



For marketing purposes
For qualified investors

AI and Portfolio Management

UBS Asset Management

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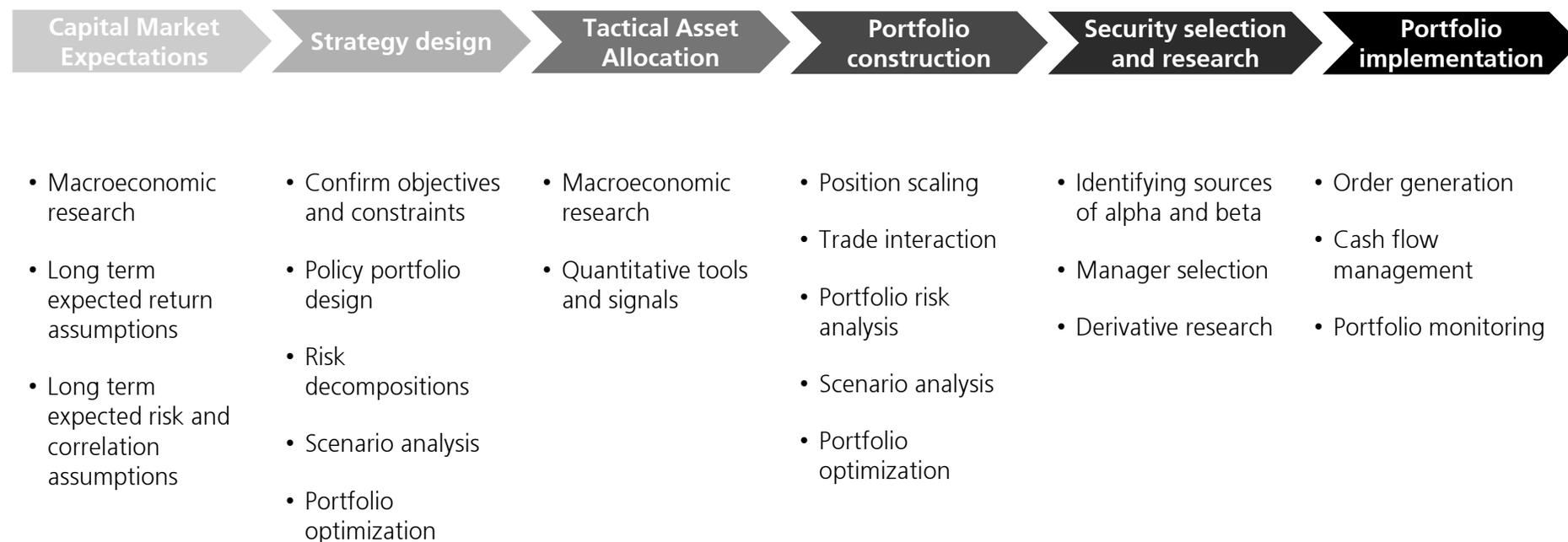
Lecturer University of Zurich & University of St. Gallen

