



Behavioral Finance: Een vloek of een zegen?

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Behavioral Finance

Overview of today



WHAT IS BEHAVIORAL FINANCE?

THE RATIONAL INVESTOR

FINANCIAL MARKETS

THEORY GONE WILD?

THEORY IN PRACTICE

THE FUTURE OF BEHAVIORAL FINANCE

Efficient Market Hypothesis?



"If we save a rock a year, by the time I'm ready to retire we'll have a lot of rocks."



Efficient Market Hypothesis?

What is behavioral finance?

"Behavioral finance is a field of study that combines psychology and economics to explore how cognitive biases, emotions, and social factors influence the financial decisions of individuals and markets, often leading to deviations from traditional economic theories of rational behavior"

Thinking fast and slow

System 1 & 2

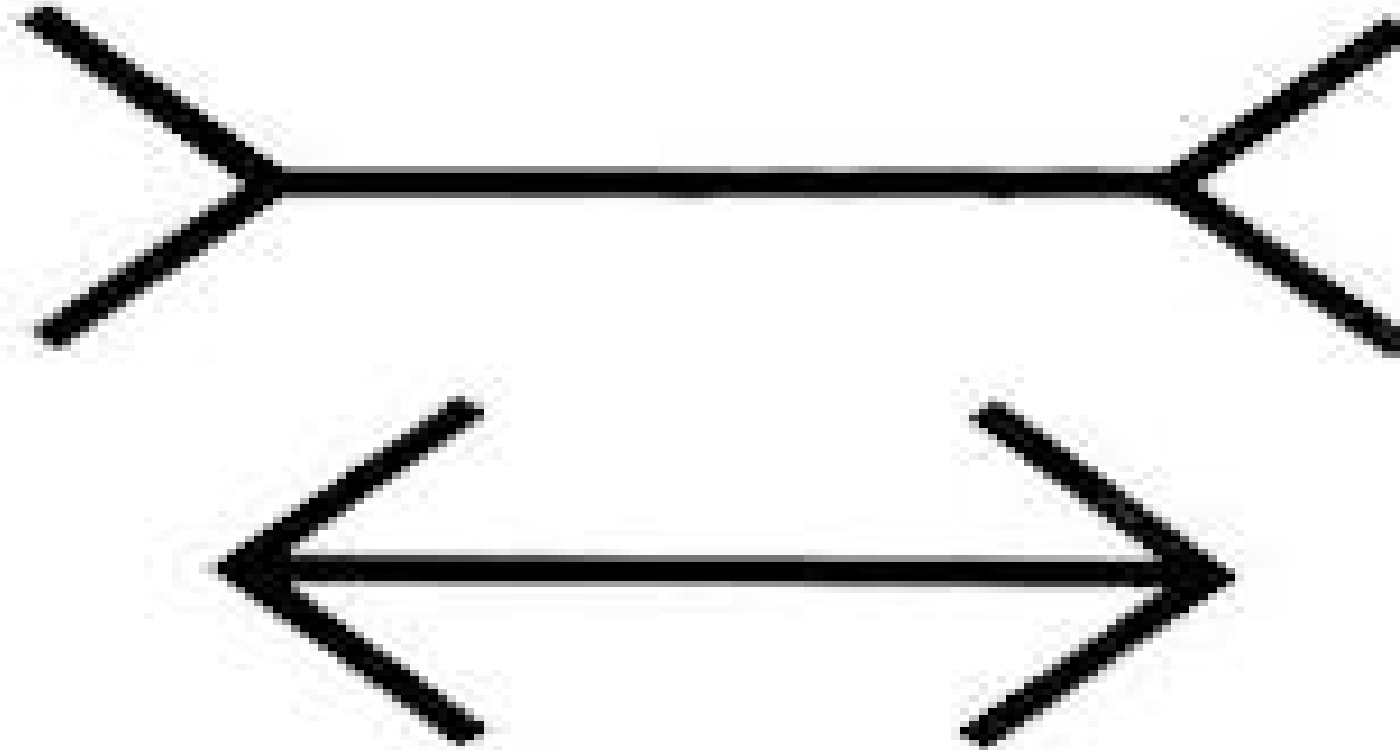


System 1	System 2
operates automatically and quickly, with little or no effort and no sense of control	Require attention, effortful
Examples	Examples
Complete the phrase "Bread and ..."	Fill out a tax form
Compute $2+2=$	Compute $17 \times 24 =$
Drive a car on an empty road	Check validity of a complex logical argument

The Rational Human

An optical illusion

Which line is longer?



