## Why Stock Investors Freak Out

New research sheds light on client panic during market downturns—and how advisors can limit the portfolio damage



Stock investors who watched the Dow drop by nearly 50% between August of 2008 and March of 2009 were put to the ultimate risk tolerance test. As they saw their retirement dreams dissolve with their account balances, individuals pulled record amounts of money out of equity mutual funds. According to the Investment Company Institute, net equity fund flows were minus \$28 billion in January 2009, minus \$29 billion in February and minus \$25 billion in March. A lot of equity investors freaked out during the great recession. And they paid for it big time.

Much of this money flowed into money market funds. An investor who freaked out and sold \$100 in stock in early March 2009 would have earned about a dollar on her money market investments by the summer of 2013. The patient investors saw their stock investment climb to about \$244.

This is a boon for those of us who study investor decisions, but it was a nightmare for many advisors and their clients. The great equity market freak-out of 2008-2009 battered the accounts of weak-stomached investors. More resolute investors survived the crisis unscathed. So who bailed and who sailed through the storm? New research provides some surprising insights into which clients might be most likely to stick with their investment plan.

It's hard to anticipate who will abandon their asset allocation policy during a recession. One way is to ask potential clients a battery of risk-related questions. These risk-tolerance assessment tools are a great way to both get the client thinking about the meaning of investment risk and also begin to assess how much volatility they can bear. Texas Tech graduate student Michael Guillemette and I looked at how questions from a commonly used risk tolerance questionnaire predicted whether someone shifted investments to cash during the Great Recession.

We find that questions that measure loss aversion are good predictors of cashing out stock investments. Examples include whether someone focuses on the possible losses or the potential gains from a risky opportunity. If you dwell on the negative, you tend to react badly when your fears are realized. Loss aversion is different from risk aversion because it predicts that investors will overweight losses (seriously—Daniel Kahneman won a Nobel Prize for, in part, pointing out that people really don't like to lose money). An even better predictor was simply asking people how much risk they've taken with investments in the past. General questions about things like salary risk didn't do a great job of predicting response to a bear market.

Even though risk tolerance questions do predict actual behavior, they're not perfect. Many clients who say they understand that equity investing involves potentially losing money aren't as brave when the losses start getting real. According to Texas Tech neuroscience expert Russell James, this is because who we are when we project our risk tolerance is different than who we are when faced with losses in the present.

"A common behavioral bias is referred to as projection bias," says James. "When you are in a rational 'cold' state, you plan for the future as if you will always be in a 'cold' state." When we make decisions in the present, we're using the rational prefrontal cortex. But when we experience a loss, we tend to use a part of the brain associated with emotion. Since we make decisions about how we will act in the future with a different part of the brain than the one we use when we experience a loss, it's hard to project how our emotional, irrational brain is going to respond.

A client guessing how she will behave when her portfolio takes a dive believes she will be rational in the future. But when the future comes and things start getting scary, emotions kick in. According to James, "when investors actually start seeing their accounts losing massive dollars in a downturn, this triggers the 'hot' state emotions." And when the emotional part of the brain starts firing up, it can take over.

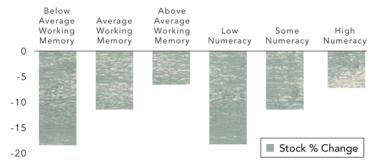
In order to withstand the heat, we have to tamp down our emotions with reason. This can get easier after we've experienced a few bear markets and subsequent recoveries. One might expect that more experienced investors will do a better job of talking themselves down from the ledge. This is exactly what we find when we investigate who shifted their money out of equities during the great recession.

A new study by East Central University professor Chris Browning and me looks at how households over age 55 shifted their portfolios between 2008 and 2010. After correcting for equity market movements, we find that, on average, stock investors in this age group decreased the equity share of their investment portfolio by 12%. This is a particularly important group, since equity ownership is actually much higher among those over 65—mainly because they have more wealth in general.

So who moved to cash during the great recession? Unsurprisingly, wealthier and more experienced investors stuck with their portfolio. We also find that whites were less likely to move to cash than non-whites. Investors with less than a one-year planning horizon freaked out, but long-term investors didn't. In a separate study, Vanguard's Stephen Utkus and his co-author Jean Young found that only about 3% of Vanguard accountholders (who tend to be long-term investors) abandoned stocks between 2007 and 2009.

## STOCK SELLING AND COGNITIVE ABILITIES

In a study of investors over age 55 between 2008 and 2010, those with higher numeracy and working memory were less likely to shift to cash.



Source: Browning and Finke, 2013.

A strong and unexpected predictor of shifting to cash was a decline in cognitive ability. Browning and I mapped portfolio changes against the decline in cognitive scores during the two year period. Numerical cognition is measured by asking respondents to count down from 100 in units of 7 (93, 86, etc.), and working memory is measured by their ability to recall a list of 20

random words. Those with high numeracy scores were 40% less likely to shift to cash. Higher word recall scores meant respondents were 25% less likely to shift to cash. (See table.) Those whose cognitive abilities are beginning to slip begin to lose their taste for stock volatility.

James isn't surprised that lower cognitive scores might lead to a stock freak-out. "It takes a lot of rational cognitive 'horsepower' to overcome the aversive emotional reaction," notes James. "To the extent that a person has less cognitive strength, overcoming the emotional fear reaction becomes more difficult. This may be of

particular concern for those experiencing mild age-related cognitive decline, as the fear emotions may become

more difficult to counteract with rational effort."

Reducing the consequences of a big investment loss can also help reduce anxiety. Texas Tech doctoral student Andy Oumtrakool found that retirees with private health insurance and an adequate emergency fund were a lot less likely to freak out about portfolio volatility. This makes perfect sense, but it is also a reminder that insurance can not only put clients at ease but also help them manage investment turbulence. If I know I'm protected against a big unexpected loss, I'm less likely to feel threatened by a drop in my portfolio.

Another thing we can do to help reduce the anxiety of a bear market is to talk with someone else. This is because while we may be thinking emotionally, others can assess our situation using the more rational parts of their brain since it's not their money and they are not experiencing a loss.

That's one of the benefits of using an advisor to help make financial decisions—drawing on someone who's better than you at making decisions that may have emotional consequences that can trigger the less rational thought processes. In a study using the Advisor Impact Survey, professors Danielle Winchester, Sandra Huston and I found that one of the strongest predictors of maintaining one's portfolio allocation was using a financial advisor. Even when we controlled for wealth and investment experience, the use of an advisor increased the likelihood of staying the course by 50%.

Even more valuable than using an advisor was having a written financial plan. The process of writing an investment policy statement forces a client to work with the advisor to select the right mix of risky assets. Setting an investment policy activates the rational part of the brain and links our portfolio with our long-term goals. That's another advantage of weaving investment policy into a written plan—it forces us to extend our investment horizon so we can relax in the face of inevitable swings in the value of risky assets.

We found that the creation of a written plan means that a client is twice as likely to avoid the equity market freak-out. It also gives advisors two powerful tools to manage client anxiety. The first is to remind clients (who presumably were coached about investment risk) that they have an optimal portfolio that is part of a plan. The second is to help them focus on long-run goals so they have an answer amid worries about whether they'll be O.K. after a rough quarter.

All stock investors are going to lose money. Pulling out of stocks at the wrong time can erode portfolio performance and get in the way of reaching long-run goals. While finding the right client helps, finding ways to manage emotions through a well-articulated investment policy statement might be the best way to help clients avoid the freak-out.