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14 October 2025

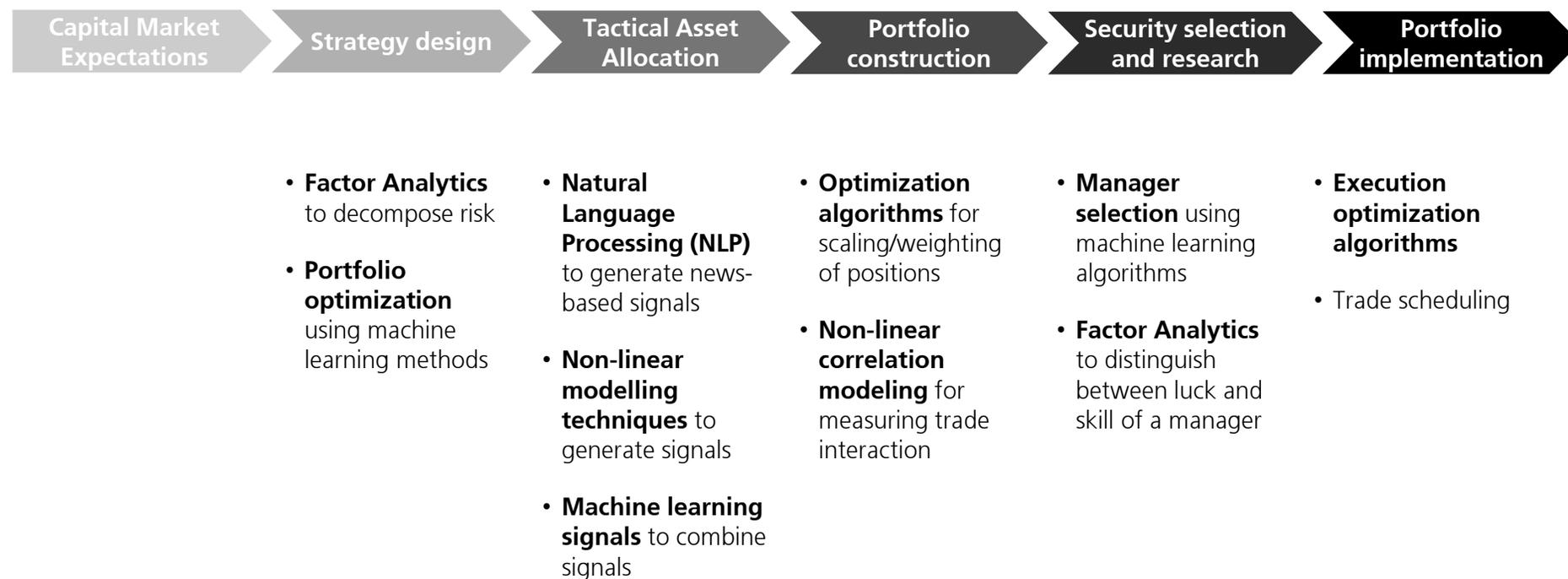
The multi-asset investment process



Note: UBS Asset Management, for illustrative purposes only

The multi-asset investment process

And where UBS integrates AI along the value chain



AI integrated along (nearly) the entire value chain

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The multi-asset investment process

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- **Factor Analytics**
to decompose risk

Use Case: Factor Analytics (1/2)

How machine learning can support strategy design, by decomposing risk and return components



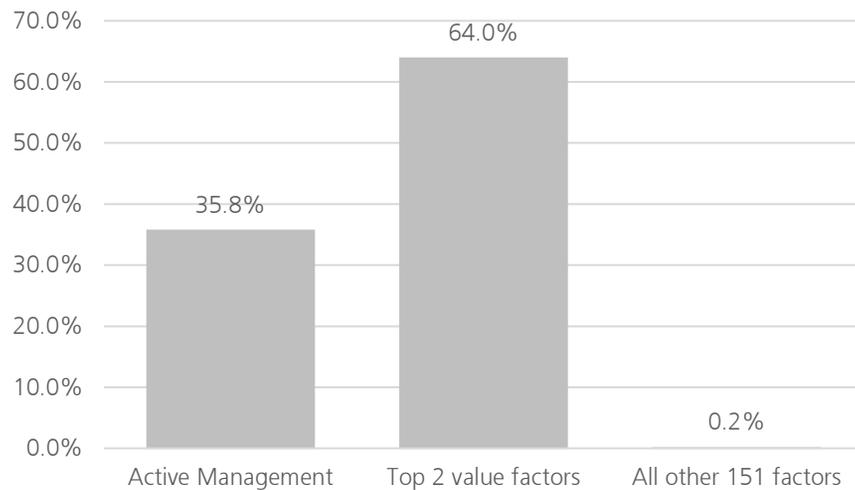
Machine learning algorithms help to

- **Identify** a portfolio's most important risk and return drivers
- Apply **pattern recognition** that is difficult/impossible to detect for humans and more traditional finance models
- **Cross-check** if the portfolio has been managed based on the agreed investment philosophy with the client
- **Crunch** a lot of **data**: we take 153 long short equity factors over 40 years

