativeness heuristic, temporal construal, and the affect heuristic for a psychological explanation of these findings.

Other Findings

Investor confidence. The exceptionally high portfolio returns investors projected for the 1- and 10-year periods both in the 1998 surveys and the late March survey of 2001 indicate that investors are highly confident of the future of stocks. This proved true both in the ebullient market of 1998, as well as in a market that had been rapidly declining for a year prior to the 2001 survey. This confidence comes out in a number of other survey questions as well.

(a) Respondents were asked about their confidence as to whether the U.S. stock market would allow them to meet their long-term financial goals using a 100-point scale where 0 meant no confidence at all and 100 meant complete confidence. In 1998, 57% of respondents gave confidence scores of 75% or

higher, with over 8% being fully confident in U.S. equity markets. In the 2001 survey, conducted near two-year market lows, confidence continued to remain high with 52% giving a score of 75% or greater, and 11% expressing 100% confidence in the stock market. The scores in the 1998 and 2001 surveys are thus quite similar in investor expectations and optimism despite the large change in the market averages. In fact, the findings seem to directly contradict the belief popularly held by many investment experts and the financial media that investor confidence was severely shaken with the market’s sharp downturn.

(b) The findings in section (a) are buttressed by another survey question where respondents were asked whether the U.S. stock market would do well “no matter what happens to the economies of other countries.” In 1998, 66% of respondents answered the question affirmatively. The numbers actually increased marginally to 67% in 2001. Investors seemingly thought that U.S. markets were insulated from markets abroad, despite a major portion of earnings from many large U.S. companies coming from operations abroad, and despite the progressive lowering of trade barriers which makes both economies and markets worldwide more interdependent.

(c) The optimism about the future of U.S. markets and their insulation from foreign markets is further reinforced by investors’ beliefs that they are not taking high risks with their investment portfolios. Respondents were asked both in 1998 and 2001 if they “would be willing to risk larger losses in order to increase the likelihood of achieving higher returns.” Sixty-five per cent in 1998 and 68% in 2001 said that they would not be willing to risk larger losses. From this answer it is reasonable to conclude that respondents believed in 1998 and again in 2001 that they were not subjecting their portfolios to the risk of large losses. The 2001 statement is made in spite of the major losses already accumulated in the portfolios of most mutual funds and other money managers in the 2000–2001 period, which many of the respondents are likely to own.

(d) When surveyed on their holdings of stocks vs. bonds, investors held an average of 27.5% in cash and bonds in 1998 (17.8% cash and 9.7% bonds). This distribution is quite aggressive, with normal equity to cash and bond holdings by Wall Street professionals recommended to be between 50% on the low side and 65% for more aggressive investors. In the 2001 survey the proportion of cash and bonds went up to 32.5% (22.2% cash and 10.3% bonds). These numbers would still be considered to represent an aggressive stance. Overall there was little change between the “asset-mix” in these two time periods, which is another indicator that investor confidence did not decrease significantly between 1998 and 2001, in spite of the sharp decline in markets.

(e) A further indicator of both investor confidence and the risk investors perceive in stocks is a survey

question that asked respondents whether they planned to increase or decrease their portfolio holdings in stocks or stock mutual funds in the next 12 months. During the roaring bull market in 1998, 51% responded that they intended to increase their holdings of equities, while only 7% indicated they intended to decrease their stock holdings. In 2001, there was a significant change in these numbers. Thirty-five percent stated they intended to increase their stock holdings, while 14% stated they planned to decrease their holdings. While the number that planned to increase these holdings in 2001 dropped by roughly a third, and those who planned to decrease stock holdings doubled, it is significant that the buy vs. sell ratio remained very high instead of turning negative. These tables again contradict oft-quoted opinions that individual investors are likely to abandon the stock market.

(f) An additional survey question supports current investor confidence, while contradicting popular Wall Street opinion that investors have abandoned the strategy of “buying on the dips.” This strategy had been both highly popular and successful in the 1996 to early 2000 period. Since then it has on the whole produced large losses on tech stocks, and not inconsequential losses in many non-tech issues.

Three separate questions in the 1998 survey asked investors if they would buy if the Dow dropped 10%, 20% and 30%. The answers were very positive, as might be expected because of the market’s strength at the time. Sixty-nine percent saw a 10% drop in the Dow as an opportunity to buy while only 4% believed it was a time to sell. A slightly higher percentage of 1998 respondents—71%—believed a 20% drop in the Dow was a time to buy, while the number who thought it was a time to sell was still small but had doubled to 9%. Finally, the number who indicated they would buy if the Dow dropped 30%—historically a level reached by this index only rarely since its inception in May 1896—was 62%, while only 14% indicated they would sell. The latter numbers display striking optimism or perhaps over-optimism in response to a decline in stock prices seen only once on average in several decades.

