

Bees teach investors handy lessons



Honey bees have learned to manage risk.

IS there a connection between how a honey bee collects its nectar on a summer's day, and the performance of your investment portfolio?

Bees make investment decisions every day, expending much time and effort searching for returns, which in their case is nectar from flowers. The link between investment and bees was explored by ecologist Leslie Real of Indiana University back in 1991 in a study that monitored honey bees' behaviour to better understand attitudes to risk. This study will be unknown to most investors but offers some valuable insights.

During the experiment bees were given their own investment choice to make: Either feed from blue flowers which always contained 2ml of nectar without fail, or gorge on yellow flowers, which were randomly mixed so that one in three contained a triple payoff with 6ml nectar.

Theoretically, the bees were tempted with the same payoff - either drink from blue flowers with 2ml or from every third yellow flower with 6ml nectar. But the blue flowers paid the same reward each and every time while the yellow flowers only gave the nectar sporadically and were therefore more risky - much the same dilemma regularly faced by investors.

The experiment showed that bees initially "invested" evenly in both colors. But they quickly learned to stick to blue flowers, which always contained 2ml of nectar. In fact, they preferred the reliable blue flowers over the yellow flowers 84 per cent of the time.

For bees the consistency of the gain became more important than the amount of the gain. Bees thus have a strong preference for a reliable supply of nectar over an irregular reward.

Human behaviour when investing is vastly more complex but neuroeconomics, a relatively new field which combines economics, neuroscience and psychology, aims to understand what drives investment behavior and decisions. It considers basic biological functions along with the theoretical and practical level of investing revealing the role that emotions play.

Neuroeconomics has found that intangible motives like avoiding regret or achieving a reward influence investment decisions more than you might think. Scientists have discovered that the brain processes a financial loss in the same area where a mortal danger is processed. Perhaps strong emotions related to survival, such as fear and greed, are hard-wired into our investment brains after all.

Similarly, how we experience a gain or loss is relative. Investors must evaluate how a financial gain varies relative to the total amount that is at risk. Our risk tolerance level is not consistent. We don't have a single level of risk tolerance but multiple levels that can change and emotions can easily impact our attitude toward risk. Even small changes in our mood may change how we perceive risk. When the difference is high people generally gravitate away from risk to more certain outcome and most people will prefer a smaller steadier payoff over a highly variable one.

Before investing we should understand something about how we make those decisions and what impacts our decision making. Why not take some time out and think about the bees and the blue flowers before making an investment promising a triple return. There may also be some empty flowers on the way.

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