The Rational Human

System 1 in action

A simple puzzle. Do not try to solve it but listen to your intuition

A bat and a ball cost \$1.10

The bat costs 1 dollar more than the ball

How much does the ball cost?

A simple puzzle. Do not try to solve it but listen to your intuition

A bat and a ball cost \$1.10

The bat costs 1 dollar more than the ball

How much does the ball cost?

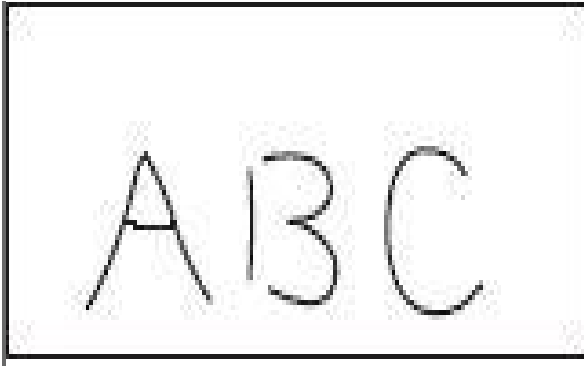
Most people say 10 cents.

This answer is intuitive, appealing, and wrong (correct answer is 5)

The Rational Human

System 1 in action

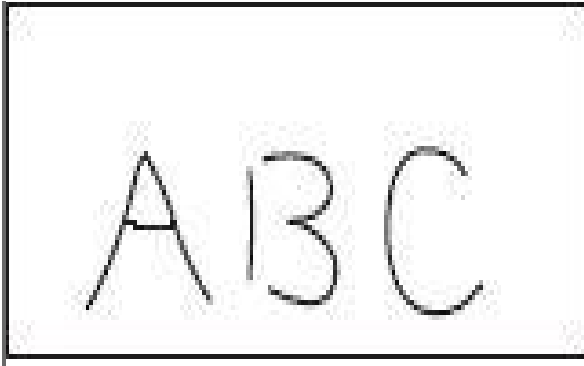
Humans have a bias to believe and confirm



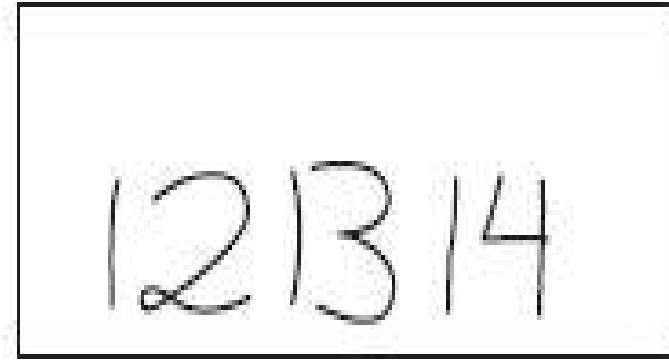
The Rational Human

System 1 in action

Humans have a bias to believe and confirm



A box containing the letters ABC, illustrating a sequence of three items.



A box containing the numbers 1234, illustrating a sequence of four items.

The Rational Human

System 1 in action

Humans have a bias to believe and confirm

“How many animals of each kind did Moses take into the ark?”

The Moses Illusion

“How many animals of each kind did Moses take into the ark?”