More important are the respondents’ answers to the same questions in the 2001 survey, after the market had plummeted. Were most Wall Street authorities correct in believing that investors would no longer buy on the dip? The answers given in the 2001 survey were surprising. The number of respondents who said they would buy after a 10% drop in the Dow was a striking 67%, while only 5% said they would sell; after a 20% drop 65% still said they would buy, while 8% indicated they would sell; after a 30% drop a remarkable 55% said they would buy, while only 12% stated they would sell. The idea that investors in late March of 2001 had reversed their strongly bullish bias seems to be dispelled by these tables.

(g) The one area of risk perception that did change between 1998 and 2001 involved attitudes toward Internet stocks. In the investor surveys respondents were twice asked for their image of Internet stocks. The first time was in November of 1988. At that point in time most respondents did not have a strong opinion, and in fact exhibited considerable confusion over what an Internet stock was. Many respondents replied to the question by giving back the names of companies that either had an Internet presence, such as Netscape or Yahoo, or were involved in making Internet or computer technology, such as Cisco or Intel. Many respondents flatly admitted that they did not know what Internet stocks were, while some speculated that perhaps they should be invested in them (sometimes while admitting that they were not sure what they were). However, there were some respondents who expressed apprehension about Internet stocks. Of the 304 respondents to that survey, 30 or slightly less than 10%, gave responses such as “scary” or “caution”, or “I would not invest in them.”

This question was asked again in the March 2001 survey. This time the responses were markedly different. While some number of respondents still struggled with what exactly an Internet stock was, 103 of the 309 respondents, exactly 33%, gave a negative image as a response. In addition, the quality of the negative responses was different, with respondents saying things like, “losers is the word for them”, or “they are losing money.” Not only were respondents more than three times as likely to have a negative image, the image often had actual financial content. Finally, there were no respondents in the March 2001 survey who gave an image that indicated that they should be investing in Internet stocks at this point.

With the exception of Internet stocks (which fell an average of 85%–90% from their 2000 highs to their level at the time of the March 2001 survey) people were exceptionally optimistic about the long-term return on stocks. Two possibly interrelated explanations come to mind. The first comes from cognitive psychology. People watching returns rising rapidly ignore the base rate or return of (10.5%) annually since the late 1920s and focus on the case rate (the higher returns in the immediate past which they extrapolate into the future) perhaps using the affect heuristic to process generally positive feelings toward an abstract vision of a generally benign market environment.

The second is the superior annual rate of return for stocks over bonds of approximately 75% between 1802 and 1997 (Siegel, 1998). Following up on Siegel’s work, Dreman (1998) demonstrated that with inflation almost quadrupling in the post-World War II period, stocks increase their superior returns over bonds more than seven-fold in the 1946–1996 period (inflation-adjusted). In the post-war period stock returns

continued to be highly positive. One hundred thousand dollars invested in stocks in 1946 became \$3,997,898 in 1996, and one hundred thousand dollars invested in bonds became only \$154,763 for the same time period, while \$100,000 invested in T-bills became only \$123,831 (all numbers are inflation-adjusted). If taxes are added, the dichotomy in returns of stocks compared to bonds and T-bills increases substantially. The vastly superior returns of stocks in the post-war period took several decades for most investors to fully appreciate, but now may form the basis of their optimistic long-term forecasts.

From the early nineteenth century through the 1950s and possibly 1960s, stocks were considered to be far more risky than bonds. A "prudent man" would keep the majority of his savings in bonds, T-bills or income producing real estate.³ Given the striking change in investment returns after World War II, it appears that by the 1990s there was a major shift by many investors to stocks as their primary investment vehicle. This shift seems to be confirmed by the fact that the stock to bond and cash ratios changed in only a minor way between the period of near euphoria in which the 1998 surveys were undertaken, and the mood of extreme optimism existing at the time of the March 2001 survey.

Nevertheless, rates of return on equities projected by investors in the surveys still appear to be significantly higher than can be justified by stock price or earnings growth over time.

Frequency of portfolio monitoring and trading. The surveys produced several other findings that we believe might be of interest. The first was how frequently investors claimed to monitor the value of their portfolios. In the 2001 survey, the respondents can be broken down into approximately four equal groups, with about 20% each monitoring daily, weekly, monthly or quarterly. Only 7% monitored yearly and 2% never monitored. There was a strong relationship between how often people examined their portfolios and how often they decided to trade. For example, those who monitored on a daily basis were more likely to make investment decisions on a monthly or shorter basis, while those who monitored on a monthly basis were more likely to trade quarterly or yearly.