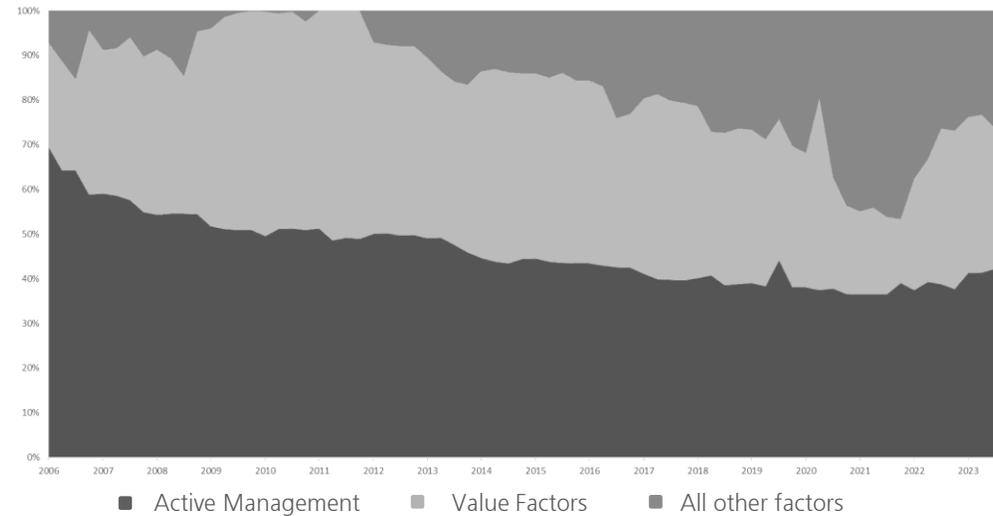
Use Case: Factor Analytics (2/2)



Example¹ of a ML-based risk-return decomposition of an institutional mandate



Sources: Bloomberg, UBS Asset Management – Partnership Solutions, Analytics & Quant Solutions, Data from Jan 1985 to Dec 2023



Sources: Bloomberg, UBS Asset Management – Partnership Solutions, Analytics & Quant Solutions, data from Jan 2006 to Dec 2023

- The most important performance drivers are **value factors** and **active management**
- Among the value factors, **book-to-market** is the most important active performance driver

- The most important systematic risk drivers are **value factors** and **active management**
- The value factors contribute 20% - 50% to the active risk of the portfolio over its history



Notes: 1) This is an illustrative example based on a tailored institutional client mandate
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Tactical asset allocation (TAA)

Systematizing the multi-asset investment process

There are patterns to how asset classes behave during a cycle.

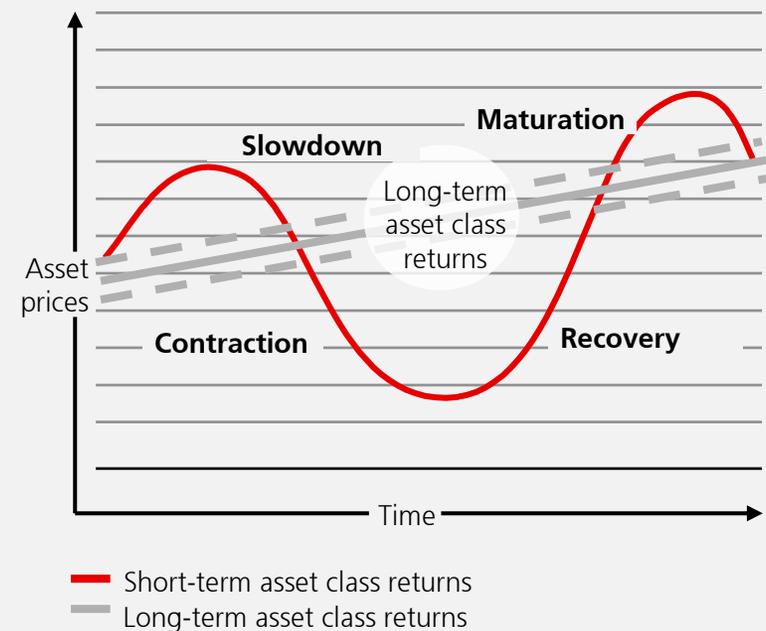
But narratives can stretch too far, leading to mispricings.