None, as it was Noah who did this



Many people are **overconfident**

System 1 is prone to causal intuitions

System 2 costs a lot of energy

Humans in general:

View the world as more simple, predictable, tidy than it really is

Overestimate our own abilities

Exaggerate our ability to forecast

Optimists live longer, are happier, are more popular and healthier

Many people are **overconfident**

Examples of irrational behavior (biases) relevant for investors:

Overconfidence

Confirmation bias

Loss aversion

Herd behavior

Hindsight bias

Anchoring

Availability heuristic

Framing effect

Endowment effect

Financial Markets

4 biases relevant for financial markets

Overconfidence

Overconfidence bias is the tendency for individuals to overestimate their own abilities, knowledge, or predictions, often leading to overly optimistic assessments and underestimation of risks.

Confirmation Bias

Confirmation bias is the tendency to search for, interpret, and remember information that confirms one's preexisting beliefs while ignoring or dismissing contradictory evidence.

Loss Aversion

Loss aversion is the psychological phenomenon where individuals experience losses more intensely than equivalent gains, leading them to prefer avoiding losses over acquiring gains.

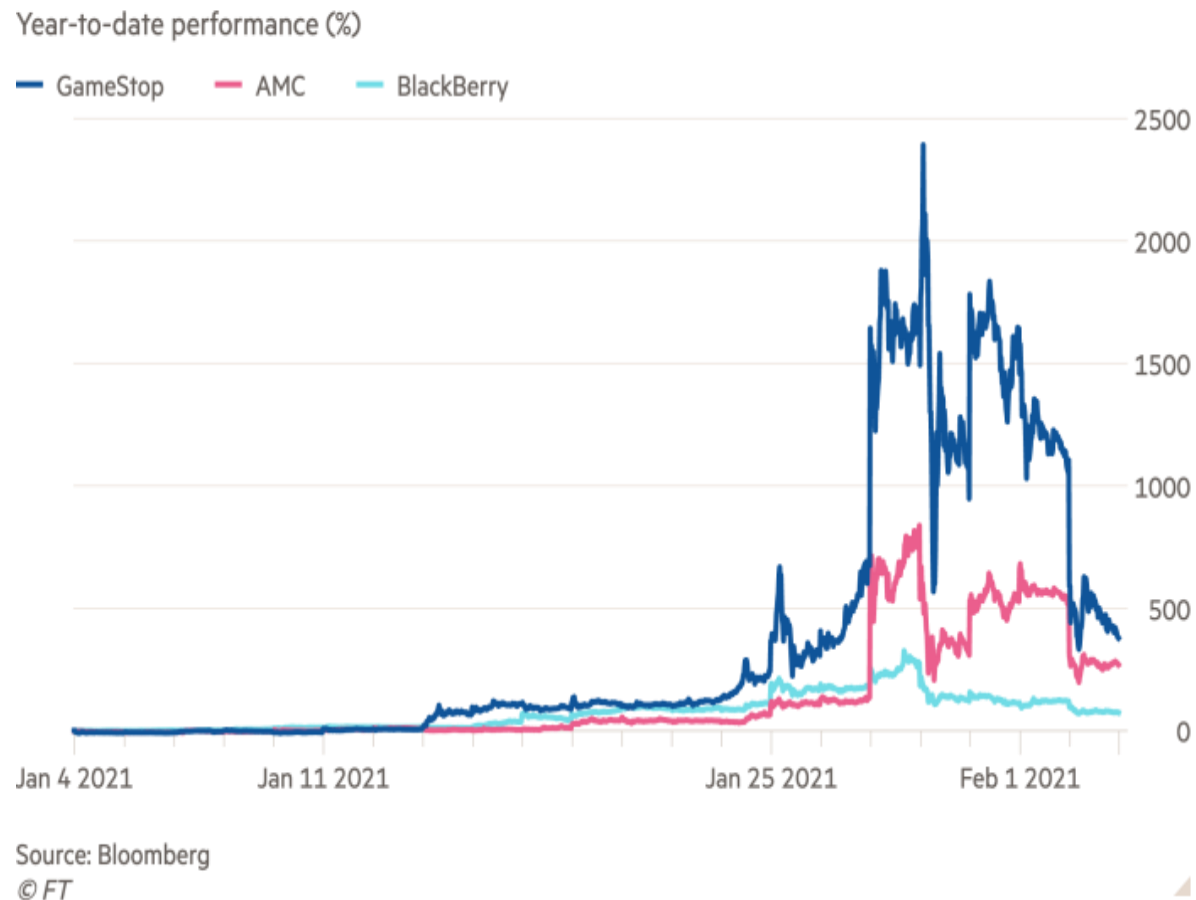
Herd Behavior

Herd behavior is the tendency for individuals to mimic the actions of a larger group, often disregarding their own analysis or instincts, due to the assumption that the collective group is better informed.

Financial Markets

Biases can lead to bad financial decisions that cost money!

Fully efficient?



Common mistakes

Over trading

Emotional decisions: Fear and Greed

Following Star managers/guru's



Solution?

How to overcome biases

Being aware of biases

Education

Learn about biases

Reflect on past decisions



Structured investing plan

Define clear rules

Use checklists



Premortem

What can go wrong?

Identify potential risks

Improve planning

Increase chance of success

**"ANYTHING THAT CAN GO WRONG
WILL GO WRONG"**

MURPHY'S LAW

Behavioral Finance

Overview of today



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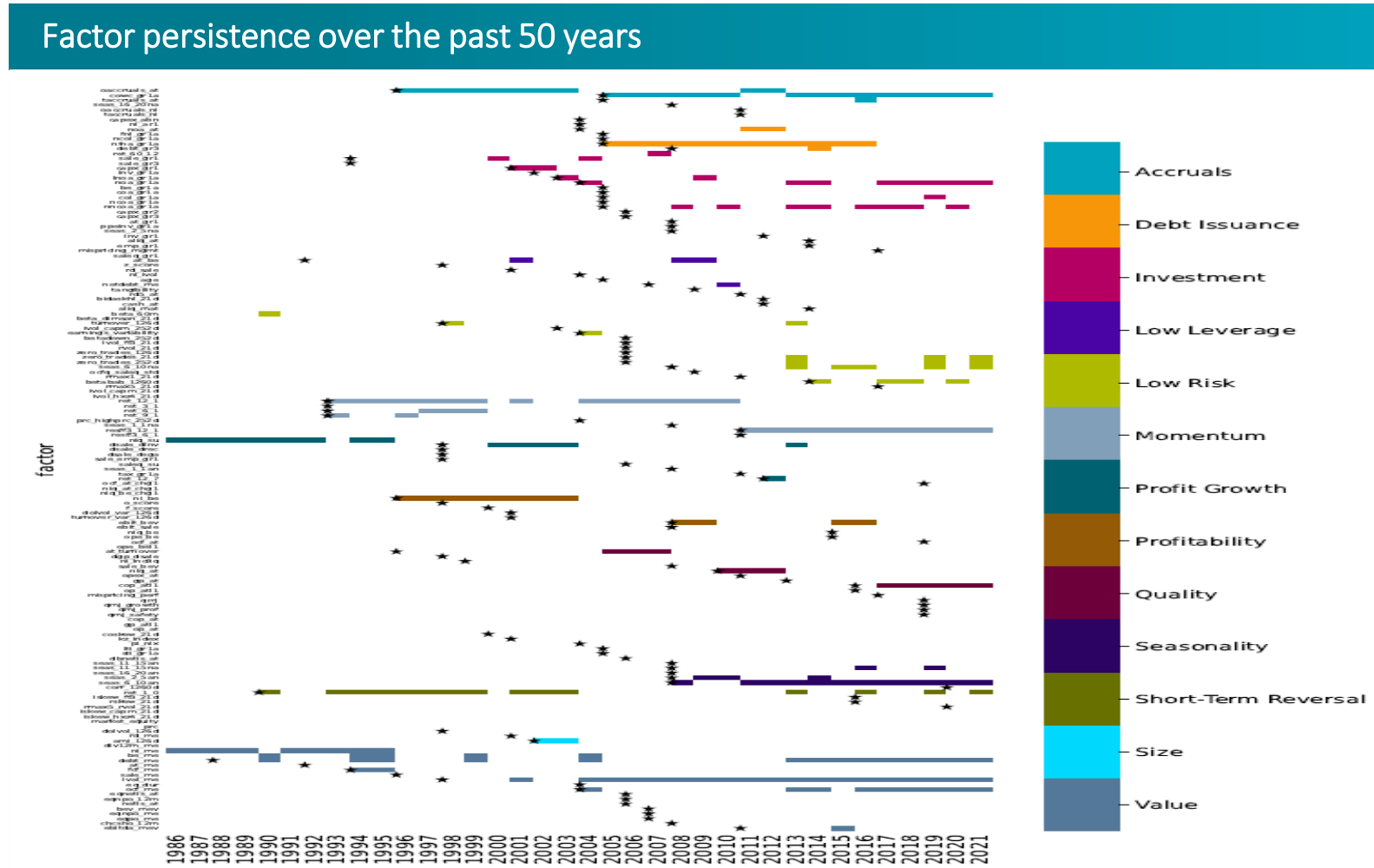
THEORY GONE WILD?

