



Using Augmented Intelligence to enhance our investment process

Fullerton Insights
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In our Insights paper: [“Investment opportunities in the age of Artificial Intelligence”](#), we highlighted how a paradigm shift is unfolding in this space along with the investment opportunities that may ensue following the advances taking shape in this field.

As an extension of the paper, we explain in this short supplement how we are approaching this subject at Fullerton, namely our belief that this field contributes to the investment process by complementing our portfolio managers’ skillsets. It provides value-added insights with the elimination of behavioural biases from the observations and analysis of large volumes of data sets to indicate potential trends and signals. These are subsequently used by our portfolio managers as additional inputs for consideration in the decision-making process. That is why our approach to this field is described as “Augmented Intelligence” instead of “Artificial Intelligence” given its role in adding to the wider decision-making process, in place of entirely substituting human discretion.

This supplement goes on to explain a few of the “Augmented Intelligence” tools we are employing at Fullerton to further inform our asset allocation decisions and identify alpha opportunities.



Fullerton’s embrace of Augmented Intelligence

The recognition of the advantages that Augmented Intelligence can bring to our daily workflow has been instrumental in our journey towards incorporating data science techniques to our investment processes since 2020. Building upon this foresight, we took a significant step forward in April 2021 by establishing a dedicated Augmented Intelligence Team. This specialised team has been at the forefront of exploring a wide spectrum of techniques and effectively applying them to alpha identification, asset allocation, and risk management.

Over time, the seamless integration of AI analytical tools has played a pivotal role in refining our scenario analysis and empowering our investment decision process with data-driven insights. The dedication of Fullerton’s AI Team has culminated in the development of a robust suite of AI capabilities across the following key areas and applications.

1) Fullerton’s Macro Regime Indicator – helps investors identify the stage of the business cycle and the near-term risk asset environment (which can inform asset allocation decisions).

Understanding where we are in the current business cycle – i.e a ‘regime assessment’ - plays a critical part of investors’ analysis of future asset returns and hence has a direct influence on asset allocation decisions.

However, human assessments are often susceptible to various cognitive biases, such as the framing effect or selective perception. As fallible beings, we tend to fixate on single dimensions of the economic landscape while unduly overlooking the joint impact of other macro drivers.

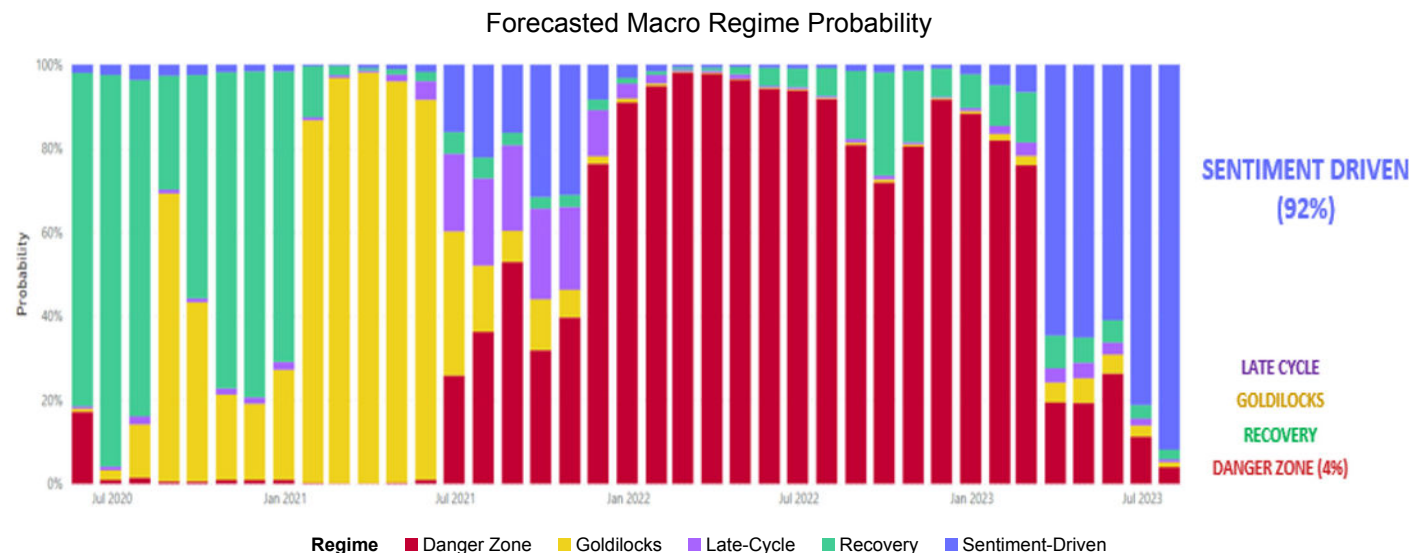
Consequently, a model that consistently considers the status of all key factors to evaluate the macroeconomic regime, in a comprehensive and holistic manner, can offer valuable and unbiased insights for more complete decision-making. The AI Team developed Fullerton’s Investment Regime Indicator to provide an assessment of the current stage of the business cycle and its implications for investors. Our Regime Indicator reading is regularly published in Fullerton’s Quarterly Investment Views – see: <https://www.fullertonfund.com/fullerton-insights/>

From Fullerton’s proprietary indicators of the four key macroeconomic factors that drive investment returns – i.e growth, inflation, liquidity, and risk appetite - our multi-step machine-learning model takes them through a clustering framework. The model output then defines and identifies key regimes, namely a) Danger Zone, b) Goldilocks, c) Late-Cycle, d) Recovery, and e) Sentiment-Driven.

