

# Analyst Sentiment

From factor to indexation

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## Executive summary

The success of a particular factor in helping to explain an investor's risk and return is often explained by either investors taking on more risk, or by them successfully exploiting a persistent behavioral bias in market dynamics. Analyst sentiment as a factor seeks to efficiently capture and leverage the evolving opinions of a coherent set of market participants. The factor doesn't necessarily rely on analysts being correct, or on exceptional forecasting ability. Instead, its effectiveness depends on there being a predictable drift in forecasts towards the company's final financial results. This drift may stem from the erosion of initial over-optimism or a more rational process of forecast adjustment as evidence mounts.

A number of studies — such as Givoly and Lakonishok (1980), Barberis et al. (1998), Elgers et al. (2001) — have documented a price drift following analyst forecast revisions, even in a market like the U.S. that is considered highly efficient. The underlying rationale varies — some suggest that markets underreact to new information in analyst forecasts, while others argue that price adjustments lag because investor expectations fail to fully incorporate value-relevant signals.

Two years ago, [we discussed analyst sentiment](#) as a systematic factor and demonstrated that between December 1994 and January 2022, revisions in analyst expectations carried a distinct and persistent return premium. This was not explained by other style factors such as value, quality or momentum (Virgaonkar et al. (2023)). Since then, the macro-market landscape has changed materially: real policy rates have risen, geopolitical frictions and trade policy turmoil have caused uncertainty, and exposure to the gen-AI boom has widened valuations and return dispersions. Against this backdrop, we revisit analyst sentiment with two objectives. First, to assess the out-of-sample robustness of the specific analyst-sentiment signal we evaluated in a very different regime. Second, to provide a deeper historical yardstick for investors evaluating the newly launched MSCI Analyst Sentiment Index series.

Our new work confirms that a pure analyst sentiment factor, consistent with its performance over the prior quarter century history, has remained a powerful driver of stock returns even post-February 2022, a period characterized by high interest rates and high volatility. Indeed, analyst sentiment achieved the highest risk-adjusted return among all style factors in the MSCI Global Equity Model for Long-Term Investors (GEMLT) during this out-of-sample period.

A decile-based examination shows that stocks with the highest analyst sentiment scores have consistently outperformed those with the lowest scores. This premium is broad-based and can be effectively captured in long-only implementations. This is illustrated by the MSCI ACWI Analyst Sentiment Index: It outperformed its parent index by 2.1% per year between November 2006 and June 2025.<sup>1</sup> It ranked behind only quality and experienced one of the shallowest and shortest drawdowns among single-factor indexes. Further, the index outperformed its parent index, the MSCI ACWI Index, roughly 95% of all three-year rolling periods, one of the highest hit ratios (frequency of outperformance) across all factor indexes.

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<sup>1</sup> The official index history of the MSCI ACWI Analyst Sentiment Index starts from November 2006.

Despite some conceptual overlap — reflecting their shared behavioral finance underpinnings — analyst sentiment and momentum displayed distinct characteristics throughout the deep history we studied. Analyst sentiment has presented a notably smoother return profile and lower drawdown risks compared to momentum and has, moreover, shown resilience across market cycles. We further found that analyst sentiment could enhance momentum: sorting momentum stocks by analyst sentiment improved stock selection and reduced downside risk over our study period.

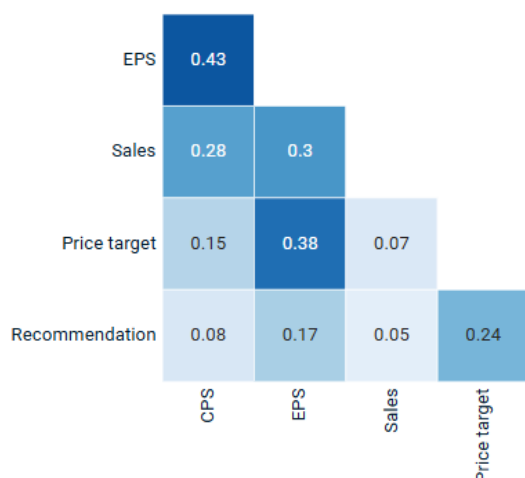
In short, this paper shows that analyst sentiment has remained a valuable and resilient factor. For both institutional and wealth investors, it broadens the roster of tools available within allocation programs, supporting smoother performance, stronger diversification and improved alpha potential.

## Factor intuition, construction and characteristics

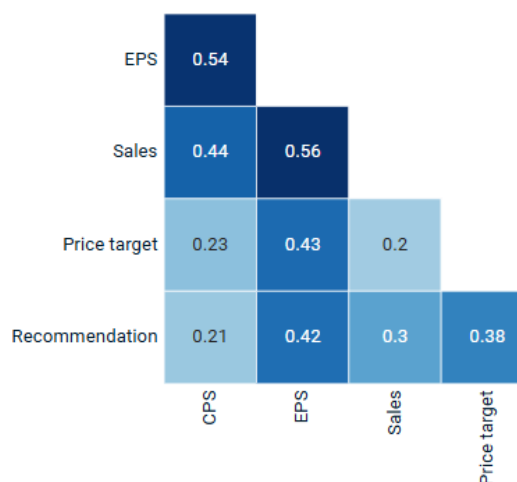
When new information arrives in the market, whether macro or micro, sell-side analysts rarely adjust long-term forecasts in a single step. Instead, they tend to revise estimates incrementally. Prior research (e.g., Edwards et al., 2006) documents serial correlation in these revisions; that is, the direction of an initial change often persists. The analyst sentiment factor is designed to capture this drift. We define the analyst sentiment factor as the equal-weighted composite of standardized changes in five variables: sales, earnings per share (EPS), cash-flow per share (CPS), price targets and buy/sell recommendations.<sup>2</sup> Detailed construction methodology is provided in Appendix 1.

Below we illustrate how the five variables contribute to distinct information. Cross-sectional correlations among the exposures were low, and correlations among their pure returns were likewise modest. Taken together, the variables provided a more comprehensive read on how analyst expectations have evolved than any individual attribute could achieve on its own.

### Average cross-sectional exposure correlation



### Pure-factor return correlation



<sup>2</sup> Consistent with the specification in Virgaonkar et al. (2023).

Period: Dec. 30, 1994, to June 30, 2025. Right chart: Correlations of monthly time-series pure factor returns of analyst sentiment descriptors. Each descriptor was introduced into MSCI GEMLT and pure-factor returns were estimated. We calculated pure-factor returns by running cross-sectional regression of exposures against excess stock returns in the presence of all the factors from MSCI GEMLT.

## Performance review

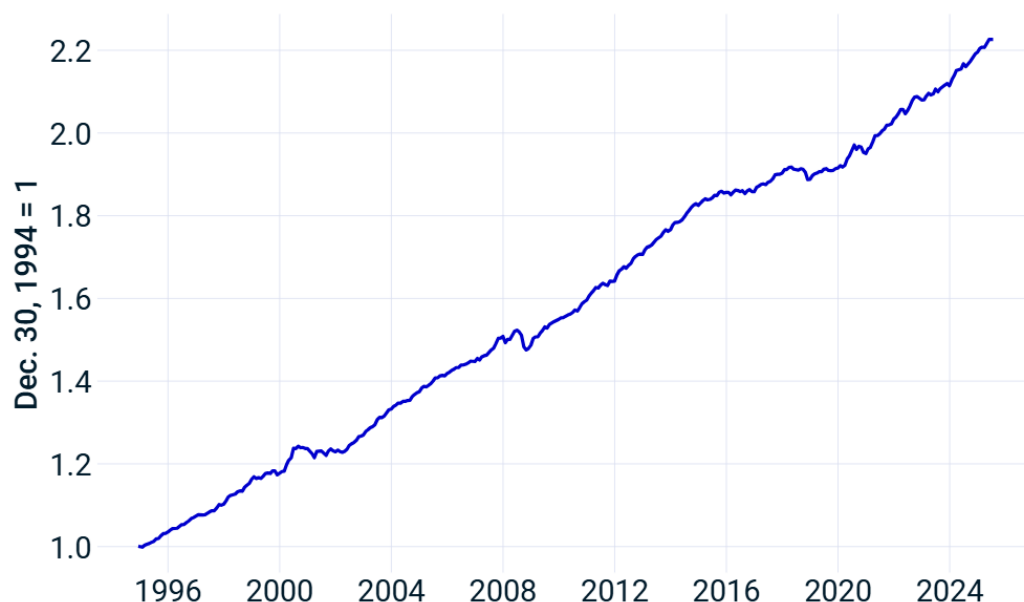
We introduced our analyst sentiment composite factor into MSCI GEMLT and compared its performance relative to the other model style factors over the past 30+ years (December 1994–June 2025). Over this period, analyst sentiment was the second-best performing style factor in terms of annualized returns (followed by momentum), and had the highest risk-adjusted returns. Its behavior in the out-of-sample period (February 2022–June 2025) remained similar. The factor delivered an annualized return of 2.5%, which was the second-best performance following momentum. The result suggests that analyst revisions continued to add incremental information even as rising rates compressed valuation multiples or geopolitical and macro uncertainty dominated market dynamics in the past few years.