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Factor Zoo (.zip)

How much factors (biases) can we find?



Source: Swade, A., M. Hanauer, H. Lohre & D. Blitz (2024) Factor Zoo (.zip), Journal of Portfolio Management, 50(3), 11-31. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4605976

Adding value from academic research to investors' portfolios

How to navigate the factor zoo

In order to be recognized as proven, factors must be:

- > Performing over multiple market cycles
- > Proven by academic peer-reviewed research
- > Persistent over time and across investment universes
- > Explainable by a clear, compelling economic rationale
- > Executable after all fees and transaction costs

FACTOR

THEORY & DEFINITION

Value



Securities with attractive valuations (low price-to-earnings) tend to outperform.

Momentum



Recent winner (price momentum) tend to outperform.

Low-Volatility



Low-risk assets tend to generate higher risk-adjusted returns.

Value

Investors are over enthusiastic about growth stories

“They illustrated how investors overreacted to past operating results by naively extrapolating historical growth rates. This caused them to erroneously invest in growth stocks based on the belief (narrative) that their operating performance would continue unabated”

“Harvesting the value anomaly can be a painful exercise. The experience of protracted underperformance is likely to shake out any investors with ‘weak hands’, which limits the risk of arbitrage.”



Momentum

Investors tend to herd together and have delayed reactions to new information

“Underreaction can also contribute to the momentum premium. This is based on the conservatism bias that implies investors tend to change their beliefs slowly”

“Momentum is not an easy factor to harvest, the traditional momentum factor typically has a turnover of a several hundred percentage points a year. Clearly, in order to effectively harvest this factor after costs, one needs to apply smart trading strategies”



Low Volatility

Investors tend to pay for lottery like stocks

“Due to the importance of relative performance measures within the investment industry, investors typically choose not to deviate significantly from the benchmark, while they simultaneously aim for higher returns than those delivered by it. This dilemma incentivizes them to prefer more volatile stocks compared to their low volatility peers .”

“Although hedge fund managers have no leverage constraints and their performance is measured in absolute terms, their option-like incentive structure tilts their preference towards riskier stocks”



How to build factor portfolios

Be careful with generic factor definitions

“Factors do not stand alone. Even in targeted single factor approaches, the other proven factors have to be taken into account as well.”

David Blitz, Chief Researcher



FACTOR

OUR APPROACH

OUR VIEW

Value



We buy undervalued securities with high income while avoiding value traps such as low quality, high (distress) risk & negative momentum.

- > Multi-dimensional view of value including cashflows, income, intangibles and decarbonization
- > Incorporate proprietary distress risk model

Momentum



We buy securities that are recognized for doing well while reducing the risk of reversals and avoid overpriced, risky securities of low quality.

