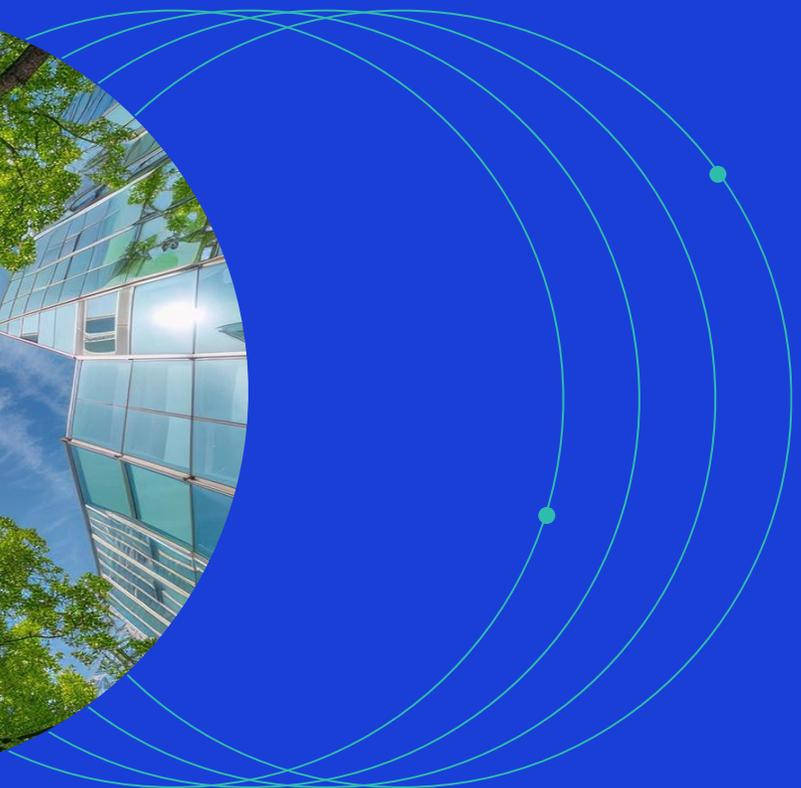




The Return and Risk Characteristics of Controversy-Driven Exclusions



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Executive summary

Multiple studies have shown that by focusing only on financially material risks and opportunities, investors can use sustainability data to identify companies that have paired higher profits with lower risk and higher long-term returns. Investors often have preferences, however, that extend beyond financial materiality, such as a desire to align with stakeholder values or avoid reputational risk. One way to achieve this goal is to adopt an exclusions-based approach, screening out companies that are alleged to have caused harm or been involved in wrongdoing.

This paper investigates the impact that such an approach can have on risk-adjusted returns. Is it possible to incorporate preferences without negatively impacting financial outcomes? Our findings suggest that not only is it possible to avoid a negative impact, but by using a targeted approach to some exclusions, investors could see a positive impact on performance.

For our analysis, we built two hypothetical portfolios based on constituents of the MSCI ACWI Investable Market Index (IMI) and utilized data from MSCI ESG Controversies. The targeted-exclusion screen removed firms with the most severe controversies; the broad-exclusion screen removed a wider selection of firms. For both sets of hypothetical portfolios we compared the market performance relative to the full MSCI ACWI IMI Index universe.

Targeted exclusions generated low tracking errors and delivered small but mixed active returns relative to the underlying benchmark. Excluding companies involved in the most severe environmental, governance or overall controversies helped slightly; excluding the most severe social cases had a negative impact.

Broad exclusions raised tracking error and, except for environmental controversies, reduced risk-adjusted returns. A factor-return attribution analysis showed that the broad screens systematically dropped large caps, imposing a small-cap tilt. This small-cap tilt had a negative impact on performance.

In addition to testing the impact of exclusions on market performance, we tested the impact of controversies on corporate fundamentals. In the MSCI ACWI IMI Index universe, companies that lost their green flag (i.e., experienced a sufficiently significant controversy to move into the broad-exclusion bucket) generally exhibited slower earnings growth, except in the environmental category.