People who traded on a more frequent basis had higher expectations for both annual and 10-year average returns. The surveys do not contain enough information to measure the number of people who made changes in their portfolios on a daily or weekly basis. However, it was found that respondents who claimed to trade their portfolios monthly expected about a 2% higher return than those who did so quarterly, yearly, or never looked at them.

There also appears to be a division between investors who monitor and trade on at least a monthly basis and all other classes. In the cases of both monitoring and deci-

sion-making, frequent involvement is associated with increased confidence. This is shown in the marked difference in confidence estimates each of these classes of investors gives to the market. The median level of confidence was highest for those who make monthly decisions, and declined for each class who made decisions less frequently or did not make decisions at all. For those who make monthly decisions the median confidence was approximately 80%, as opposed to 50% for those who never make decisions to trade.

The more likely an investor is to monitor or make a decision the more likely he or she will also buy on the dips. For a 10% decline, the "buy" figures run from 86% for those who monitor on a weekly basis, down to 65% for those who make yearly decisions, and only 38% among those who never make decisions. The pattern is the same for a 20% drop in the Dow.

Ironically, institutional consultants and financial academics generally believe that the higher the trading level, the lower the returns (e.g., O'Dean & Barber, 2000). If this is so, the higher confidence levels that we found to be associated with more frequent monitoring of portfolios and higher levels of trading are likely to result in lower returns. The reason is not difficult to discover. More frequent trading results in higher transaction costs, not only in commissions, but also in the spread between the bid-offer prices, which can often be many times the commission cost (as much as 40% for a purchase and sale of stocks of low liquidity). Secondly, market timing has on the whole produced substandard results as academic studies have repeatedly proven that short-term price movements follow a random walk.

Gender differences. There were also some interesting gender differences in the 2001 survey. Men were more likely to monitor their portfolios on a daily, weekly or monthly basis than were women (77% vs. 63%). The proportion of men who monitor daily was more than double the proportion of women (28% vs. 13%). Men were also more likely than women to state that they intended to increase the percentage of stocks in their portfolios over the next 12 months (40% vs. 30%), while women were more likely to say they would decrease their percentage in stocks (17% vs. 11%). Men also expected greater returns on their stock holdings over the next 12 months than women (10% vs. 8% for the medians), while long-term expectations were the same. Women had less confidence in the market than men (median score of 65% for women vs. a median score of 75% for men).

Men were also more likely to say they would buy on the dips: 70% of men vs. 64% of women indicated they would buy after a 10% drop in the Dow. The proportion of men actually increases to 79% after a 20% drop in the Dow, while the number of women decreases to 52%. Lastly, men more frequently said they would be

willing to take large losses in their portfolios to achieve large gains than did women (40% vs. 24%).

Income differences. The 2001 sample can be classified on income in a number of ways. The classification used here looks at respondents with income over or under \$40,000 a year. Unfortunately the survey did not have enough respondents with annual income \$100,000 or more to form a group. A group with income greater than \$100,000 might accentuate some of the characteristics viewed in the \$40,000 and over group. Even so, some significant behavioral differences between those with incomes over/under \$40,000 are evident. Those with more money monitored their portfolios more frequently and made more frequent decisions based on this monitoring. Secondly, those with higher income expected higher returns. Those with income above \$40,000 expected a median above 10% for the next 12 months, while those with incomes below \$40,000 expected slightly above 8%.

Projecting across 10 years, those with incomes above \$40,000 expected the same returns as those with incomes below \$40,000 (12% vs. 12%). However, the confidence scores were much different within the 2 groups, with median confidence scores for those above \$40,000 at 75, and for those with incomes below \$40,000 at 50. The proportions buying the Dow on a dip were also significantly different. Seventy-four percent of those with incomes above \$40,000 stated that a 10% drop (and 76% stated that a 20% drop) in the Dow was an opportunity to buy, vs. 50% and 47% respectively for those with incomes under \$40,000 dollars. The final difference was that 94% of those with incomes over \$40,000 had an opinion on the valuation of domestic stocks, while 80% of those under \$40,000 had such an opinion. These income-level results seem to be similar to those based on the frequency with which people monitored their portfolio, and there might well be some connection between the two. Greater frequency of trading is associated with inferior returns (see the prior section on frequency of trading). Could higher income thus lead to sub-par returns? This is a question that should be examined in future surveys.

Age. The respondents were broken down into two roughly equal groups: above and below 60 years of age. As might be expected, those under 60 claimed to be more active in their investment decision-making, with 62% making decisions at least quarterly, compared to 41% among those over 60.