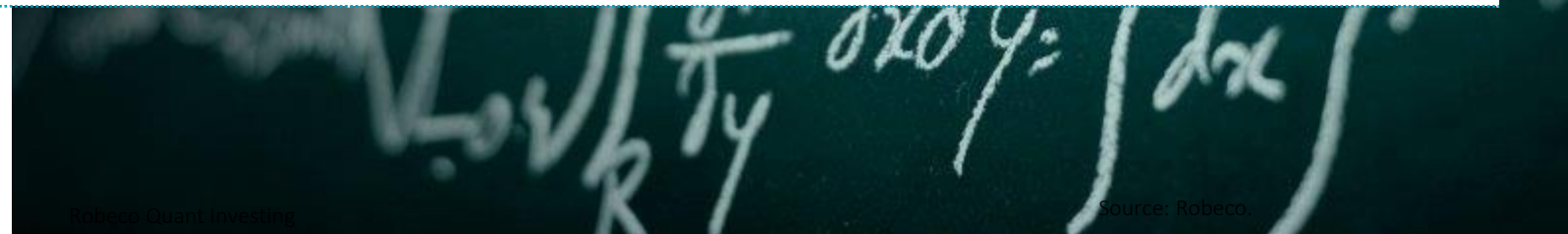
- > Multi-dimensional view of momentum including analyst revisions, credit momentum and news sentiment
- > Focus on security-specific momentum to reduce unrewarded style beta

Low-Risk



We buy low-risk, high income securities while taking other proven factors into account to avoid overpaying, low profitability and weak momentum

- > Multi-dimensional view on risk including forward-looking distress risk measures
- > Focus on downside risk reduction and an attractive up-capture ratio

