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Opinion
AI as a miracle investment tool

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Artificial intelligence is used increasingly in asset management. However, investor expectations and the risk of disappointment are high.

Artificial intelligence (AI) has been booming for some time. It will increasingly become integral to our lives, for example in medical diagnosis, automated driving, fraud prevention and the use of search engines, voice assistants and navigation systems. Which raises the question: Will AI revolutionise the world of asset management and what can it deliver as a predictive tool for stock, bond and currency markets?

Many investors dream of a chatbot that can predict stock prices, interest rates or the value of the dollar. Anyone concerned with the predictability of exchange prices must ask how efficient liquid capital markets are, i.e., how quickly new information is incorporated into prices. After all, forecasts can only be systematically successful – and not purely by chance – if the "prophet" possesses knowledge and information that is not yet reflected in exchange prices.

Since the Nobel Prize was awarded to Harry Markowitz and Eugene Fama, there has been no doubt in serious financial research that at least liquid stock and bond markets are highly efficient. In a highly technologised and connected world, new information about changes in corporations, interest rates and currencies travels around the globe in a matter of seconds, quickly affecting prices.

It is therefore no coincidence that even the world's leading financial institutions, with their legions of highly qualified analysts, fail to achieve systematic outperformance with their active funds. Past experience has shown that this sobering reality applies to even the most powerful chatbots. By the time the chatbot receives a query about the impact of the Fed's interest rate decision on the dollar exchange rate, or the impact of Novartis' latest earnings on its share price, the information has already been priced into the market.

High-frequency traders already use AI
It may be that markets are not fully efficient in the extremely short time frames of milliseconds or seconds in which new information speeds around the globe and is incorporated into exchange prices. In this time frame – barely perceptible to humans – extremely skilled computer scientists, mathematicians and physicists in High Frequency Trading (HFT) use sophisticated and very complex programs or strategies to exploit information advantages. This essentially removes the remaining inefficiencies from capital markets. This can only be achieved with massive amounts of data (big data) and self-learning, high-performance computers (machine learning). Algorithms analyse patterns and correlations on exchanges that have a high probability of predicting a short-term trend.

For example, if the computer knows from past data that there is a high probability of a short-term rise in the price of gold when the US S&P 500 falls due to an economic warning and the dollar tends to weaken simultaneously, it will try to take advantage of this.

> "AI will never give better advice than the people who feed it."

There's a 60% or 65% chance that the price of gold will actually rise in response in the next second, while there's a 35% or 40% chance that it will fall. It takes thousands of such or similar trades for a leading global high-frequency trader to make money by the end of the day. Strictly speaking, AI for predicting exchange prices has been around for a long time.

However, no chatbot in the world will be able to predict exchange prices over a time horizon of weeks, months and certainly not a year. All the information has long reflected in the exchange prices by the time the user submits their query to the robot. As a result, neither private nor institutional investors will be able to predict exchange prices in the future, no matter how sophisticated AI becomes.

The value of AI in asset management is therefore not in predicting exchange prices, but in gathering information, structuring portfolios and selecting stocks or

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bonds. Similar to robo-advice concepts, investors can specify individual preferences, the preferred quality and risk of their investments, and define restrictions or exclusions.

In order for AI to provide the investor with an optimal recommendation, the investor needs to ask the chatbot the right questions. If the user asks imprecise or misleading questions, they risk receiving recommendations that are against their interests. AI will never make better recommendations than the people who feed it. Experience with robo-advisors shows that success has its limits. To date, both the volume and growth of funds managed by robots remain modest.

A poor psychologist

AI gathers extensive information from newspaper articles, academic papers and books. But it is precisely here that the dangers lurk. These are often written by authors who put their own interests before those of potential users. AI will find it difficult to tell in certain texts whether it is reading a justified opinion, a courtesy report from a 'bought' scientist, or a marketing specialist from a bank who has to meet his manager's product sales targets.

The usefulness of AI becomes even more questionable when chatbot providers are funded by advertising. In this case, there is a risk that the chatbot will prioritise recommending high-margin, complex, opaque and client-unfriendly products. The recommendation would then be artificial at best, but certainly not intelligent. In addition, when it comes to AI, the user cannot attribute bad advice to a human or complain to someone. A chatbot acknowledges its 'client's' dissatisfaction without emotion.

Trust remains the key currency

The most important currency in the investment business is trust. This is built through face-to-face meetings, giving investors the opportunity to look their human advisor in the eye, assess their seriousness and honesty, and discuss their preferences, fears and concerns. Depending on whether the stock, bond or currency markets are sunny, stormy or going through a divorce, the mood of investors can change quickly. Responding with empathy and understanding remains beyond even the most sophisticated chatbot. AI is a terrible psychologist.

AI's knowledge is superhuman, but unlike humans, it lacks morality. Only people with heart, soul and passion can offer honesty, personalised competence, personal empathy and trustworthiness. AI can be useful as a tool, but it will never replace the human advisor.

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