These regimes can have very different implications for risk asset performance, from favourable (i.e Recovery, Sentiment Driven, and Goldilocks) to stressful (Danger Zone). Much of 2022’s stagflation experience, where both equities and bond returns were falling, was a classic ‘Danger Zone’ environment.

The latest signal from Fullerton’s Macro Regime Indicator suggests that the global investment environment has transitioned into a ‘Sentiment Driven’ backdrop. This can be very positive for risk asset performance, across both equities and bonds, as investors’ risk appetite gathers momentum and as fixed-income interest rates potentially offer attractive income streams (see Figure 1).

Figure 1: Fullerton’s Investment Environment Regime Indicator



Source: Fullerton, July 2023. The information presented in the chart above is calculated based on Fullerton’s internal methodology and is subject to change.

2) Sentiment Analysis on Corporate Transcripts

To bolster Fullerton’s equity research and enhance alpha identification, our AI Team has developed a Sentiment Analysis Dashboard that analyses corporate transcripts¹. The dashboard helps Portfolio Managers (PM) monitor single name stocks using our in-house Natural Language Processing (NLP) model.

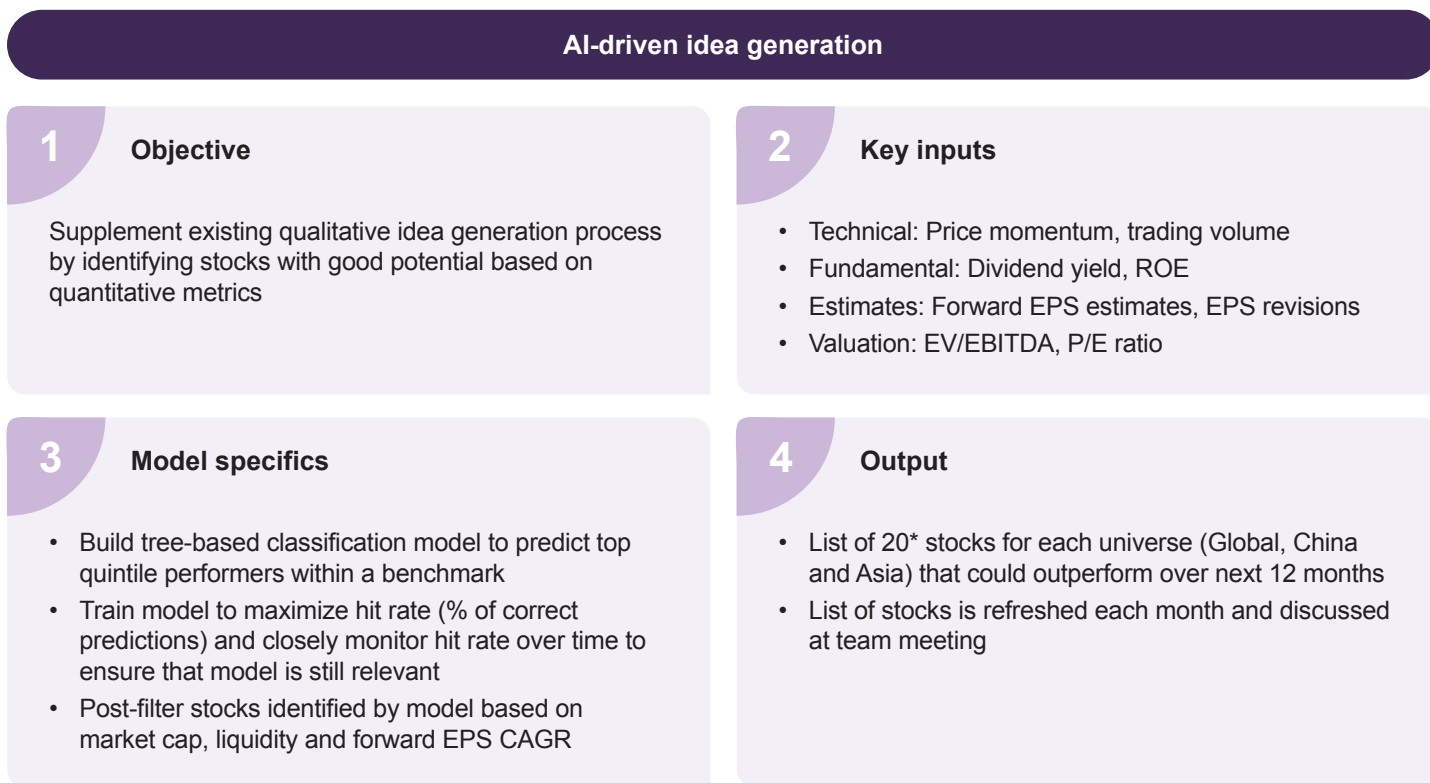
This tool allows us to identify stocks where corporate announcements fit with our investment views, as well as potential outliers or laggards - without human bias or ad hoc judgments. The model can present an overall sentiment score for any corporate transcript, with outputs ranging from positive to negative. Where the

model excels is it can give leading information, driven by a ‘hard-data’ sentiment score, that may impact a company’s share price over time.

3) AI-Driven Idea Generation

To enhance our identification process for investment opportunities, a machine-learning overlay can be a very useful ingredient. This is because it can complement a qualitative idea generation process by identifying stocks with strong numerical fundamentals. Figure 2 provides a stylised illustration of how an AI-driven idea generation framework can work - with its key inputs and accompanying outputs that can support portfolio managers and an investment research team.

Figure 2: Fullerton’s AI-driven idea generation process



*Number of stocks may be subject to change
 Source: Fullerton Fund Management, August 2023

1. Corporate Transcripts consist of Earnings Calls, Investor and Shareholder Meetings, Conference Presentations, etc

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