### Performance of analyst sentiment compared to GEMLT style factors

Factors	Annualized return	Annualized risk	Return/risk
Beta	0.4%	5.2%	0.08
Book-to-price	1.9%	1.5%	1.23
Dividend yield	0.9%	1.2%	0.77
Earnings quality	1.0%	0.8%	1.24
Earnings variability	-0.4%	1.2%	-0.34
Earnings yield	1.7%	2.0%	0.83
Growth	0.7%	1.1%	0.61
Investment quality	1.0%	0.8%	1.23
Leverage	0.1%	1.1%	0.07
Liquidity	-0.6%	2.3%	-0.24
Long-term reversal	1.0%	1.5%	0.67
Mid capitalization	0.1%	1.3%	0.05
Momentum	2.9%	4.1%	0.71
Profitability	1.2%	1.2%	0.99
Residual volatility	-2.1%	3.2%	-0.66
Size	0.1%	2.3%	0.06
Analyst sentiment	2.7%	1.2%	2.16

Data from Dec. 30, 1994, to June 30, 2025. Analyst-sentiment exposures were not orthogonalized against style factors within MSCI GEMLT. Performance based on the orthogonalized specification is reported in Appendix 2.

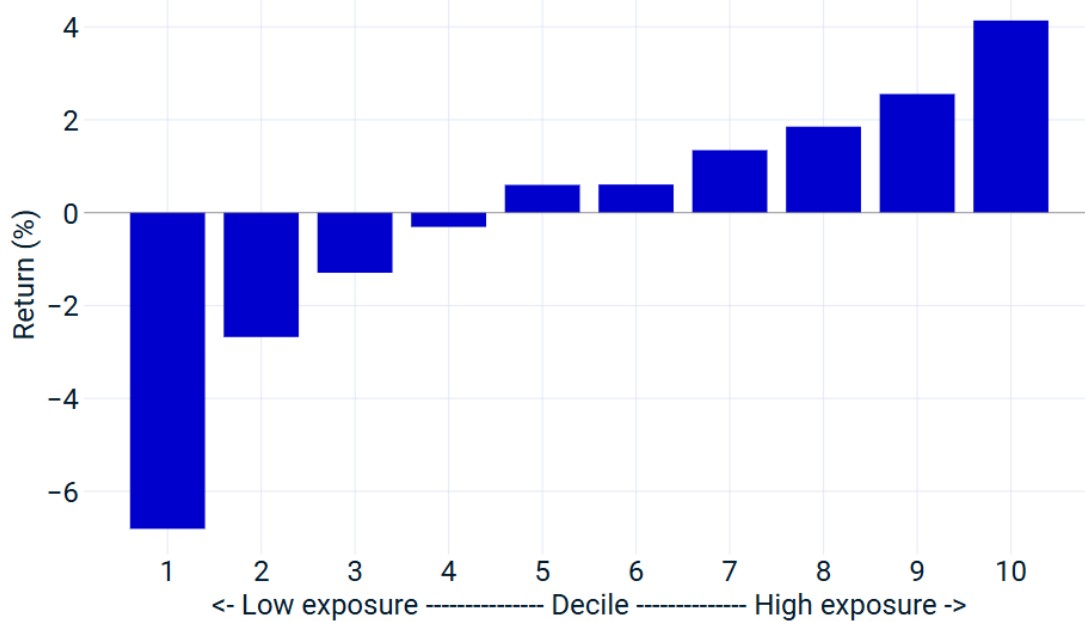
## Long-term performance of the analyst sentiment factor



Data from Dec. 30, 1994, to June 30, 2025. Performance of the pure-factor return of the analyst sentiment factor within MSCI GEMLT.

To investigate the source of that outperformance, we ranked the MSCI ACWI Investable Market Index (IMI) universe each month by analyst sentiment exposure and formed 10 equal-weight portfolios. The decile analysis below shows a clear, almost monotonic return spread. Stocks in the lowest sentiment decile (decile 1) underperformed sharply, while the higher sentiment deciles (7-10) all generated positive excess returns, with decile 10 in particular delivering the largest gains. The pattern confirms that the factor's premium has been broad-based rather than driven by a handful of names and — critically for long-only implementation — the upper-exposure deciles captured a lot of the factor without the contribution of short positions.

### Analyst sentiment exposure-return relationship



Data from Dec. 30, 1994, to June 30, 2025. Annualized average excess returns of decile portfolios over the returns of MSCI GEMLT estimation universe (MSCI ACWI IMI). Stock returns are equally weighted.

## Analyst sentiment versus momentum — complement or substitute?

Momentum and analyst sentiment are often mentioned in the same breath. Both seek to exploit information embedded in price- or forecast-adjustment trends, and both are associated with investor behavior. Yet the mechanisms behind them are distinct. Momentum is backward-looking in its construction, capturing persistence in realized returns, whereas analyst-sentiment is forward-looking, aggregating sell-side earnings forecasts or target-price revisions that seek to anticipate future fundamentals. We test their relationship and determine whether the two convey overlapping or complementary information through a series of empirical tests.

### Cross-sectional alignment

Analyst sentiment has had negligible cross-sectional exposure correlation with most MSCI GEMLT style factors. The lone exception has been momentum, where the average exposure correlation has hovered just above 0.30, shown in the chart below. Correlations were low until the early 2000s, then increased and varied between 0.25 and 0.50, indicating some overlap. During the 2008-09 global financial crisis (GFC), analysts sharply downgraded many of the previously high-momentum winners, driving the exposure correlation toward the lower end of its range. Conversely, in the post-COVID-19 rally of 2020-

21, upward revisions on technology and e-commerce names pushed the correlation to a two-decade high. These swings suggest that analyst revisions have both confirmed and contradicted price trends.

### Analyst sentiment–momentum exposure correlation



Period: Dec. 30, 1994, to June 30, 2025. Based on monthly exposures. Momentum exposures are from MSCI GEMLT.

We show this in a two-way heat-map of constituent weights (below), sorted simultaneously by momentum (rows) and analyst-sentiment (columns) into +/-1, +/- 2, and +/- 3 standard deviation exposure bands. The pattern is dominated by a downward-sloping diagonal: Stocks with the highest (lowest) momentum exposures tended, on average, to carry the highest (lowest) analyst-sentiment scores. However, the fit is not perfect. Only about 35% of the MSCI ACWI IMI universe was found to lie on that main diagonal. The majority occupied off-diagonal cells, confirming that a large share of names were not well aligned between the two factors.

