Your Money & Your Brain—By Jason Zweig

Neuroeconomics is an emerging field of study that is a hybrid of neuroscience, economics and psychology. This subject is explored in depth in Jason Zweig's book, *Your Money & Your Brain*. Zweig, a senior writer for Money magazine, says that the study of neuroeconomics is giving economists the ability to better understand what drives investing behavior. Advances in imaging technologies, such as functional MRIs and other advanced imaging instruments, lie at the heart of this new field. For the first time in history, researchers have powerful tools that allow them to peer deeply into the functioning of human brains.

Conventional economics assume that investors know what they want, understand the tradeoff between risk and reward, and use information logically to pursue their goals. What neuroeconomists are finding is that the data generated with the new, powerful imaging tools conflicts with many of these assumptions. In fact, Zweig tells us that the study of neuroeconomics shows that much of what conventional economics assumes about the behavior of investors is dead wrong.

Neuroeconomics shows that the best traders strike a balance between rationality and emotion.

Neuroeconomists see human brains as a superbly functioning machine for most purposes in daily life. They guide people away from danger while reliably guiding them toward basic rewards like food, shelter and love. However, when it comes to processing the far more challenging choices associated with financial markets, the machine can lead investors astray. Our brains, observes Zweig, are at their best and worst when people make decisions about money.

One of the major themes of Zweig's book is that investors' brains often drive them to do things that make no logical sense, but make perfect emotional sense. This kind of behavior does not make investors irrational. It merely makes them human. The human brain, says Zweig, is designed to seek more of whatever improves the odds of survival and to avoid whatever would worsen those odds. Emotional circuits deep inside the brain make people instinctively crave whatever feels likely to be rewarding—and shun whatever seems liable to be risky.

Human brains have a thin veneer of relatively modern, analytical circuits that are designed to counteract the impulses from cells that originally developed tens of millions of years ago. It is often the case, however, that the analytical circuits in the neo-cortex fail to blunt the emotional power of the most ancient parts of our minds. Knowing the right answer and doing the right thing, notes Zweig, are often very different.

Of course, this sounds a lot easier said than done!

Zweig tells us that our brains do not just add and multiply and estimate and evaluate. We make investment decisions against the backdrop of myriad feelings—feelings such as hope, greed, cockiness, surprise, fear, panic, regret and happiness. When we win, lose, or risk money, we stir up some of the most profound emotions a human being can ever feel. Zweig notes that the 100 billion neurons that are packed into that three-pound clump of tissue between our ears can generate an emotional tornado when we think about money. And it is that emotional tornado that can lead to behavior that flies in the face of conventional economic thinking.

Investing requires people to make decisions using data from the past and hunches in the present about risks and reward that will produce results in the future. Investors combine cold calculations about probabilities with instinctive reactions to the thrill of gain and the anguish of loss. The study of neuroeconomics shows that the investing brain is far from the consistent, efficient, logical device that conventional economists like to pretend and assume it is.

One of the most interesting points in Zweig's book concerns the effects of pure rationality on investment performance. Pure rationality is commonly assumed in conventional economics theory. However, it turns out that pure rationality with no feelings can be as bad for portfolio performance as sheer emotion unchecked by reason. The study of neuroeconomics tells us that investors will get the best results when they harness their emotions, not when they strangle them—that is, when they strike the right balance between emotion and reason. This is the main message of Zweig's book.