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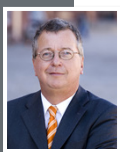
OBSERVATOIRE DE L'EPARGNE EUROPÉENNE

Have savers lost their minds ?

BEHAVIORAL BIASES

Traditional economic models are based on the assumption of rational behavior, which are often far from reality. A new stream of research, originally initiated by psychologists interested in economic science, has highlighted decisions corresponding to other logic than that of "homo economicus". The OEE has initiated several studies analyzing the behavioral biases of investors.

OEE's Partners



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ISSUES AT STAKE

- Should behavioral biases be corrected by regulation and taxation?
- Does the variable intensity of behavioral biases that depend on the situation of investors (such as gender, age, marital status) justify a differentiated commercial approach by financial intermediaries?
- Does financial literacy reduce behavioral biases?
- How can intermediaries optimize the way in which they speak to their clients about their risk profile and their goals?

What are the determinants of risk taking?

Risk taking by investors depends on three factors:

- *Their expectations on returns of financial products*
- *Their expectations on the risk of such products*
- *Their risk aversion*

Withdrawal from risky products may result from changes in expectations without necessarily reflecting greater risk aversion. Expectations are influenced by general events affecting markets and individual experiences of loss or gain.

The OEE asked **André de Palma and Nathalie Picard** to investigate to what extent and why investors have turned away from risky assets (especially equities) following the financial crisis of 2008. This behavior can be explained either by a change in investor expectations about the risks and returns of different types of assets or by a change in attitude to a given risk. To take into account the bias introduced by the subjective statements of investors, researchers worked on data that mix stated preferences through a questionnaire on attitudes to risk with preferences proved through data on products held, amounts per asset and the structure of wealth of those interviewed[1].

Based on a panel of affluent investors with wealth superior to EUR 50,000 (SoFia panels, TNS Sofres) and an academic panel (students and teachers in economics and finance), the effects of the 2008 crisis were analyzed with the methods of behavioral finance developed by **Daniel Kahneman**, Nobel Prize in Economics in 2002, and **Amos Tversky**. They show that the financial crisis had three main effects:

1. Investors were **slightly more risk averse** after the 2008 crisis and turned away from riskier assets.

2. They were also **more averse to losses**; they gave more weight to the probabilities of losses than gains in their decisions.

3. Their **tendency to distort probabilities increased**; they overestimated low probabilities of significant losses.

The study also allows findings to be differentiated according to demographic characteristics. For example:

• Women are on average more averse to risk than men. They distort more probabilities and are more pessimistic.

• Those who are widowed or divorced are, on average, more risk averse, more loss averse and more pessimistic.

• Married people distort more probabilities than the average (and more than people living together without being married).

Finally, differences were found between the statements of the respondents and their actual decisions.

An additional study by **Maxime Merli and Patrick Roger** was based on data provided by an online broker on transactions involving more than 90,000 French individual investors from 1999 to 2006. They highlight **the difficulty of investors to accept their losses**, a behavior called the **"Endowment Effect"**, coined by Daniel Kahneman, which refers to the probability of an investor unwinding a winning position being 60% higher than that of unwinding a losing position. This tendency of investors to take their gains too soon and keep the losing positions too long fades slightly for the more sophisticated investors because of their use of derivatives, short selling or international diversification.

A further study by **Martin Weber**, **Elke U. Weber and Alen Nosic**, which also relates to transactions of an online broker's clients, has the advantage of conducting surveys on the same sample group over a prolonged period of time, including before and after the 2008 financial crisis. The study confirms the existence of bias, including the fact **that investors are more optimistic about their own portfolio than about the market.** They show that behavioral changes result from changes in risk and return expectations, not from changes in **risk aversion, which remained fairly stable over time**.

[1] Five categories of assets are considered: Home savings, savings accounts, life insurance (guaranteed contracts), life insurance (unit-linked contracts) and securities.

Lessons for savers

Avoiding behavioral and cognitive biases would improve investment performance. Delegated portfolio management in the framework of a mandate or a fund may allow escape from such biases.

Lessons for financial authorities

Implementation of MIFID provisions on financial advice should take into account the findings of behavioral finance.

Research done for the OEE

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Martin Weber, Elke U. Weber & Alen Nosic, "Who takes risks, when and why: Determinants of changes in investor risk taking", October 2010. The study was published by *Review of Finance*, Volume 17 N°3, July 2013.