By using 3 pillars of analysis,

1. **Macro** – capturing the state and dynamics of the macroeconomy
2. **Fundamental** – valuation, carry, market structure
3. **Behavioural** – news sentiment, trends and risk aversion

We extract alpha from markets through a systematization of our tried and tested investment philosophy in UBS AM Multi Asset.

The importance of AI-based methods plays an increasing role in this pursuit.



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The multi-asset investment process

AI example use case for today



- **Natural Language Processing (NLP)**
to generate news-based signals



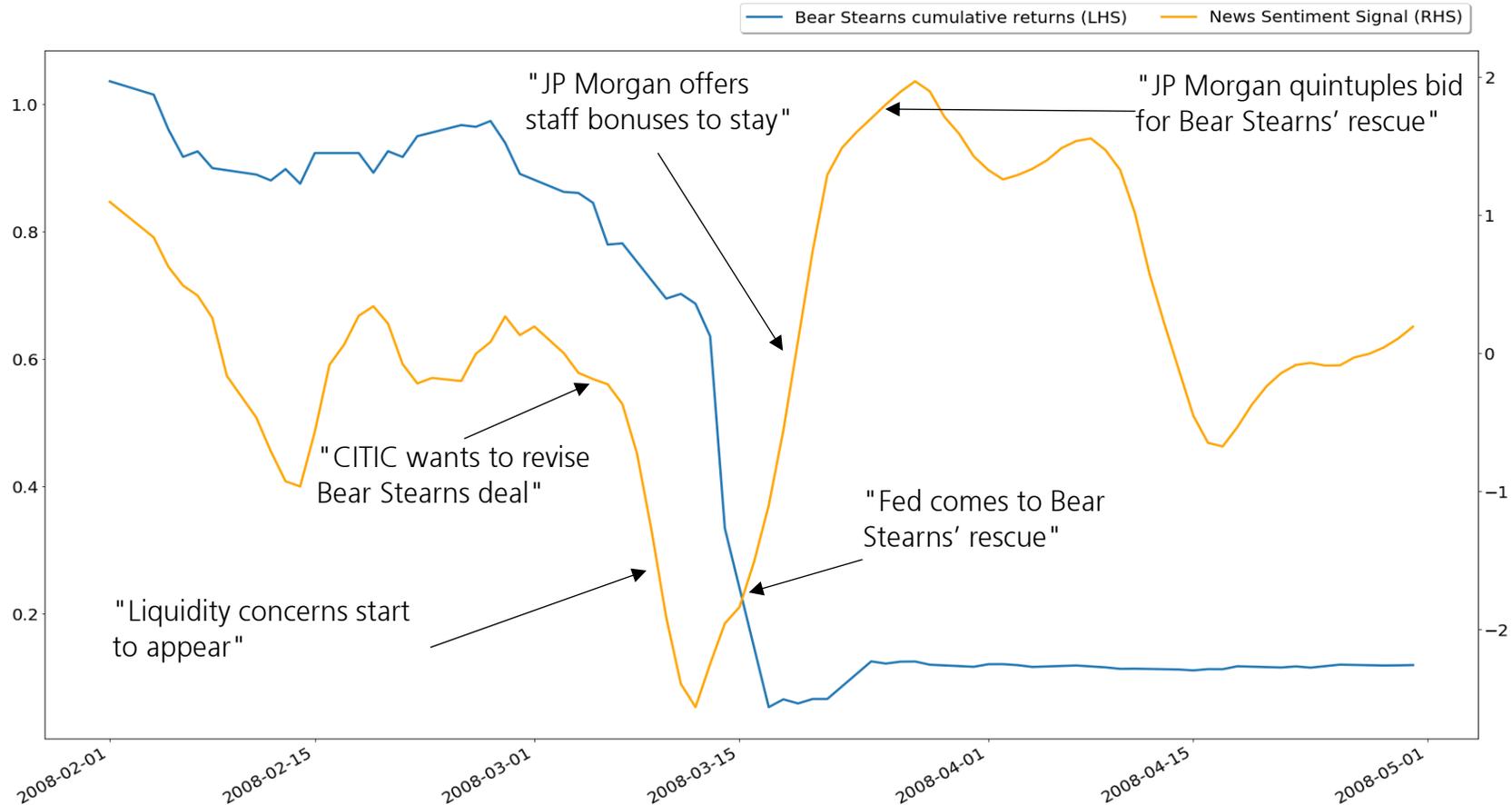
AI integrated along (nearly) the entire value chain