## Analyst sentiment–momentum exposure distribution

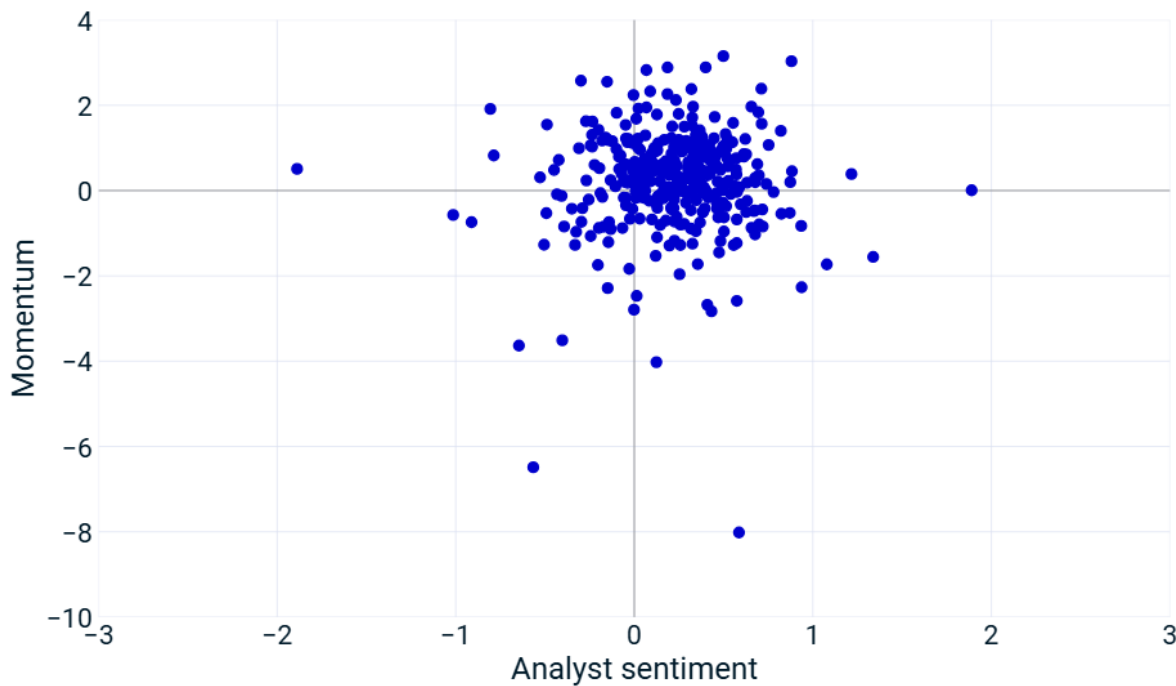


Period: Dec. 30, 1994, to June 30, 2025. Each heat-map cell shows the time-average of the monthly index weight in the MSCI ACWI IMI whose constituents' factor z-score pairs fall into that joint bin.

## Return distributions and crash sensitivity

The return profile of analyst sentiment has been much smoother than that of momentum. During the last 30 years, monthly momentum returns showed high dispersion and pronounced left-tail shocks: -8.0% in April 2009 post the GFC unwind or -6.5% in January 2001 after the Fed's interest rate cut triggered short-term reversal for the decline of dot-com stocks. In contrast, analyst sentiment's worst single-month outcome was -1.9%. These tails translate into very different peak-to-trough drawdowns. Momentum has endured a maximum decline of nearly 20%, whereas analyst sentiment has been limited to just over 3%.

### Analyst sentiment–momentum return distribution



Period: Dec. 30, 1994, to June 30, 2025. Scatter plot of monthly pure-factor returns of momentum and analyst sentiment. Momentum is based on MSCI GEMLT.

### Statistics of analyst sentiment and momentum factors

Statistic	Momentum	Analyst sentiment
Standard deviation	4.1%	1.2%
Skew	-1.8	-0.5
Kurtosis	9.7	4.8
Maximum drawdown	-19.9%	-3.1%

Period: Dec. 30, 1994, to June 30, 2025. Selected statistics of analyst sentiment and MSCI GEMLT momentum factors, based on monthly pure-factor returns.

To check if analyst sentiment complemented momentum, we conducted a layered quintile sort analysis. Stocks were first ranked into momentum quintiles, and subdivided each momentum bucket into analyst-sentiment quintiles. We then calculated the excess return for each momentum-sentiment quintile. Across the full sample, the high-low analyst sentiment spread remained positive in each momentum bucket, indicating that analyst revisions systematically enhanced stock selection even after controlling for price trends. Put differently, pairing momentum with a favorable sentiment screen not only sharpened exposure to the true “winners” but also reduced the severity of momentum drawdowns when market leadership rotated.

## Analyst sentiment–momentum quintile analysis



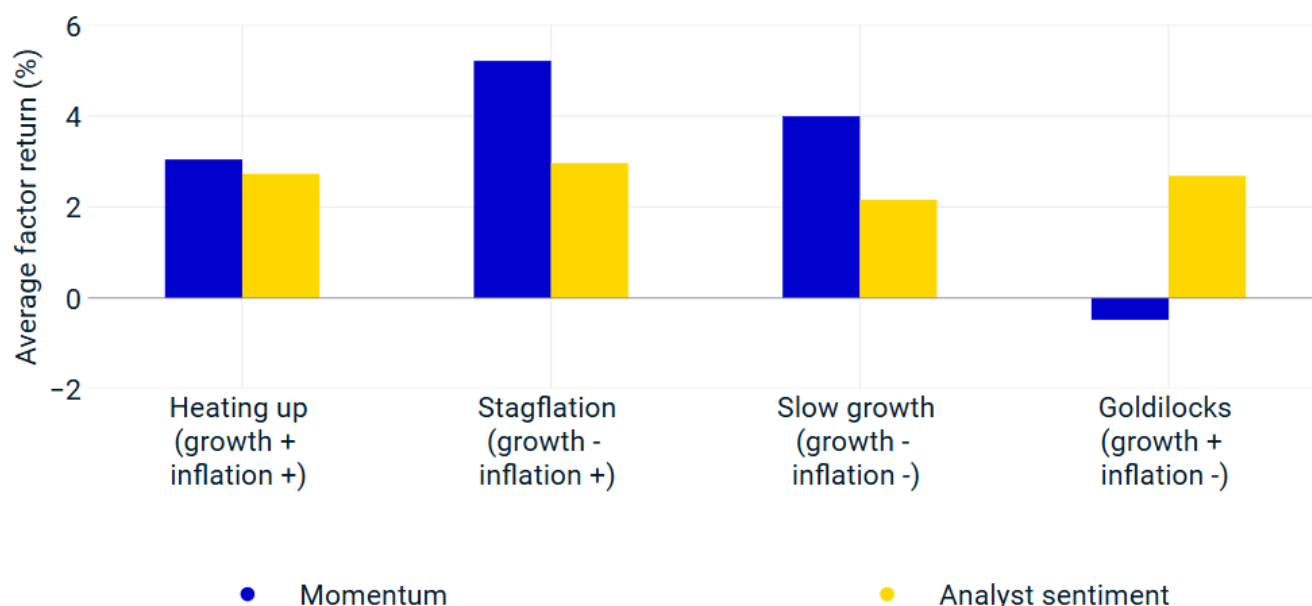
Data from Dec. 30, 1994, to June 30, 2025. Showing annualized average monthly quintile portfolio returns over gross USD returns of MSCI ACWI IMI. The quintile portfolios are constructed based on month-end factor exposures. Analyst sentiment quintiles are formed within each momentum quintile. Momentum exposures are based on MSCI GEMLT model. Quintile portfolio returns are based on equal weighting of securities within each quintile and excess returns are calculated relative to equal weighted MSCI ACWI IMI.

## Behavior within distinct macroeconomic states

To understand the potential impact of a factor on an investor’s portfolio, it’s important to assess how the factor has responded to varying macroeconomic risks and environments. To do this for analyst sentiment and momentum, we classified each month between 1995 and May 30, 2025, into one of four macro states: rising growth/rising inflation, rising growth/falling inflation, slowing growth/rising inflation and slowing growth/falling inflation.

When pure-factor returns were averaged within those states, momentum showed cyclicity: The factor performed best when growth was decelerating — particularly during stagflation (slowing growth with rising inflation) — and showed muted performance in the goldilocks phase (rising growth with falling inflation). Analyst sentiment, by contrast, recorded positive and similar levels of average returns in all four environments. The smoother profile suggests that analyst revisions have tended to keep pace with shifting fundamentals, allowing the factor to adapt more quickly than momentum, a price-trend measure that is backward-looking.

## Macro analysis of analyst sentiment and momentum



Data from Dec. 30, 1994, to May 30, 2025. Showing annualized pure-factor returns in each macroeconomic state. Growth is based on the OECD composite leading indicator (CLI) for G20 countries and growth + and - mean the month-on-month change in the CLI  $\geq 0$  and  $< 0$  respectively. Inflation is based on the U.S. CPI all items (seasonally adjusted), and inflation + and - mean (annualized 3-month change in CPI - annualized 36-month change in CPI)  $\geq 0$  and  $< 0$  respectively. The regimes had the following number of monthly observations: stagflation (91), slow growth (86), goldilocks (90) and heating up (97). The factor returns are based on MSCI GEMLT. Source: OECD, U.S. Bureau of Labor Statistics and MSCI.

## Indexing analyst sentiment

Having examined analyst sentiment as a pure factor and its relationship to momentum, we now focus on the construction and characteristics of a long-only index designed to capture analyst sentiment returns, accounting for practical considerations such as investability and replicability.