Introduction

MSCI ESG Ratings focus only on the financially material risks and opportunities facing a company. By contrast, MSCI ESG Controversies do not have a financial-materiality focus. Controversy scores offer an opinion of a company's involvement in sustainability-related controversies and incidents, such as allegations that the company had a negative impact on the environment or society or was involved in wrongdoing.

Investors may seek to reduce exposure to controversial companies through outright exclusions, weight reductions or other risk-management techniques, typically motivated by ethical guidelines, formal investment-policy requirements or risk considerations built into fundamental analysis. Research on how these choices affect portfolio outcomes is still sparse, leaving gaps in our understanding of their performance implications.

Studies by Giese et al. (2019) and Berg et al. (2023) show that treating MSCI ESG Ratings as a forward-looking risk signal in portfolio construction can improve risk-adjusted returns, even after controlling for industry, regional and equity-style factor exposures. In this paper we apply the same test to MSCI ESG Controversies, asking whether controversy-based exclusions translate into a measurable effect on a portfolio's risk-return characteristics.

A stream of research has argued that excluding stocks from a benchmark universe is a technical constraint that reduces the opportunity set for investing and the level of diversification, which may lead to lower levels of risk-adjusted returns. For instance, Blitz and Swinkels (2021) assessed the impact of the exclusion of so-called "sin stocks" in terms of tracking error and performance. They found a negative relationship between the number of exclusions on the one hand and risk-adjusted performance on the other. They also found that the financial impact was quite small for a low number of exclusions (with a low tracking error due to the exclusion), while the impact increased considerably when the number of exclusions increased. In practice, institutional investors rarely use exclusions as the center of their strategies, they are just one component of an overall investment process.

The common critique of exclusions — that restricting the investable universe assumes no financial gain from the screen — only applies when the screen is value-neutral. If the exclusions are driven by a clear financial rationale, such as dropping high-volatility stocks to construct a low-volatility portfolio, the critique no longer stands. Our study investigates which of two propositions holds true: Does removing controversial companies merely shrink the opportunity set and weaken risk-adjusted returns, or can investors express their preferences without damaging financial outcomes? Can some exclusions actually improve a portfolio's risk-return profile?

In a previous study (Lee et al., 2017), we analyzed how the removal of controversial companies based on overall ESG-controversy scores affected portfolio returns and risk. The study was based on the MSCI World Index from 2007 to 2017 and found that excluding companies involved in the most severe controversies actually had a moderate positive impact on performance. Broader exclusions, however, led to a higher tracking error and did not result in positive financial outcomes.

While the financial results for broader exclusions are in line with the findings of Blitz and Swinkels (2021), the slightly positive financial impact from excluding companies with the most severe controversies might suggest that those controversies offer a financial-risk signal, i.e., some leading indication for future risks that are not fully priced at the time when the controversy occurred. This may be due to the idiosyncratic nature of controversies, which makes it hard for financial markets to assess the full impact on a company's future business at the time the controversy is made public.

This paper updates and extends our prior research by examining pillar-level (environmental, social and governance) controversies individually. We also expanded our analysis to the MSCI ACWI IMI Index universe and looked at both market and fundamental performance.

Data and methodology

It is common practice in many MSCI sustainability indexes, as well as actively managed sustainability funds, to exclude companies that are flagged as controversial, based on an alleged adverse impact from their products or operations.¹ To thoroughly understand the impact of such exclusions, we employed two complementary analytical approaches — market-performance and fundamental-performance analysis. To do this, we constructed two hypothetical model portfolios from the MSCI ACWI IMI Index, using exclusions based on the 0-10 controversy scores in MSCI's assessment framework (see table on page 7). One portfolio excluded companies with the most severe active controversies (scores of 0-1) and the other adopted a broader exclusions strategy (scores of 0-4). Again, these portfolios are not construed as representations of full-fledged investment strategies but are built to test the effect of exclusions.

