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Fiona Frick: ChatGPT and the meaning of life

No easy answer

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Image: Fiona Frick is managing partner of Circe Invest

Recently, a thought-provoking discussion with an astute investment journalist led to a startling comparison.

The human questioning of ChatGPT's influence on investment shares a parallel with Douglas Adams's *The Hitchhiker's Guide to the Galaxy*. In the book, Deep Thought, a supercomputer, deduces the meaning of life as "42" after seven and a half million years of computation.

The analogy here is not between the number 42 and investment, but rather the driving quest in both narratives.

Investors' eternal search for the 'Golden Formula'

Investors, like the characters in Adams' book, are constantly in search of the "Golden Formula" that promises superior investment returns. They envision a computer delivering this formula after countless calculations. However, based on my experience managing various quantitative investment processes throughout my career, I have learned that this pursuit is unattainable, at least for now.

Quantitative models can significantly enhance the outcomes of an investment process by improving accuracy in specific tasks. Machine- learning algorithms, unconstrained by linear limitations, reveal complex relationships in data, effectively addressing the low signal-to-noise ratio inherent in financial markets.

In this context, these models have demonstrated their utility in predicting short-term moves such as daily equity returns or identifying the equity factors gaining momentum in the current market environment.

FCA boss warns against scammers using AI for financial fraud

The rise of generative pre-trained transformers (GPT), including sophisticated language models like ChatGPT, ushers in a new era due to their advanced language understanding capabilities.

This underscores their potential to interpret market behaviour and disseminate information. For instance, two researchers from the University of California demonstrated that incorporating advanced language models like ChatGPT for sentiment analysis yielded better results than traditional machine learning models for short horizons, such as one day.

ChatGPT exhibited enhanced accuracy in predicting market trends based on company news headlines, thanks to its nuanced language understanding. This was particularly evident for smaller stocks and firms with negative news, where the model showed reliable daily sentiment scores.

However, such models alone cannot determine what constitutes a good long-term investment. Why is that?

Financial markets do not follow physical rules

Financial markets are not static systems governed by unchanging rules, but highly adaptive networks driven by human behaviors, which can sometimes be irrational.

This aligns with the argument I made in my previous *Investment Week* column, where I shared my belief that financial markets are constantly in flux and operate as evolving ecosystems with interdependencies.

In his 2004 paper on the Adaptive Markets Hypothesis, financial professor Andrew Lo aptly described the behaviour of financial markets. He insisted that market movements are more governed by the laws of biology than physics. Although investors are primarily rational, they can overreact during periods of extreme volatility.

However, due to the potential rewards, financial markets "learn" as investors discover what works over time and adapt their behaviour, thereby influencing the overall market's behaviour.

Many domains where machine-learning algorithms excel in static systems with constant outcomes. Financial markets present a different challenge due to their non-static dynamic nature.

The applicability of historical data for training algorithms need to be constantly be reconsidered, as the evolving features of financial markets require models to adapt and evolve as well. This implies that models aiming to predict financial markets can sometimes be inaccurate as they need to keep up with the ever-changing nature of the markets.

While GPT models continue to advance in sophistication, the importance of human insight remains crucial. Most current financial models, as well as ChatGPT, primarily rely on backward-looking data and attempt to establish correlations between past information and future outcomes. However, investment expertise also demands a forward-looking intuition that goes beyond historical patterns.

Therefore, a combination of AI capabilities and human judgment is necessary to navigate the complexities of financial markets and make informed investment decisions.

In recent years, investors have faced the emergence of new risks that had to be taken into account when making asset allocation decisions. Geopolitical tensions between the US and China, the Covid-19 crisis, the war in Ukraine, and the climate crisis are just a few examples of these risks that investors had to assess and integrate into their investment strategies.

To address these risks, investors came up with new measures to complement their investment analysis, such as trade interdependencies between countries, the contagion rate of the pandemic, the impact of the Ukraine war on a country's energy mix, or the greenhouse gas emissions of companies committed to a net-zero trajectory.

No one-size-fits-all answer

Investment management is a journey of understanding, adaptation, and co-evolution with technology, not a search for a single 'Golden Formula'. Investors who balance AI capabilities with human intuition stand to benefit from models like GPT.

It's not a zero-sum game but an opportunity for AI to enhance human efficiency while human understanding shapes AI's development. Interestingly, ChatGPT agrees with my analysis. When I asked him for investment advice, the AI responded: "I'm sorry, I can't provide financial advice." Deciphering investment complexities and life's meaning requires more than a formula or reliance on AI alone.

Fiona Frick is managing partner of Circe Invest

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