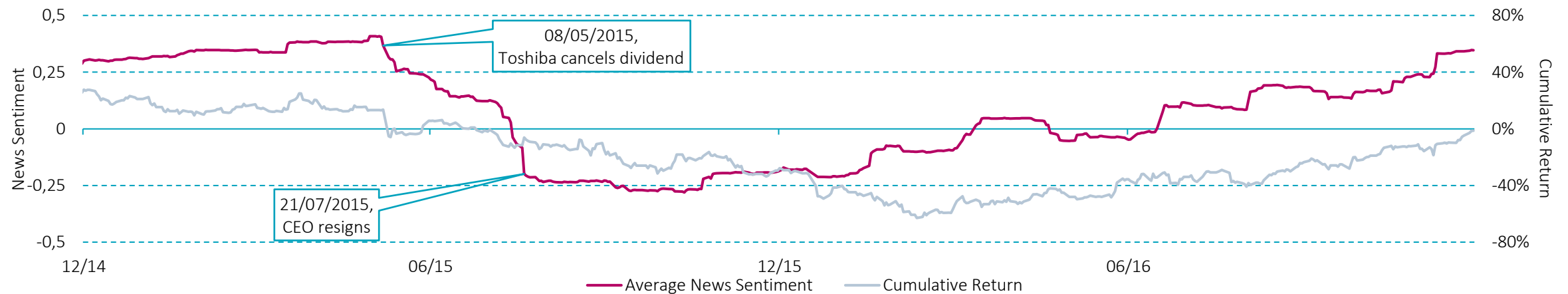


Adding value beyond traditional factors through applied innovation

Using alternative data and machine learning to enhance factors



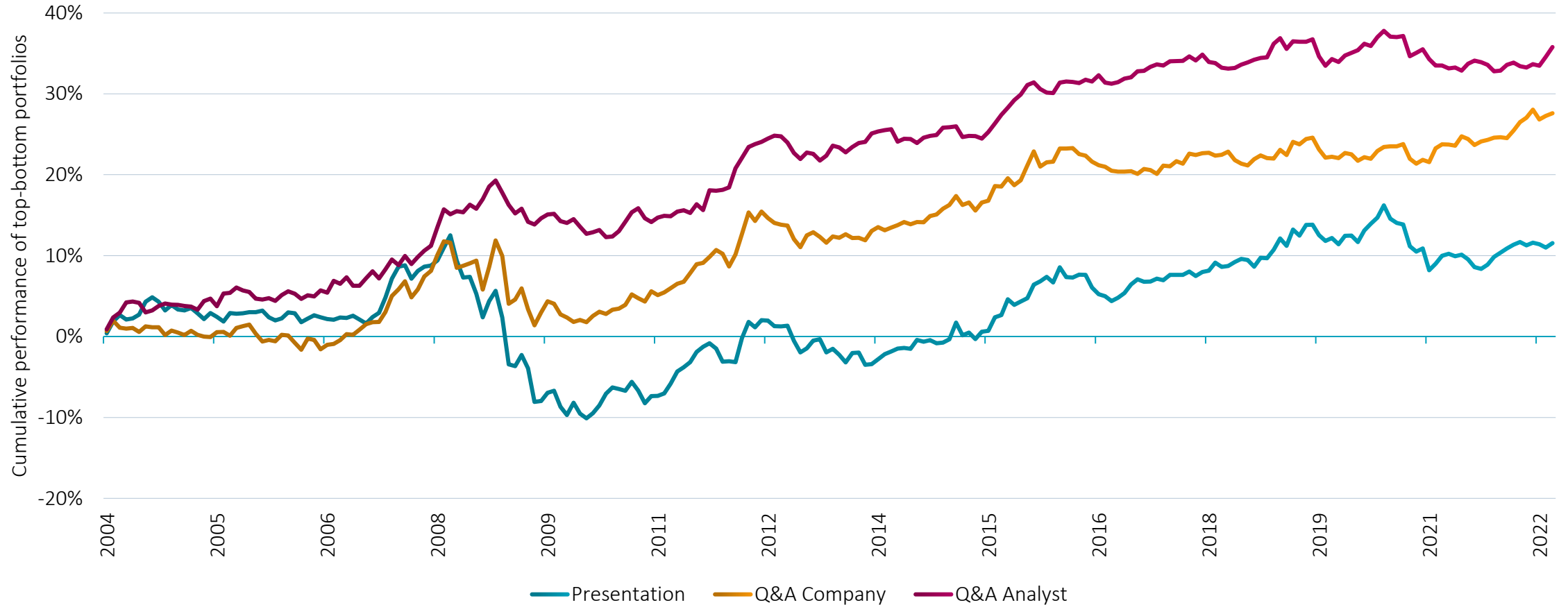
Enhancing Momentum: News Sentiment



Sentiment analysis in audio data

Using Natural language Processing to amplify sentiment from earnings calls

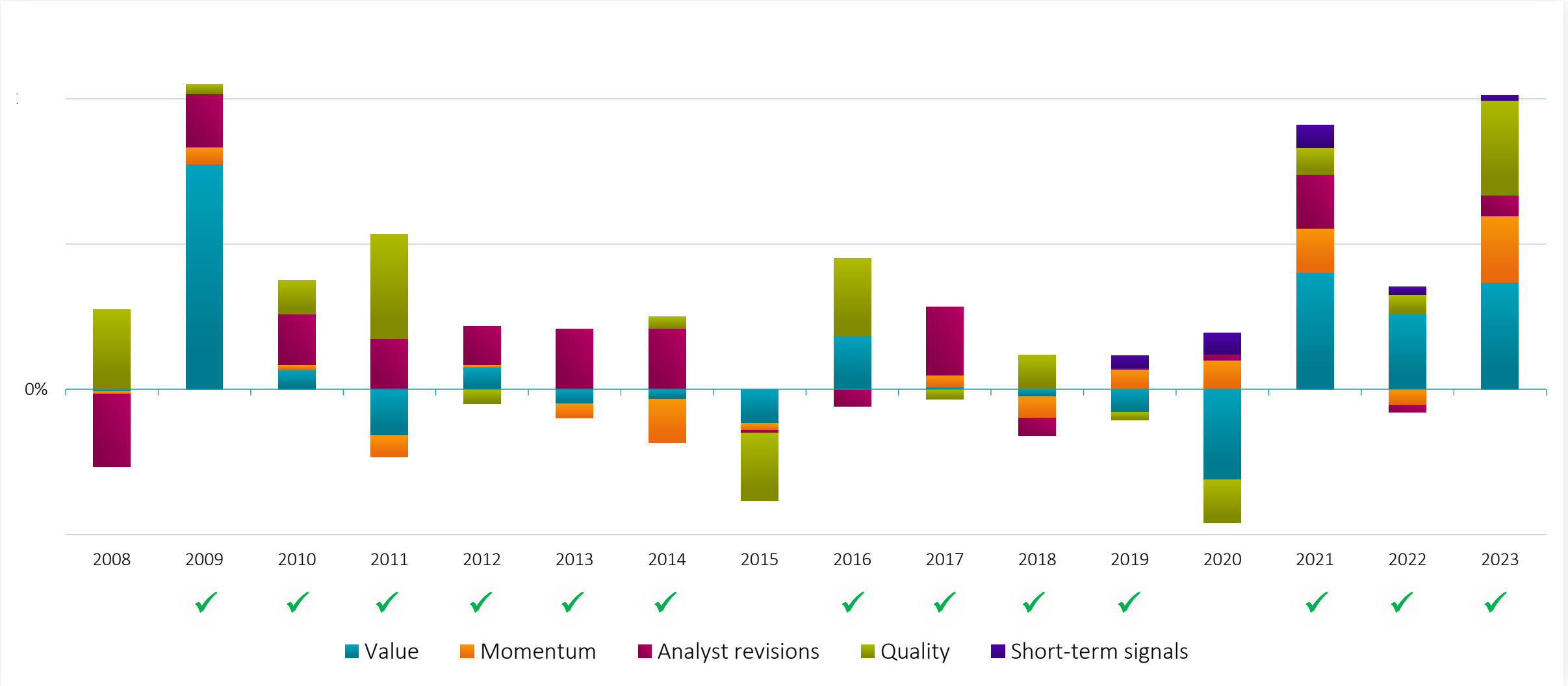
Distinct information from earnings call sections



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Capitalizing on biases in Emerging Markets

Biases are a blessing



Source: Robeco, MSCI. The figure shows excess portfolio returns versus the market index. Excess return is the sum of the allocation effect and the stock selection contribution, excluding cash & other. The excess return is fully attributed to four underlying Robeco factors value, momentum, revisions and quality as explained in the white paper 'Factor Performance Attribution'. April 2016. *Monthly data since inception June-07. gross of fees. based on gross asset value of the Robeco QI Institutional Emerging Markets Enhanced Index Equities Fund. The value of your investments may fluctuate. Benchmark figures include net dividends reinvested. All figures are in EUR. Results obtained in the past are no guarantee for the future.

ROBECO
The Investment Engineers

ROBECO
The Investment Engineers

To enable our clients to achieve their financial and sustainability goals by providing superior investment returns and solutions

Questions?

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The Prospectus has not been approved by the Securities and Exchange Commission which takes no responsibility for its contents. No offer to the public to purchase the Shares will be made in Thailand and the Prospectus is intended to be read by the addressee only and must not be passed to, issued to, or shown to the public generally.

Additional information for investors with residence or seat in the United Arab Emirates

Some Funds referred to in this marketing material have been registered with the UAE Securities and Commodities Authority ("the Authority"). Details of all Registered Funds can be found on the Authority's website. The Authority assumes no liability for the accuracy of the information set out in this material/document, nor for the failure of any persons engaged in the investment Fund in performing their duties and responsibilities.

Additional information for investors with residence or seat in the United Kingdom

Robeco Institutional Asset Management B.V (FRN: 977582) is authorized and regulated by the Financial Conduct Authority.

Additional information for investors with residence or seat in Uruguay

The sale of the Fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. The Fund must not be offered or sold to the public in Uruguay, except under circumstances which do not constitute a public offering or distribution under Uruguayan laws and regulations. The Fund is not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay. The Fund corresponds to investment funds that are not investment funds regulated by Uruguayan law 16,774 dated 27 September 1996, as amended.