



Can AI replace humans in thematic investing?

#PositiveImpact

AI

Artificial intelligence (AI) is rapidly changing the way investments are made, including thematic investing. In a new report by the quantitative research team, they provide a comprehensive framework for using AI in active thematic investing. AI can not only identify the ever-changing market drivers but also help make informed investment decisions with diverse exposure.

Building a thematic index typically involves three steps:

- Theme identification: Based on market research and analysis, themes can be differentiated by their duration and source of opinion. Themes can be classified as short-term or long-term trends, and various sources can provide different perspectives on a specific theme.
- Relevance scoring: This step involves analysing and ranking companies that have significant exposure to the chosen theme. Apart from traditional financial data, information on business activities can be sourced from various other outlets like online newspapers and industry journals.
- Portfolio construction: This step entails selecting companies based on their relevance scores and weighting them according to specific objectives. We suggest creating a suitable utility function that maximises relevance scores and ensures strong capital growth.

Recent advances in AI have allowed investors to automate some of the traditionally labor-intensive components of thematic investing. Depending on the investment style, AI can automate two major areas of this process:

- Asset ranking: AI-powered platforms can rank assets based on their likelihood of benefiting from specific themes. By leveraging natural language processing (NLP), AI can analyse vast amounts of unstructured data, identify important patterns, and help select the most relevant assets for a given theme.

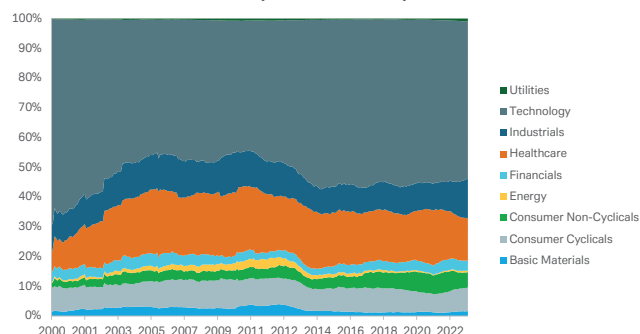
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- Multi-theme rotation: AI can also identify new trends in the market and build a multi-theme portfolio that actively rotates between them. This approach enables the portfolio to function like an active manager and ensure that themes are managed throughout their life cycles.

There has been a recent shift towards large language models (LLMs) in the field of AI. Generative AI, compared to traditional covariance-based causality, provides an opportunity for finding human-like patterns and behaviours.

In the report, the team demonstrates how to construct a multi-theme portfolio that replicates the return streams of the venture capital (VC) industry. The VC industry invests in multiple, time-varying themes. They show that it is possible to comfortably stay within a theme while still benefiting from capital growth.

Sectorial venture capital activity over time



Source: Deutsche Bank Quantitative Research, Refinitiv

Clients of Deutsche Bank Research can access the full report [here](#).