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Use Case: News-based equity signals



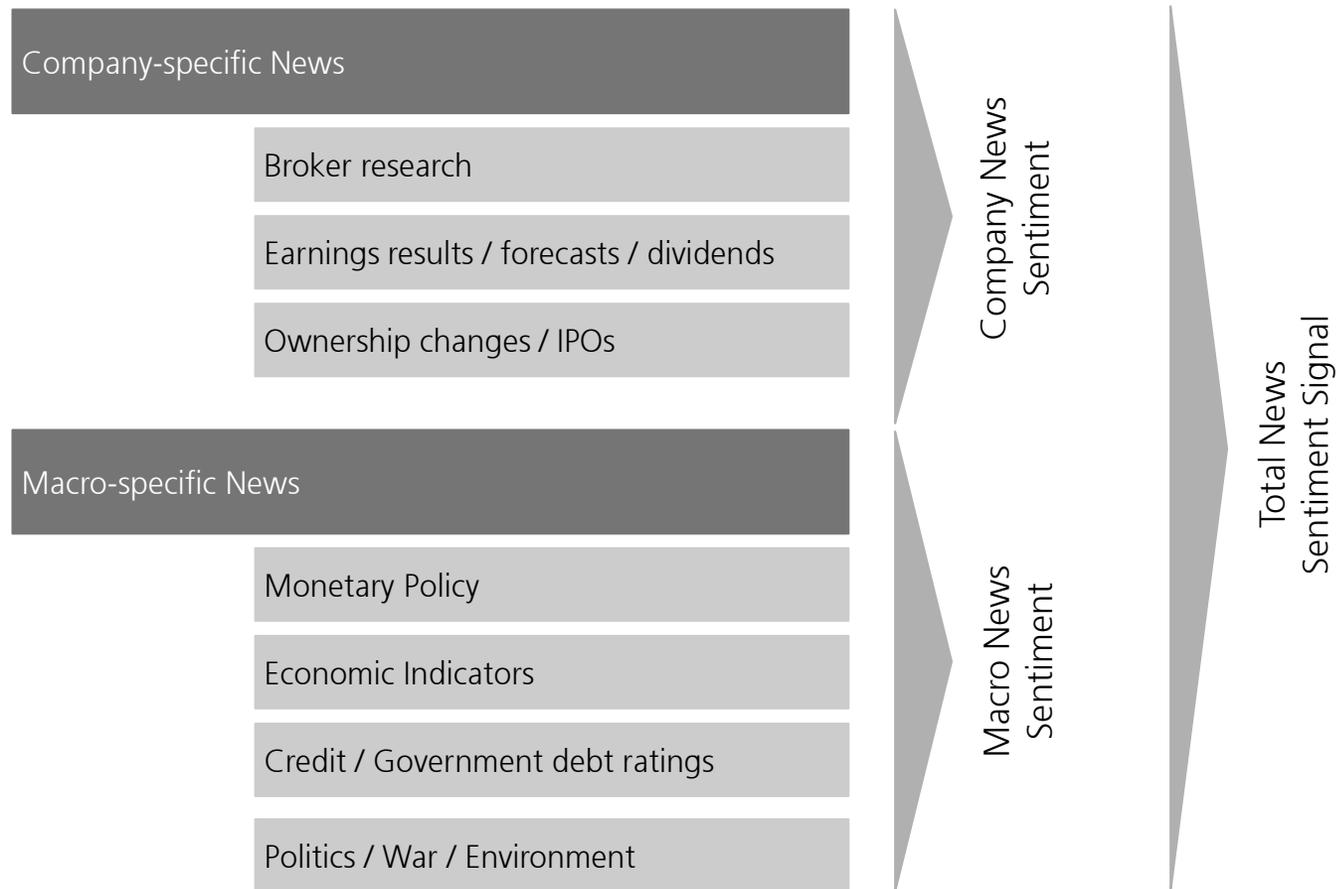
Natural Language Processing (NLP) applied to stock performance