Again, as might be expected, those over 60 have a substantially higher percentage in cash and bonds, although they still have major investments in mutual funds and equities, with a larger number planning to increase rather than decrease stock holdings in the next 12 months. Those over 60 also expected lower returns

on their equity portfolios during the next 12 months (median return of 8% vs. median of 10% for younger investors). For expected 10-year returns, the differences were significant. The median for those over 60 was a 10% average return, in line with long-term returns on stocks, while for those under 60 it was 14%. Confidence in the market was high in both groups, with a score of 70% for those over 60, and 75% for those under 60.

Both age groups saw a 10% drop in the price of the Dow as an opportunity to buy, but the percentages were considerably different. Fifty-eight percent of the older than 60 group saw this drop as a buying opportunity, while 76% of the under 60 group saw it this way. Those above age 60 were more likely to think stock prices are overvalued (39% vs. 25%). Both groups had similar confidence in the future of U.S. markets. However, those over 60 were much less likely to say they would risk large losses to achieve their financial objectives, compared to those under 60 (20% vs. 46%). Again this answer appears to be grounded in the fact that many in the older sample are approaching retirement or living on their retirement income already. However, if this assumption is true, this group still believes the stock market is safe because of their involvement and confidence in it, as well as the willingness of more than half of the over 60 sample to buy on the dips.

Discussion and Conclusion

From the results of the survey on investor expectations of returns, confidence, risk taking, portfolio composition between stocks and bonds, future purchase plans, and intentions to buy on the dips, it appears that the sharp stock market decline to March 2001 resulted in only minor changes in investor sentiment. That investor expectations of future returns were not reduced significantly by the poor market performance of 2000 is probably the most surprising result of the 2001 survey. As noted in our discussion of investor confidence, people were exceptionally optimistic about the long-term returns of stocks. This optimism may be due to an awareness of the significantly higher returns of stocks over bonds in the post-World War II period, and to a belief that this superiority of stocks will continue into the future.

Another indication that investors in 2001 still expressed confidence in the stock market was the finding that a high percentage of respondents indicated a willingness to buy on the dips; an action that had proved damaging in the past year, but had been highly successful in the latter half of the 1990s.

If the market continues to provide returns well below the abnormally high 15% annual rate of the 1982–2000 period, it is quite possible that the investor expectations of future returns may fall, possibly even

dropping below the long-term rates of return of stocks (10.5% over the past 75 years). We would expect that the longer the period of time that the market provides sub-par returns, the more likely that future expectations, both 1 year ahead and 10 years ahead, would drop.

Other interesting findings were that men appeared to have higher risk tolerances than women, were more confident of their decisions, and also expected higher returns over time. The survey also found that investors who monitored their portfolios more frequently also tended to trade more frequently, were more confident of their decisions, and expected higher rates of return; investors with higher incomes exhibited a similar pattern of trading activity and confidence.

Contrary to the conventional wisdom on Wall Street, investors in 2001 were confident that the stock market was a safe place to put a significant part of their liquid assets, and were willing to add to these investments if the market declined further. These results are at least partially corroborated by the fact that from the beginning of 2000 through the time of the 2001 survey, equity funds received significant inflows of new money, albeit at a lower rate than in the roaring bull market years of 1998 and 1999.

Surveys on investor sentiment appear to be useful in two ways. From a practical standpoint, they provide insight into levels of confidence that may well predict future market performance. From a theoretical perspective, they can provide insight into the fundamental psychological processes that influence investor decisions and market behavior. In this latter regard, the present study suggests that lay investors may, under some circumstances, be ill-equipped to make financial judgments and decisions that are in their own best interests. From this perspective, we question whether at least some categories of investors are suitably prepared to deal with the challenging demands on their judgmental abilities posed by participation in current financial markets. Excessive optimism coupled with the dominance of imagery seen in the present study results point to potential policy implications, such as a need

for better methods of informing financial consumers and aiding their judgment.

Notes

1. All five surveys were conducted from a master list of more than 220,000 people who had previously stated they owned investment securities. The average sample size was about 300, 47% of whom were female and 53% male. The median family income was \$60,000, the median age of the respondents was 47 years, while 21% held advanced college degrees.
2. The publication, *Stocks, bonds, bills, and inflation—2001 yearbook*, covers the period 1926–2000, a 75-year period.
3. The prudent man rule was developed in 1830 by Justice Samuel Putnam of the Massachusetts Supreme Court. Putnam defined how a “prudent man” acting as a fiduciary would act, which in effect would keep the major part of a portfolio in bonds and other fixed-income securities or income producing real estate and only a minor part in stocks.

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