### Index design framework

In designing the analyst sentiment index, our objective is to maximize index-level exposure to the analyst sentiment factor, while controlling ex-ante active portfolio risk and other metrics of investability, such as concentration, capacity, turnover and exposures to the Global Industry Classification Standard (GICS®)<sup>3</sup> sectors, countries and other style factors. We chose an optimization-based approach as this offers flexibility in controlling overall index characteristics. The key questions are:

1. How has analyst sentiment performed in long-only index implementation?
2. How do active risk and exposure constraints impact index characteristics?

<sup>3</sup> GICS is the global industry classification standard jointly developed by MSCI and S&P Dow Jones Indices.

### 3. What is the impact of varying the rebalancing frequency and turnover budget?

#### Risk budget considerations

Starting with the MSCI ACWI Index universe,<sup>4</sup> we simulated four versions of the analyst sentiment index, each with a different active risk budget: 2%, 3%, 4% and 5%. All simulations demonstrated a strong active return profile, with annualized active returns ranging between 1.9% and 2.1%, confirming that the analyst sentiment factor persisted in a long-only, constraint-bound implementation.<sup>5</sup>

The 2% risk budget simulation yielded the highest information ratio, though its realized tracking error (measured as 3-year standard deviation of trailing active returns) almost always exceeded the budget over the past 20 years, a common outcome due to differences in model assumptions vs. realized volatility. By contrast, the 5% risk budget had underutilized risk capacity. The simulation with 4% risk budget provided a closer alignment between ex-ante risk assumptions and realized outcomes, making it more of interest for investors prioritizing risk predictability.

#### Select optimization parameters — varying active risk budget

	Simulation 1	Simulation 2	Simulation 3	Simulation 4
Ex-ante active risk	2%	3%	4%	5%
Active country constraints	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Active sector constraints	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Rebalancing	Quarterly	Quarterly	Quarterly	Quarterly
Turnover (per rebalancing)	20%	20%	20%	20%

#### Impact of active risk budget

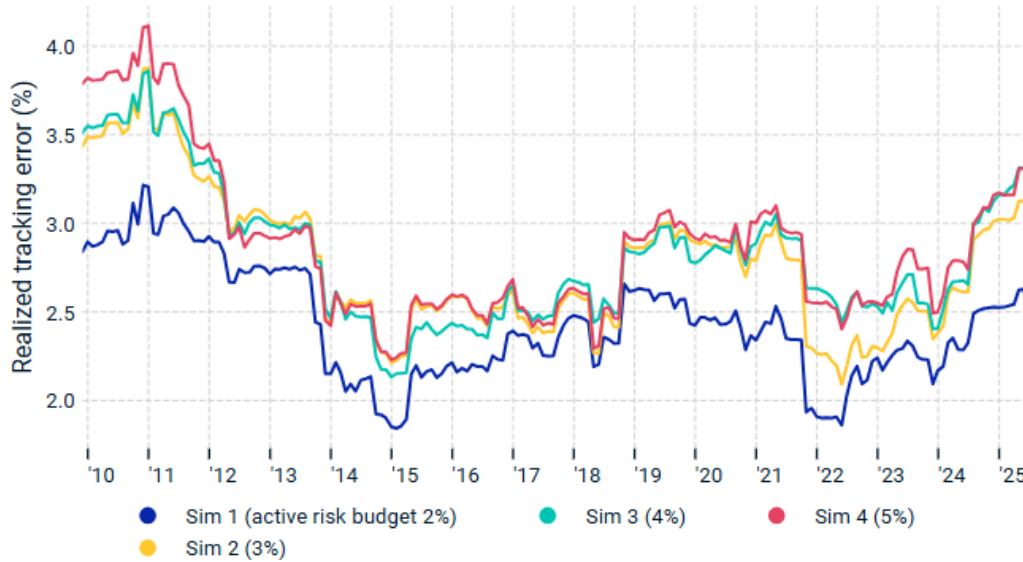
	MSCI ACWI	Simulation 1 (active risk 2%)	Simulation 2 (active risk 3%)	Simulation 3 (active risk 4%)	Simulation 4 (active risk 5%)
Total return* (%)	7.8	9.8	9.9	9.8	9.7
Total risk (%)	16.2	16.6	16.7	16.5	16.6
Return / risk	0.48	0.59	0.59	0.6	0.58
Tracking error (%)	0	2.5	2.9	2.9	3
Information ratio		0.82	0.73	0.7	0.64
Number of constituents**	2640	631	443	450	375
Style-factor contribution (%)		1.32	1.45	1.45	1.46

Data from Nov. 30, 2006, to June 30, 2025. \*Gross returns annualized in USD \*\* Monthly averages

<sup>4</sup> Historical analyst coverage for MSCI ACWI Index universe is shown in Appendix 3.

<sup>5</sup> This outperformance aligns with the analysis presented earlier, where deciles 7 through 10 were shown to outperform. A long-only analyst sentiment index would typically select securities from those high exposure deciles, subject to optimization constraints.

### Utilization of active risk budget: 3 year rolling tracking error



Data from Nov. 30, 2006, to June 30, 2025.

### Investability considerations

Constraints on country and sector exposures and on total turnover can lead to dilution of factor exposure, while unconstrained versions can result in index concentration and index replication concerns. To examine this, we compared a constrained analyst sentiment index variant (simulation 3 from above analysis) with one where countries, sectors and turnover were unconstrained (simulation 5) and a further simulation where only countries and sectors were unconstrained (simulation 6).

Removing constraints increased factor exposure but also led to greater concentration and substantially higher turnover, potentially challenging replication. Conversely, the constrained version offered better tracking error control and enhanced investability.

### Select optimization parameters — varying exposure and turnover constraints

	Simulation 3	Simulation 5	Simulation 6
Ex-ante active risk	4%	4%	4%
Active country constraints	+/- 5%	Unconstrained	Unconstrained
Active sector constraints	+/- 5%	Unconstrained	Unconstrained
Rebalancing	Quarterly	Quarterly	Quarterly
Turnover (per rebalancing)	20%	Unconstrained	20%

## Impact of exposure and turnover constraints

	MSCI ACWI	Simulation 3 (constrained)	Simulation 5 (country, sector, turnover unconstrained)	Simulation 6 (country, sector unconstrained)
Return / risk	0.48	0.6	0.59	0.61
Active return (%)	0	2.1	2.1	2.3
Tracking error (%)	0	2.9	3.5	3
Information ratio		0.7	0.62	0.77
Number of constituents**	2640	450	342	389
Active exposure - analyst sentiment**		0.38	0.5	0.4
Turnover*** (%)	3.1	82.2	240.4	82.4
Maximum active sector weight (%)**		6.1	16.5	12.7
Maximum active country weight (%)**		7.4	15.6	13.3

Data from Nov. 30, 2006, to June 30, 2025. \*Gross returns annualized in USD \*\* Monthly averages \*\*\* Annualized one-way index turnover over index reviews.

## Rebalancing frequency

Analysts frequently change their views on companies, making it important to examine the effect of rebalancing frequency on index characteristics. Reconstituting the index each month (simulation 7) led to high sentiment exposure (0.55 vs 0.38 for simulation 3) and slightly improved the information ratio (0.76 vs. 0.7) but caused turnover to triple. Semi-annual rebalancing (simulation 8) reduced turnover but at the cost of a lower information ratio. Quarterly rebalancing offered the best balance between exposure, performance and turnover.

We also ran an additional set of simulations (not shown) in which we held the annual turnover budget constant at 80%, while varying the rebalancing frequency — monthly, quarterly and semi-annually. Despite each setup achieving a comparable active exposure to the analyst sentiment factor (ranging between 0.38 and 0.41), we observed notable differences in performance efficiency. The quarterly rebalanced simulation produced the highest information ratio (0.70), compared to 0.60 for both the monthly and semi-annual setups.