Use Case: News-based equity signals



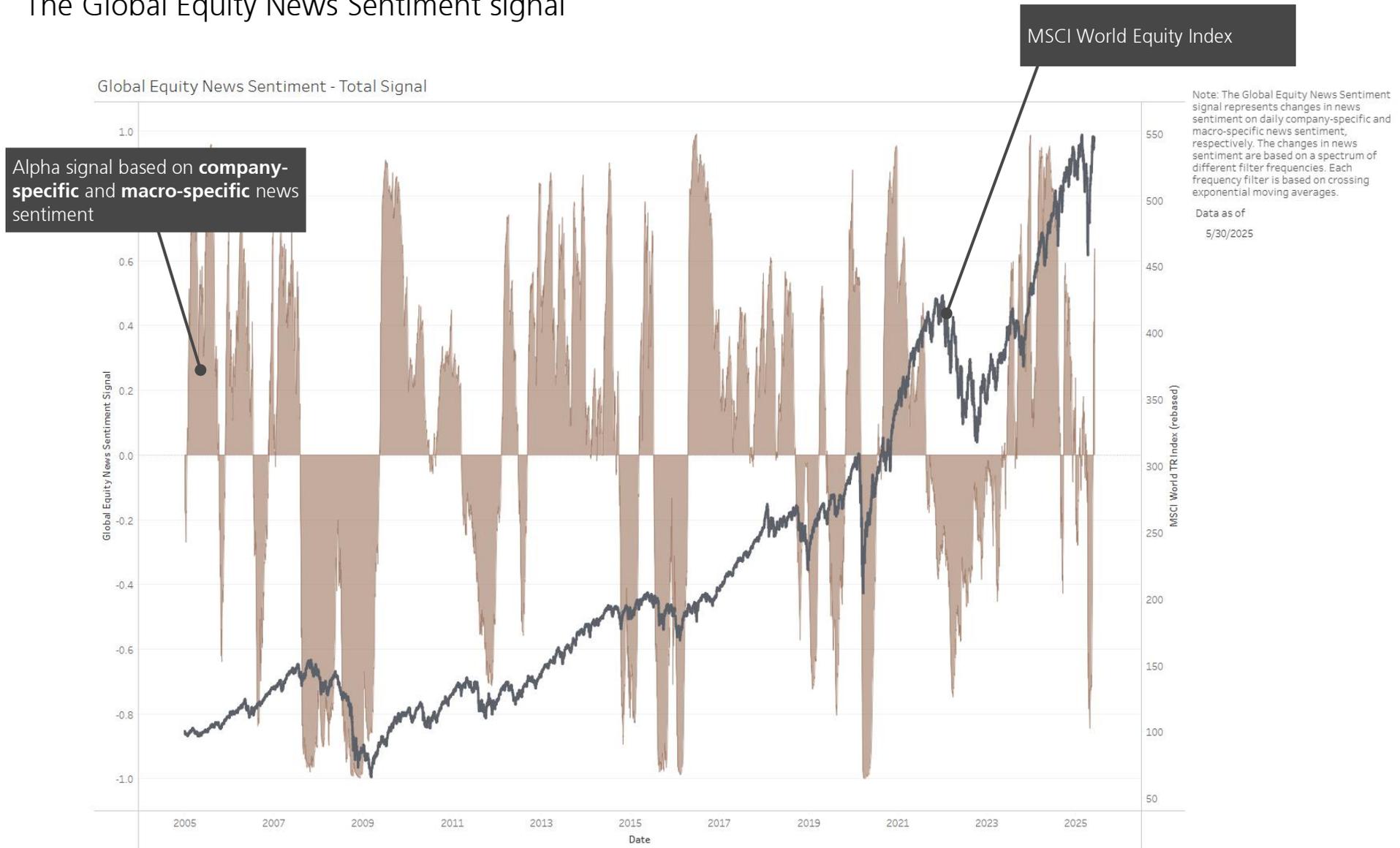
Top-down and bottom-up news to capture subsequent equity market dynamics



