

The paradox of more data for investors

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Data – it's the buzzword of the 21st century and it's getting bigger and bigger, but for investors, more data does not necessarily mean better investment decisions.

While it may seem self-evident that the world we live in has seen a dramatic increase in the production and availability of data, the same cannot be said about our ability to use this data in making better investment decisions. Why is that?

The first reason is that investors are necessarily fallible. No matter how brilliant investors might be, they have cognitive ceilings for everything from processing to memory capacity. Whereas machines and algorithms can be trained to weigh up and rank data in order to make decisions that yield only the highest returns, our human decision-making processes are considerably less capable. We simply cannot consider all of the options and behave consistently over time.

The second reason for why more data doesn't make us necessarily better investors is because the biases and mental shortcuts that inform our every day more automatic, less considered decisions become aggravated in times of uncertainty.

Take this quick quiz

1. How do you rate your driving ability versus all other drivers in South Africa?

- Top 10% of drivers
- Bottom 10% of drivers
- At the 50% mark of drivers

2. If you were to invest your assets in a choice of four risky assets, where all assets yielded the same expected returns and variance of returns, and you were offered the choice to switch to trade your portfolio for an expert's portfolio, what would you do?

- Accept a low payment for my portfolio so that I could switch to the expert's portfolio.
- Pay a high amount so that I could switch to the expert's portfolio.
- Hold onto my own portfolio.

3. Can you define the following terms?:

- homo sapiens
- homo technologicus
- homo economicus
- homo erectus

4. Drawing on your financial knowledge, provide a definition of these concepts:

- pre-rated stocks
- fixed-rate deduction
- annualised credit

How do you feel about the quiz that you have just taken? What level of confidence would you ascribe to your answers?

Surprisingly, research tells us that our confidence in our answers is not mirrored by our accuracy. For question 1, 90% of respondents in the USA considered themselves to be better than the average driver [1].

In question 2, an experiment found that 64% of subjects preferred their own investment portfolio over the expert's [2].

In question 3, studies show that between 87 and 92% of respondents would claim some familiarity with or knowledge of a made-up term such as 'homo technologicus' when presented amongst other general knowledge terms.

Similarly, in question 4, approximately 92% of people claimed at least some knowledge for these foil (made-up) investment terms. [3]

Our overconfidence issue

When we make decisions, we can either engage our quick, habitual level of behaviour (termed System 1 or 'Thinking Fast' [4]), or a more deliberate, considered approach (termed System 2 or 'Thinking Slow').

We would like to believe that we are objective, deliberate decision-makers all of the time, and that the ever-increasing supply of data and information can only further optimise our cognitive ability. In reality, we reach the limit of our number-crunching

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Moreover, it generally requires us humans to use up quite a lot of mental energy. To save ourselves the indignity of putting in effort and still coming up short, our decision-making has evolved to be good at two things: first, we engage our system 1 thinking and take cognitive shortcuts; second, we cover up the cognitive tracks of this process to ensure we still feel like objective optimisers.

I am better than the rest

This is true in the quiz example from earlier. When participants should be indifferent to the portfolios in the experiment, they demonstrate a preference for their portfolio, because they believe it to be better than the others. The amount that participants were willing to accept for their own portfolio was 20% higher than the amount they were willing to pay for a different portfolio, despite being told that the portfolios all had the same expected rate of return.

The more knowledge or information that we have, the more support we can fit to a belief that we have already taken without knowing why: to keep our self-esteem intact, say, or ensure we feel comfortable acting decisively in situations in which we simply can't crunch all the data.

My decision will be accurate

We demonstrate this behaviour too when we are overly confident about the accuracy of our decisions. Consider the rise of Bitcoin in South Africa. Initially, investors believed that they were onto something special, and there was a host of data that could be found to support this. But when the January 2018 price of \$16 500 fell 79% to \$3 855 on December 6, 2018, suddenly that reaffirming data and certainty was nowhere to be found.

The sobering fall of Bitcoin makes a strong argument for engaging system 2 thinking, and for questioning the accuracy of our decisions at every juncture.

What this suggests is that more data in the hands of a computer does indeed make for better financial investment decisions. For the most part however, more data in the hands of the lowly human – especially when fuelled by hubris – is a recipe for disaster: the paradox of more data.

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Better investing in the modern age, therefore, suggests having the self-insight to recognise overconfidence and being prepared to entertain contrarian views when there is a dominant investment thesis.

Sources

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[3] Atir, Rosenzweig & Dunning, 2015. *When knowledge knows no bounds: self-perceived expertise predicts claims of impossible knowledge.* *Psychological Science*, 26(8).

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This article was first published on the Investec site on 11 February 2019:

https://www.investec.com/en_za/focus/investing/the-paradox-of-more-data-for-investors.html

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