MSCI's controversy scores are determined by assessing an allegation along three dimensions — severity of impact, the company's direct or indirect involvement and the status of the case (ongoing, partially concluded or concluded). By intersecting these axes, each case is assigned a score: the lower the number, the greater the risk. An overall company score is generally determined based on the lowest (worst) scoring controversy case in which the company is involved. This numeric value, or flag color (red, orange or yellow) enables investors to filter companies that may encounter significant reputational or operational pressures while still drawing on MSCI's comprehensive controversy analysis.

¹ As an example, please refer to "[MSCI Selection Indexes Methodology](#)," May 2025.

MSCI ESG Controversy assessment scoring matrix

| | | Status of ESG-controversy case | | |
|-------------|--------------|--------------------------------|---------------------|-----------|
| Severity | Company role | Ongoing | Partially concluded | Concluded |
| Very severe | Direct | 0 | 1 | 2 |
| Very severe | Indirect | 1 | 2 | 3 |
| Severe | Direct | 1 | 2 | 3 |
| Severe | Indirect | 2 | 3 | 4 |
| Moderate | Direct | 4 | 5 | 6 |
| Moderate | Indirect | 5 | 6 | 7 |
| Minor | Direct | 6 | 7 | 8 |
| Minor | Indirect | 7 | 8 | 9 |

Source: MSCI ESG Research, as of June 2025

For each hypothetical portfolio we compared both the earnings growth and market performance to the full MSCI ACWI IMI Index universe. We then conducted performance-attribution analysis using the MSCI Global Equity Factor Model for market performance. This approach allowed us to break down active returns into contributions from equity-style factors, industries, countries, currencies and individual stock-specific returns. Understanding these drivers is essential for investors aiming to pinpoint precisely which factors — systematic or idiosyncratic — contributed positively or negatively to the portfolio’s performance.

The fundamental-performance analysis complements the market-based approach by providing additional insights into the financial health and operational strength of companies involved in controversies. While market analysis evaluates portfolio performance relative to various investment factors, fundamental analysis examines the companies’ earnings growth and operational stability. To assess fundamental performance, we categorized companies into two groups, based on changes in their controversy scores (those that recently lost their green flag, and the rest) and analyzed their subsequent earnings growth. The aim was to test if after a controversy event, companies’ earnings took a hit or not.

We applied two distinct weighting methods. The market-performance analysis used market-capitalization-based weights, which reflects a common approach to capital allocation and therefore follows a realistic portfolio approach. The fundamental analysis, by contrast, assigned equal weights to every company. This approach removed the “magnificent seven” mega caps’ outsized influence and offered a clearer picture of earnings across the MSCI ACWI IMI Index.

Before conducting these analyses, it is useful to first explore our dataset to understand the sectoral distribution of companies frequently involved in controversies. By identifying which sectors have historically shown higher overall occurrences of environmental, social and governance controversies

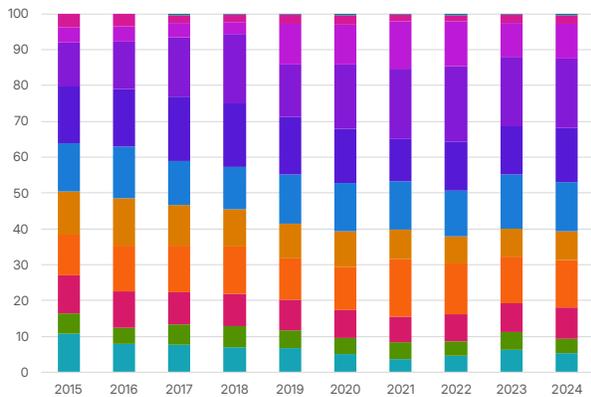
(scores 0-4), we can gain valuable context that helps us interpret the potential implications and drivers behind the results of our analysis.²

The chart on page 9 shows that companies with scores of 0-4 in social and governance controversies exhibited similar sector distributions, primarily concentrated in the information-technology, healthcare, and financials sectors. In contrast, companies involved in environmental controversies (scores 0-4) displayed a distinct sector profile, predominantly within the consumer-staples and energy sectors. Interestingly, the sector distribution for overall controversies closely mirrored that of social controversies.