## Select optimization parameters —varying rebalancing frequency

	Simulation 3	Simulation 7	Simulation 8
Ex-ante active risk	4%	4%	4%
Active country constraints	+/- 5%	+/- 5%	+/- 5%
Active sector constraints	+/- 5%	+/- 5%	+/- 5%
Rebalancing	Quarterly	Monthly	Semi-annual
Turnover (per rebalancing)	20%	20%	20%

## Impact of rebalancing frequency

	MSCI ACWI	Simulation 3 (quarterly rebalance)	Simulation 7 (monthly rebalance)	Simulation 8 (semi-annual rebalance)
Return / risk*	0.5	0.6	0.6	0.6
Information ratio		0.7	0.76	0.5
Turnover** (%)	3.2	82.2	241.4	41.1
Active exposure - analyst sentiment***		0.38	0.55	0.26

Data from Nov 30, 2006 to Jun 30, 2025. \*Gross returns annualized in USD \*\* Annualized one-way index turnover over index reviews.

\*\*\* Monthly averages.

The MSCI Analyst Sentiment Indexes are built based on the parameters from simulation 3.<sup>6</sup> We now compare the index with other MSCI single factor indexes built from MSCI ACWI.

## Comparing the analyst sentiment index with other factor indexes

The analyst sentiment index outperformed the MSCI ACWI by 2.1% on an annualized basis between November 2006 and June 2025. It only ranked behind quality and performed similarly to momentum. The index also maintained one of the lowest tracking errors across all factor indexes and an information ratio comparable to quality. It had the shallowest and shortest drawdowns among single-factor indexes, helping it sustain performance through market cycles.

## Key performance metrics

	MSCI ACWI	Momentum	Quality	Enhanced value	Minimum volatility	High dividend yield	Equal weighted	Growth target	Analyst sentiment
Total return* (%)	7.8	9.7	10.7	6.0	7.7	6.2	5.6	8.9	9.8
Total risk (%)	16.2	16.7	15.2	18.2	11.0	15.6	17.6	16.1	16.5
Return / risk	0.48	0.58	0.71	0.33	0.70	0.40	0.32	0.56	0.60
Active return (%)	0.0	1.9	2.9	-1.8	-0.1	-1.6	-2.2	1.1	2.1
Tracking error (%)	0.0	7.3	4.0	6.0	7.9	5.2	5.3	2.2	2.9
Information ratio		0.27	0.73	-0.29	-0.02	-0.31	-0.41	0.51	0.70
Maximum active returns drawdown (%)	0.0	-24.1	-9.5	-40.9	-32.4	-30.1	-45.9	-7.3	-8.7

<sup>6</sup> More details on the MSCI Analyst Sentiment Index methodology can be found [here](#).

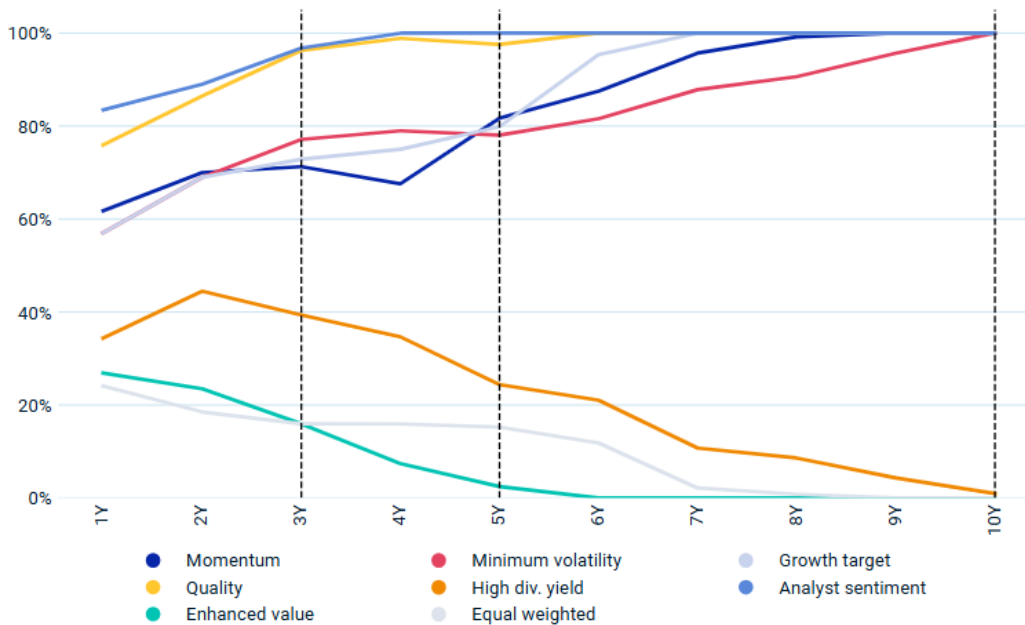
Maximum active returns  
drawdown period  
(months)

0 29 12 182 102 159 171 40 4

Data from Nov. 30, 2006, to June 30, 2025. \* Gross returns annualized in USD.

The chart below analyzes the hit ratio for the factor indexes relative to the MSCI ACWI Index, based on risk-adjusted returns over rolling periods ranging from one to 10 years. The analyst sentiment index outperformed the MSCI ACWI Index in roughly 95% of 3-year rolling periods in our study and exhibited consistency similar to quality.

### Frequency of MSCI ACWI factor indexes outperforming parent index over rolling periods



MSCI data from Nov. 30, 2006, to June 30, 2025. Risk-adjusted returns are in USD and observed monthly.

Unlike many factor indexes that have historically generated most of their alpha by limiting losses in down markets, the analyst sentiment index has outperformed in both up and down markets.

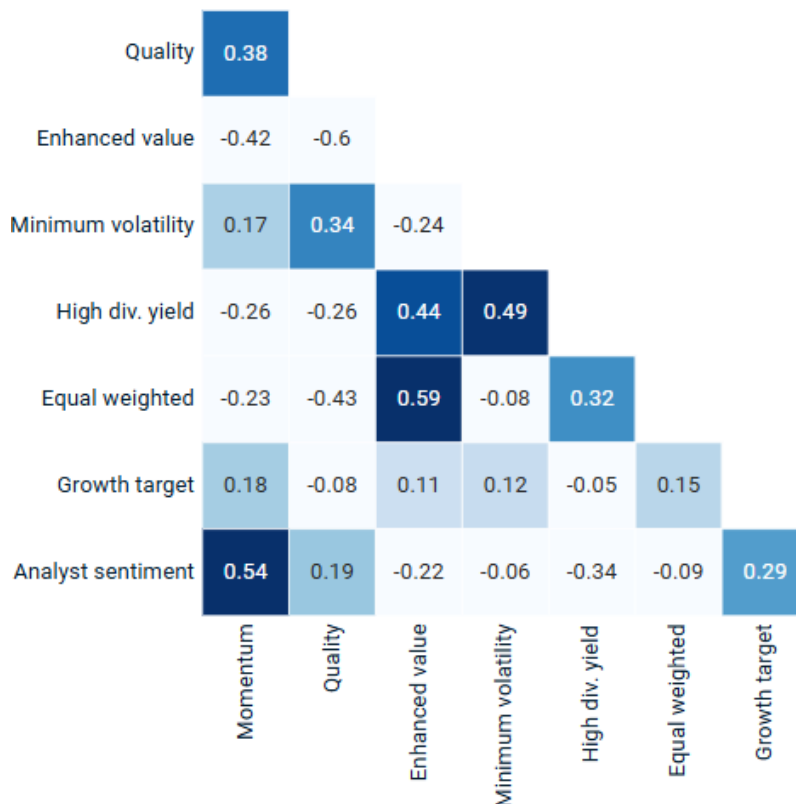
### Up- and down-market metrics

	MSCI ACWI	Momentum	Quality	Enhanced value	Minimum volatility	High dividend yield	Equal weighted	Growth target	Analyst sentiment
<b>Up markets* (138 out of 223 months)</b>									
Average monthly return (%)	3.5	3.6	3.5	3.5	2.4	3.1	3.4	3.6	3.7
Average monthly active return (%)		0.1	0.0	-0.0	-1.2	-0.4	-0.2	0.0	0.2
Capture ratio (%)		101.9	100.7	99.6	67.3	88.6	95.2	101.0	104.8
<b>Down markets** (85 out of 223 months)</b>									
Average monthly return (%)	-3.8	-3.5	-3.3	-4.0	-2.1	-3.5	-3.9	-3.6	-3.6
Average monthly active return (%)		0.3	0.5	-0.3	1.7	0.3	-0.1	0.2	0.2
Capture ratio (%)		91.9	86.3	106.9	55.3	92.0	103.2	95.5	96.0

MSCI data from Nov. 30, 2006, to June 30, 2025. Returns are in USD and observed monthly. \*Months when the benchmark index had positive returns. \*\*Months when the benchmark index had negative returns.