Use Case: News-based equity signals



The Global Equity News Sentiment signal



AI use cases for Active Portfolio Management

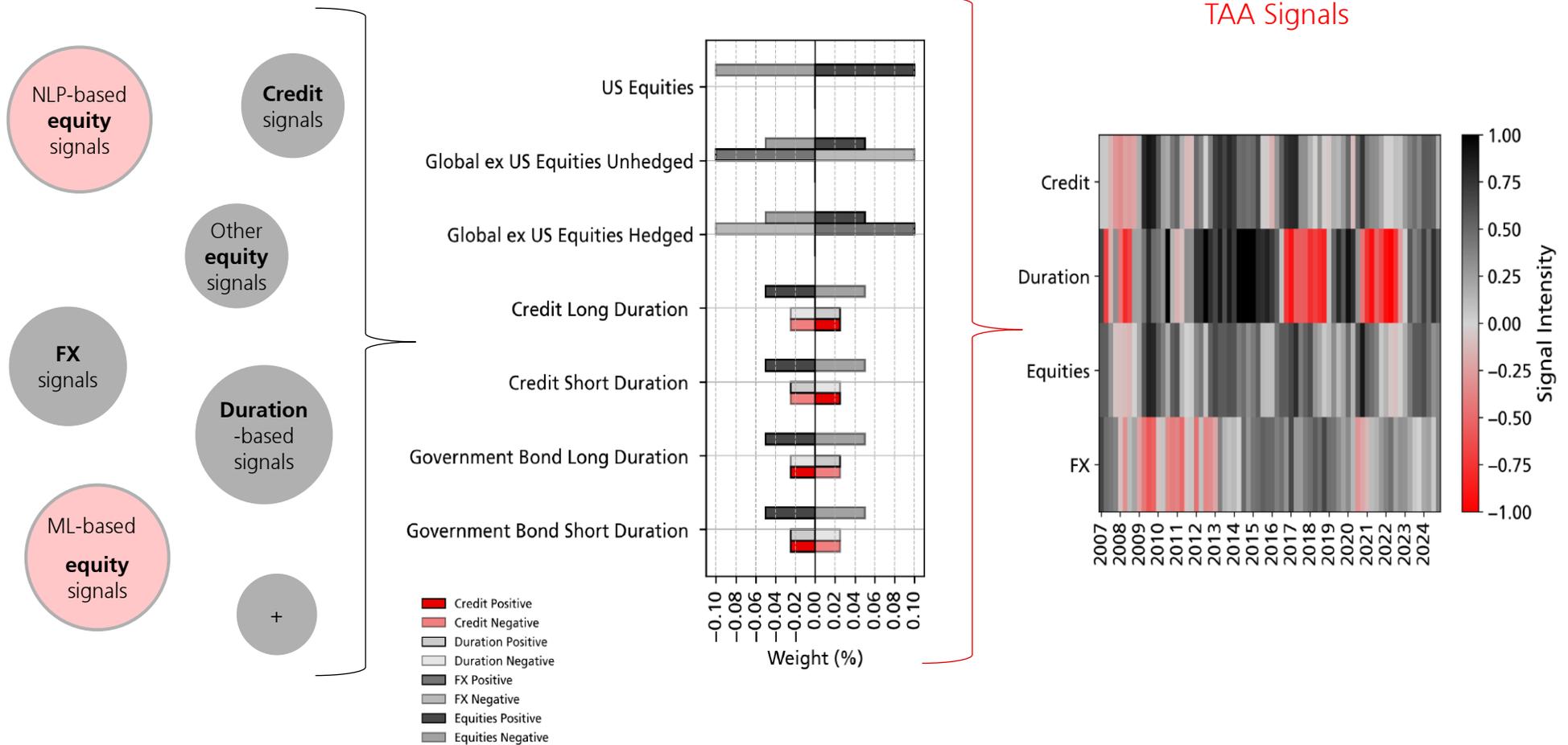


From individual signals to a systematic and AI-powered multi-asset portfolio

AI and Systematic Signals

Signal Translation to TAA

Systematic & AI-powered TAA Signals

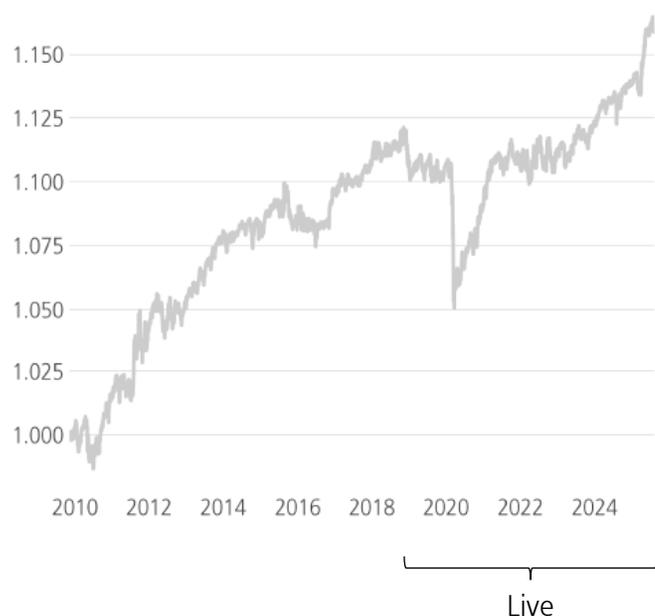


Source: Analytics & Quant Solutions, Partnership Solutions, UBS Asset Management, Refinitiv, Data as of 04 June 2025

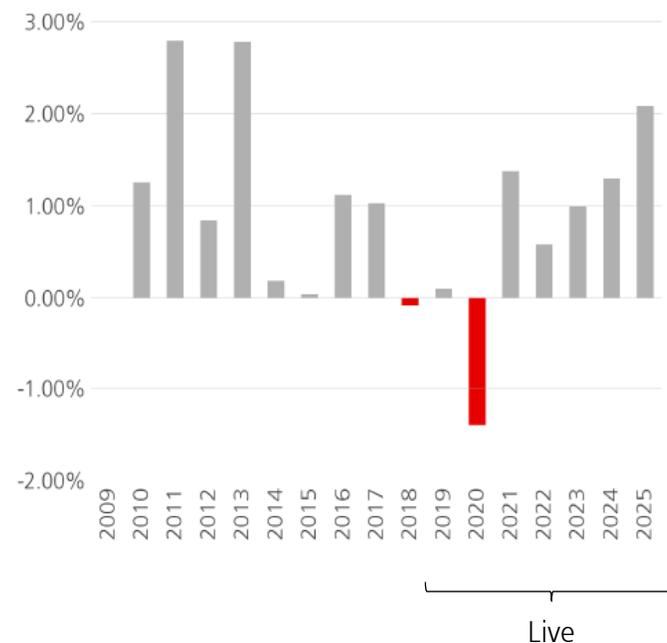
Conclusion: AI in Portfolio Management

Performance overview of an AI-powered multi-asset portfolio

Wealth chart (Excess Returns)



Annual Excess Return



Summary statistics

	1Y	3Y	5Y	10Y	SI
Total Return	17.06%	11.74%	8.96%	8.35%	9.02%
Excess Return	2.90%	1.59%	1.52%	0.64%	0.94%
Volatility	8.08%	8.50%	8.39%	9.13%	8.62%
Tracking Error	1.32%	1.29%	1.43%	1.61%	1.66%
Information Ratio	2.2	1.23	1.06	0.4	0.57
Sharpe Ratio	2.11	1.38	1.07	0.92	1.05
Hit Rate	0.57	0.57	0.56	0.55	0.55

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