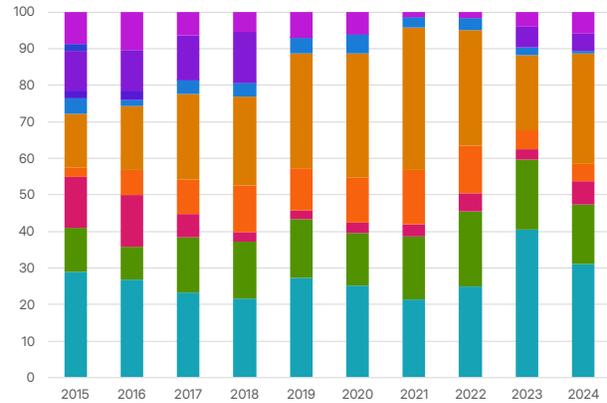
² The MSCI ESG Controversies analytical framework organizes controversy cases within three pillars: environment-, social- and governance-related. The pillars are further divided into themes and sub-themes. Each allegation of harm or wrongdoing is allocated to at least one theme. A company's pillar score is generally determined based on the lowest (worst) scoring controversy case allocated to one of that pillar's underlying themes.

Sector distribution of controversies among MSCI ACWI IMI Index constituents (scores of 0-4)

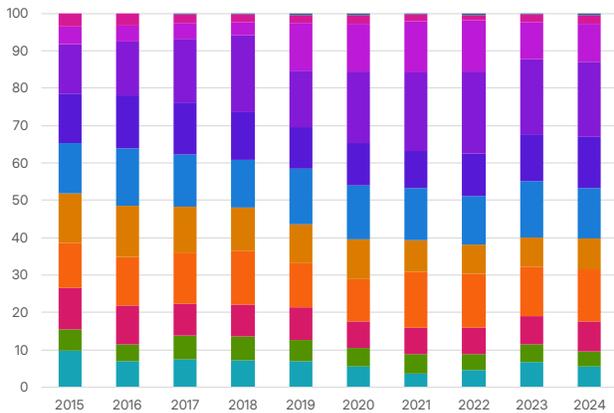
All controversies



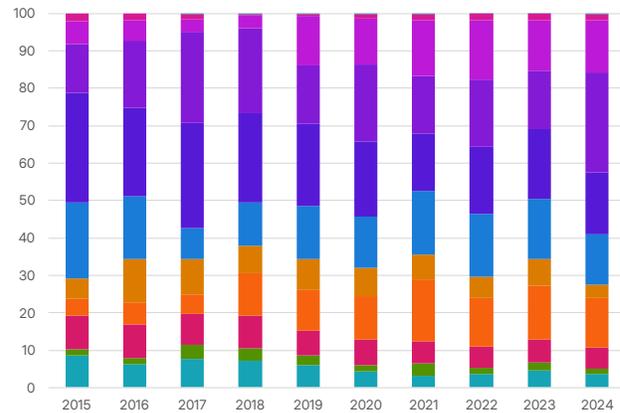
Environmental controversies



Social controversies



Governance controversies



-  Energy
-  Materials
-  Industrials
-  Consumer discretionary
-  Consumer staples
-  Health care
-  Financials
-  Information technology
-  Communication services
-  Utilities
-  Real Estate