The analyst sentiment index showed generally low or negative active return correlation with most other single-factor indexes. While it had a positive correlation with momentum, this level of correlation has not been atypical among factor pairs. Importantly, over the past two decades, the average monthly constituent overlap between the momentum and analyst sentiment indexes was 26%, with an average 3-year tracking error of 5.8%, which suggests significantly different performance tracks.<sup>7</sup>

### Correlation of active returns



MSCI data from Nov. 30, 2006, to June 30, 2025. Returns are in USD and observed monthly.

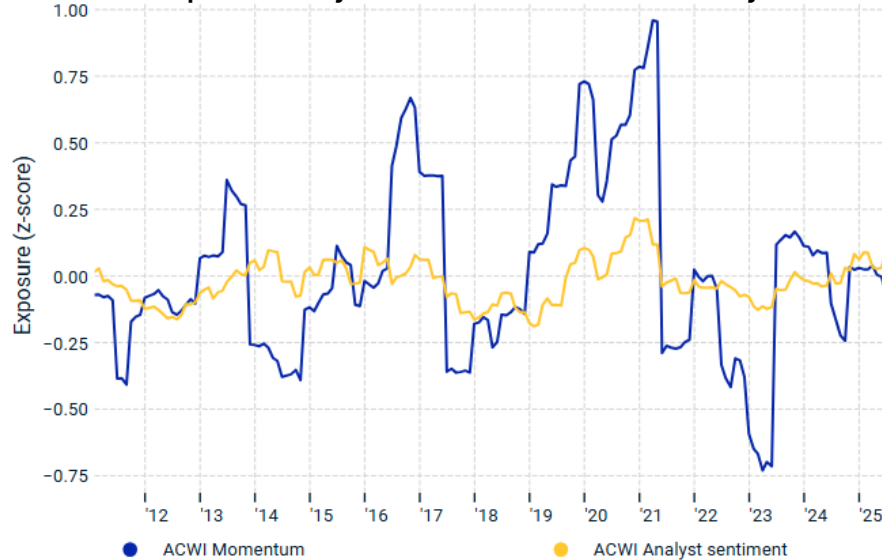
In the current market environment, it is important to understand how factor indexes may respond to macro risks. Sze et al. (2025) shows how macro sensitivities may be identified and managed. We measured the sensitivity of the analyst sentiment index to changes in 10-year U.S. Treasury yield and compared it with the momentum index.<sup>8</sup> While momentum's exposure to interest rate changes was highly variable — ranging from -0.75 to +1 in z-score terms — indicating that its performance can be

<sup>7</sup> While correlation measures the direction and the strength of the linear relationship between two assets, the actual returns and their magnitude can be vastly different.

<sup>8</sup> Interest rate sensitivity (IRS) is calculated by regressing an asset's CAPM residual returns on the return to the 10-year benchmark rate for each of the 77,000+ stocks included within MSCI FactorLab. The IRS factors calculated for USD, EUR and JPY are part of FactorLab, which offers access to new research-enhanced datasets for use cases ranging from alpha research to building custom risk factors. As of May 30, 2025, FactorLab included daily data of 212 factor descriptors across 12 factor categories.

either positively or negatively impacted by rate movements, the analyst sentiment index shows a much more muted sensitivity, suggesting its performance is more insulated from such changes.

### Macro risk exposure: 10-year USD interest rate sensitivity

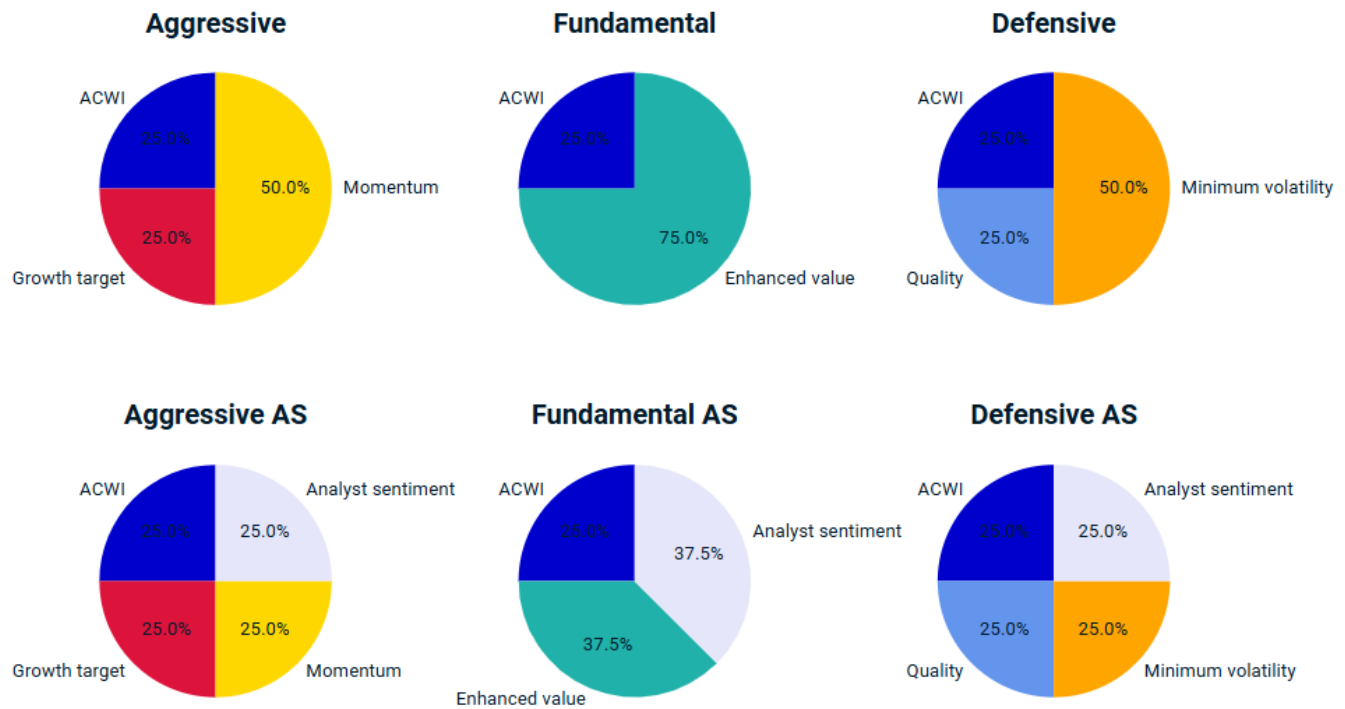


Data from January 2011 to June 2025. End-of-month index-weighted (standardized) exposures.

## The MSCI ACWI Analyst Sentiment Indexes in multi-factor allocations

We now look at the use of analyst sentiment in three hypothetical multi-factor allocation strategies, corresponding to investment objectives we label aggressive, fundamental and defensive. In each case, analyst sentiment was introduced by proportionally reducing the weight of one of the existing single-factors (as proxied by the relevant index), allowing us to assess how sentiment complements existing exposures. The allocations were analyzed over the period from November 2006 to June 2025.

## Multi-factor allocations



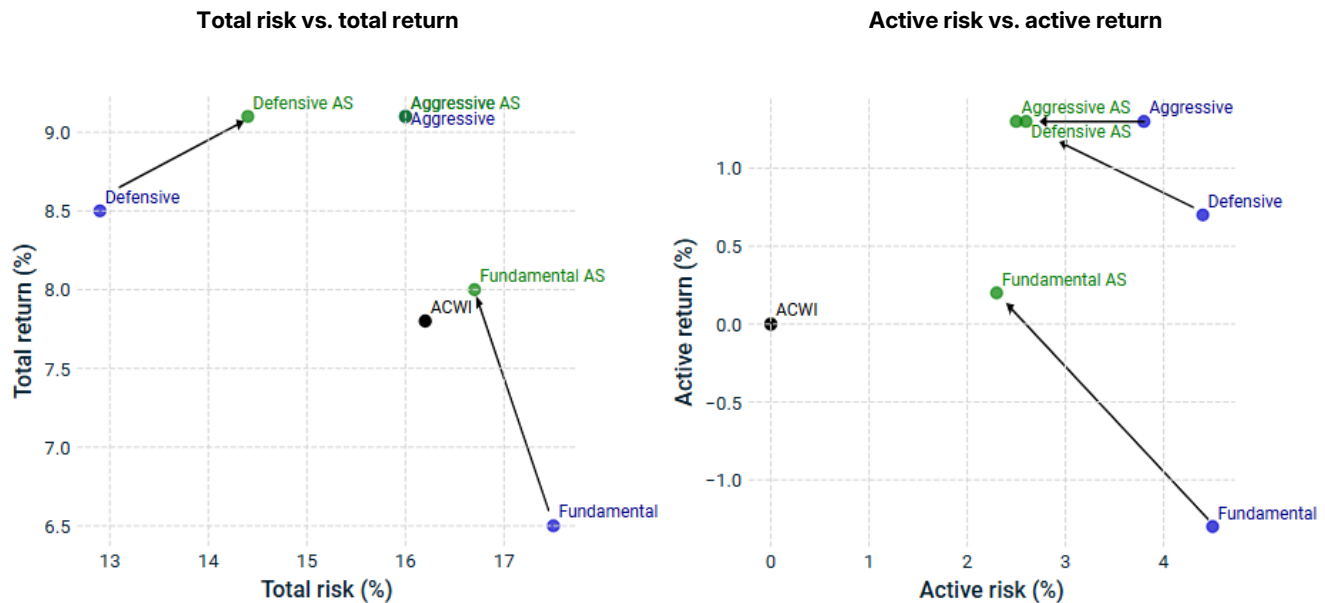
AS refers to analyst sentiment. The lower panel shows multi-factor combinations with analyst sentiment included.

In the aggressive strategy, which originally relied heavily on momentum, analyst sentiment replaced a portion of that exposure. Given their comparable total return and risk profiles, this substitution preserved returns while significantly reducing active risk. Importantly, analyst sentiment provided diversification during momentum drawdowns and reduced the allocation's maximum active return drawdown from 13.5% to 7.2%.

In the fundamental strategy — anchored around value — analyst sentiment's inclusion potentially reduced exposure to value traps. While integration of analyst sentiment reduced exposure to the value factor, total returns increased while both total and active risk decreased. This shows the complementary nature of analyst sentiment to a value-factor-based selection.

Lastly, in the defensive allocation, which originally emphasized minimum volatility and quality, adding analyst sentiment raised total volatility but significantly reduced active risk.

## Backtesting the factor combinations



Data from November 2006 to June 2025. Gross returns annualized in USD. Index allocation weights were reset every month.

## Conclusion

Over the past several years, analyst sentiment has emerged as a differentiated factor that relies on trends in the forward-looking insights of sell-side analysts. Unlike traditional style factors, which are often based on static fundamentals or lagging price trends, analyst sentiment adapts dynamically to new information, offering a potentially timelier view of market expectations. This paper showed that the factor, as represented by the MSCI ACWI Analyst Sentiment Index has consistently added value both as a pure factor and within long-only implementations, with lower crash sensitivity and higher risk-adjusted returns than momentum, even in a high-rate and high volatility regime.

Our research found that, for institutional investors such as pension plans, analyst sentiment would have provided a systematic and scalable input for factor allocations, portfolio optimization and alpha research. It may be used to enhance the construction of other factor portfolios such as momentum or be introduced as a standalone factor in multi-factor strategies. For wealth managers, it may have served as a complement to momentum or value strategies — providing improved diversification and potential resilience during market cycle turning points.

## Appendix 1: Analyst sentiment factor descriptors

We define analyst sentiment as an equal-weighted composite of analyst revisions on sales, earnings, cash flow, price targets and buy or sell recommendations. For each of these metrics, we created factors using an equal-weighted combination of the following three descriptors, with the first two focusing on price target and recommendation,<sup>9</sup> and normalizing each using z-scores across the MSCI ACWI IMI:

1. The revision ratio quantifies the number of analysts revising upward relative to downward.
2. The change in analyst-predicted estimate captures the percentage change of the analyst estimate over the past four quarters.
3. The change in analyst-predicted estimate-to-market ratio captures changes to the ratio of analyst predicted estimates of the indicator to the market-based indicator (price for earnings per share and cash-flow per share and market capitalization for sales).

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<sup>9</sup> Analyst sentiment factor descriptors are sourced from MSCI FactorLab. The underlying analyst estimates are sourced from the I/B/E/S database.

## Appendix 2: Performance of pure analyst sentiment factor (orthogonalized)

Below we show the performance of the pure analyst sentiment factor when it was orthogonalized relative to all other style factors within MSCI GEMLT. Compared to all style factors, the orthogonalized analyst sentiment factor delivered the second-highest annualized return (after momentum) and the highest risk-adjusted return over the past 30+ years.

### Performance of analyst sentiment (orthogonalized) compared to GEMLT style factors

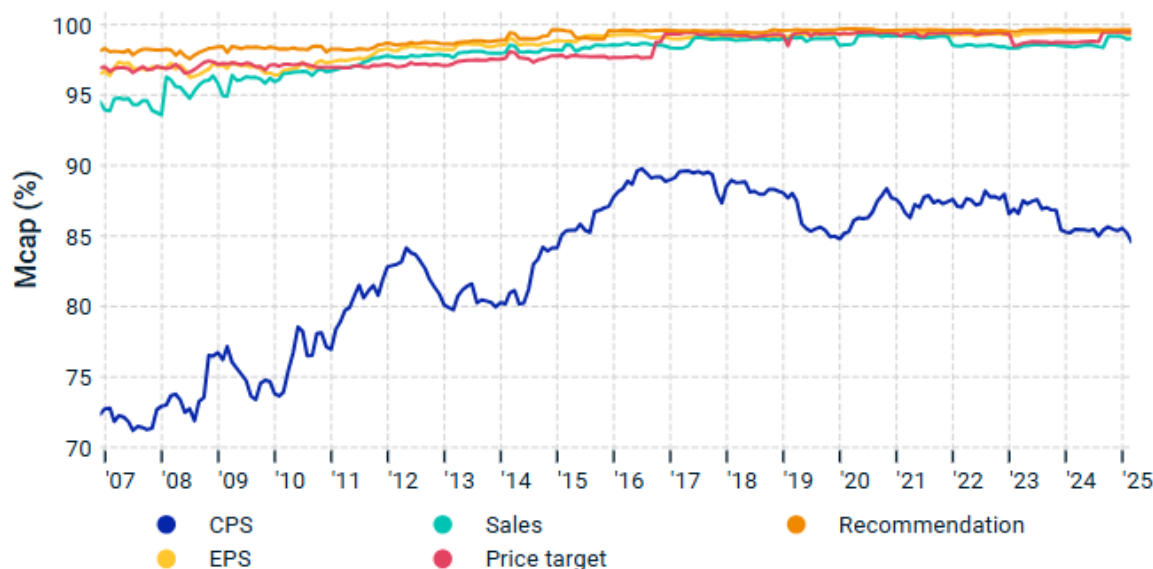
Factors	Annualized return	Annualized risk	Return/risk
Beta	0.5%	5.2%	0.10
Book-to-price	1.7%	1.5%	1.12
Dividend yield	0.7%	1.2%	0.61
Earnings quality	1.0%	0.8%	1.25
Earnings variability	-0.4%	1.2%	-0.29
Earnings yield	1.8%	2.1%	0.89
Growth	0.8%	1.1%	0.73
Investment quality	1.0%	0.9%	1.18
Leverage	0.0%	1.1%	0.04
Liquidity	-0.7%	2.3%	-0.28
Long-term reversal	1.1%	1.5%	0.71
Mid capitalization	0.1%	1.3%	0.06
Momentum	3.8%	4.1%	0.94
Profitability	1.0%	1.2%	0.88
Residual volatility	-2.2%	3.2%	-0.70
Size	0.2%	2.3%	0.08
Analyst sentiment	2.3%	1.1%	2.17

Data from Dec. 30, 1994, to June 30, 2025.

## Appendix 3: Coverage of analyst revisions

The depth of analyst coverage has varied across different analyst sentiment metrics — revisions in EPS, CPS, sales, price targets and recommendations — and has shifted over the past two decades. In the chart below, we calculate the proportion of the MSCI ACWI Index (by market capitalization) where each security had at least two contributing analysts per metric. Analyst coverage has remained consistently high for EPS, sales, price targets and recommendations and has improved in past years for CPS.

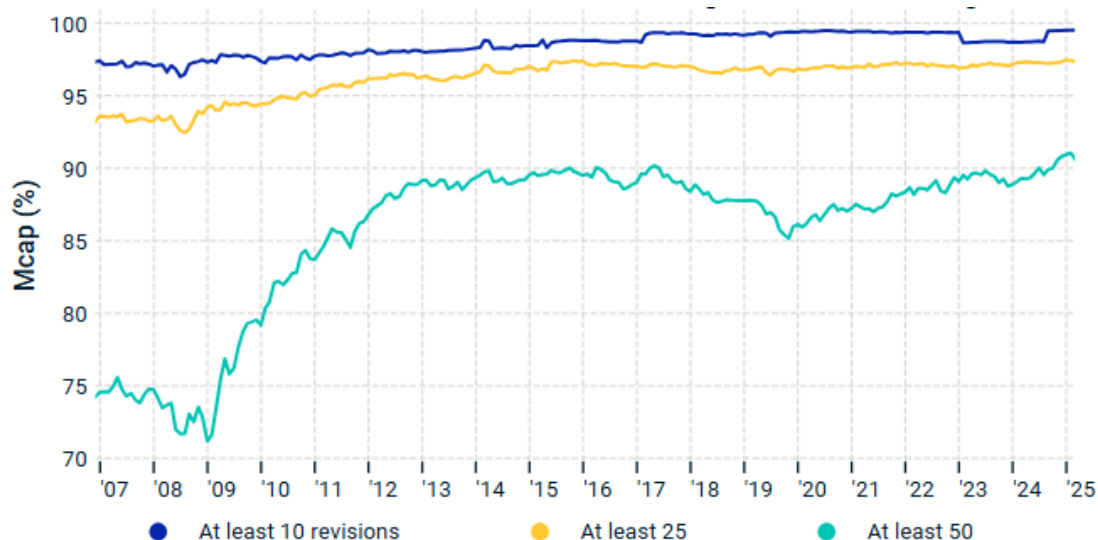
**Share of the MSCI ACWI Index (by market cap) with at least two analyst estimates per metric**



Data from Nov. 30, 2006, to June 30, 2025.

To complement the metric-level view, we examine analyst coverage in aggregate across all five metrics. In the chart below, we report the proportion of the MSCI ACWI Index (by market capitalization) where each security received at least 10, 25 or 50 total revision estimates across EPS, CPS, sales, price targets and recommendations. For example, in 2025, over 90% of the MSCI ACWI (by market cap) had more than 50 total revisions, suggesting broad coverage.

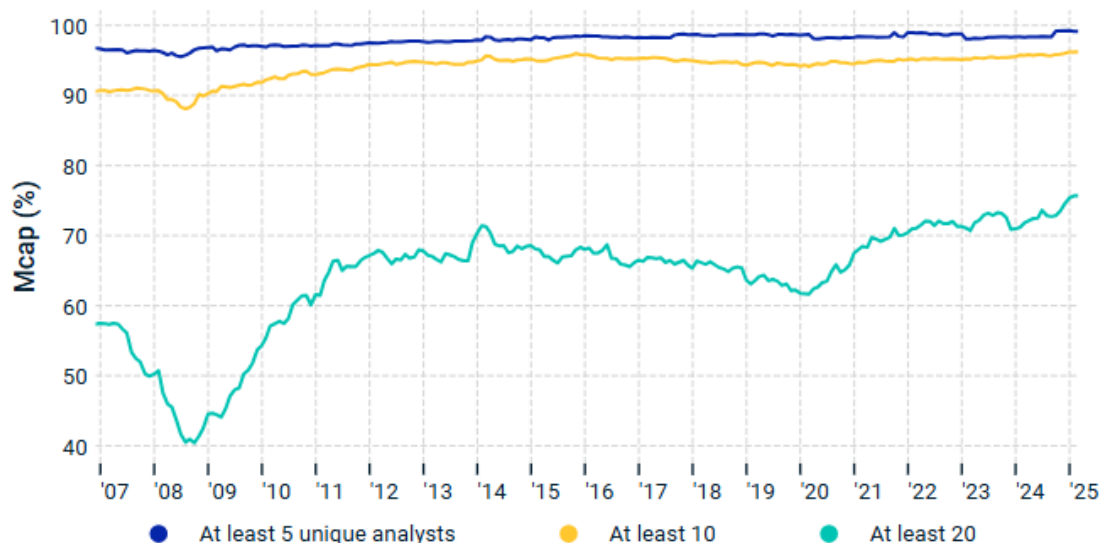
### Share of the MSCI ACWI Index (by market cap) by total number of analyst revisions per security (across all 5 metrics)



Data from Nov. 30, 2006, to June 30, 2025.

Lastly, below we show the unique number of analysts providing revisions on the MSCI ACWI Index constituents, a maximum across any of the five metrics. In 2025, roughly 95% of the MSCI ACWI Index (by market cap) was tracked by at least 10 unique analysts.

### Share of the MSCI ACWI Index (by market cap) by unique number of analysts per security (across any of the five metrics)

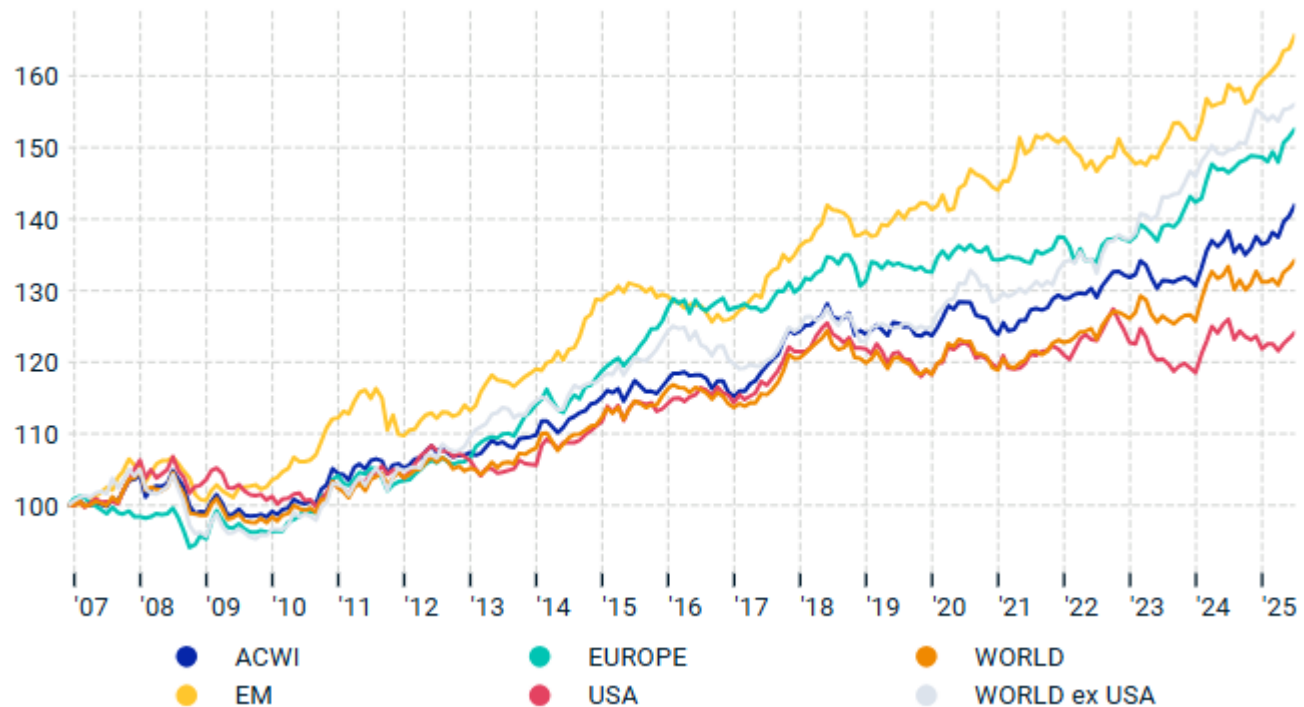


Data from Nov. 30, 2006, to June 30, 2025.

## Appendix 4: Regional performance of analyst sentiment

The long-run outperformance of analyst sentiment has been pervasive across regions — with outperformance being strongest in emerging markets and weakest in the U.S. In the past five years, performance of analyst sentiment has also picked up significantly in developed markets outside the U.S. but still remained mostly flat in the U.S.

### Regional performance of analyst sentiment relative to parent index



Data from Nov. 30, 2006, to June 30, 2025.

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