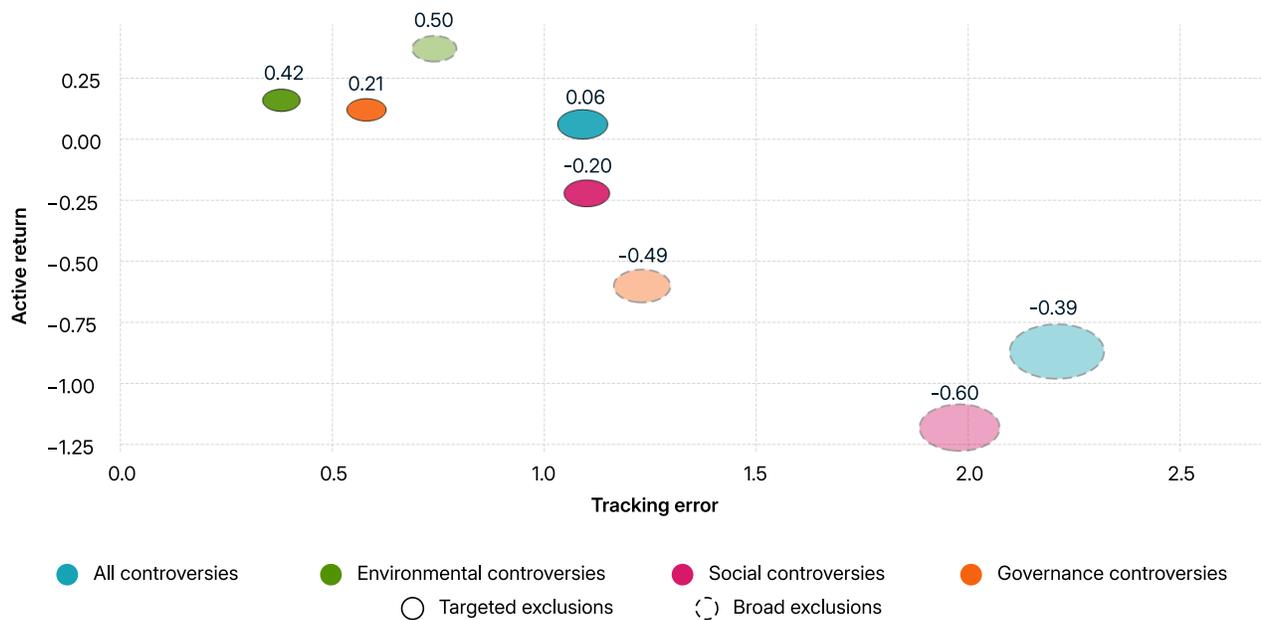
Data from Jan. 2015 to Jan. 2024. Companies from MSCI ACWI IMI Index with controversy scores ranging from 0 to 4 were selected, and their weights were subsequently rescaled. The stacked bar charts illustrate the annual sector distributions of these companies. Sector definitions are based on the Global Industry Classification Standard (GICS). GICS is the industry-classification standard jointly developed by MSCI and S&P Dow Jones Indices. Source: MSCI ESG Research

Assessing market performance of controversy exclusions

Using two main exclusion approaches, we analyzed eight hypothetical portfolios based on constituents of the MSCI ACWI IMI Index. The targeted-exclusion portfolio excluded companies with controversy scores of 0-1 (most severe) and the broad-exclusion portfolio excluded companies with controversy scores of 0-4 (severe and most severe). We then applied both exclusions to four controversy types — all controversies, only environmental controversies, only social controversies and only governance controversies. The resulting hypothetical portfolios were analyzed for their broad risk and return characteristics.

The next chart shows the annualized active return and tracking error for all eight portfolio variants. As expected, targeted-exclusion portfolios had lower tracking error than broad-exclusion portfolios. When it came to returns, we found that the targeted-exclusion variants also generated small absolute active returns. Moreover, not all of these active returns were positive over the study period: We found that a targeted-exclusion portfolio based on environmental, governance or overall controversies slightly improved their performance, while for social controversies it resulted in underperformance. The best risk-adjusted performance among the targeted-exclusion portfolios was achieved by the environmental-controversy portfolio.

Active return and tracking error of targeted exclusion and broad exclusion hypothetical portfolios relative to the MSCI ACWI IMI Index

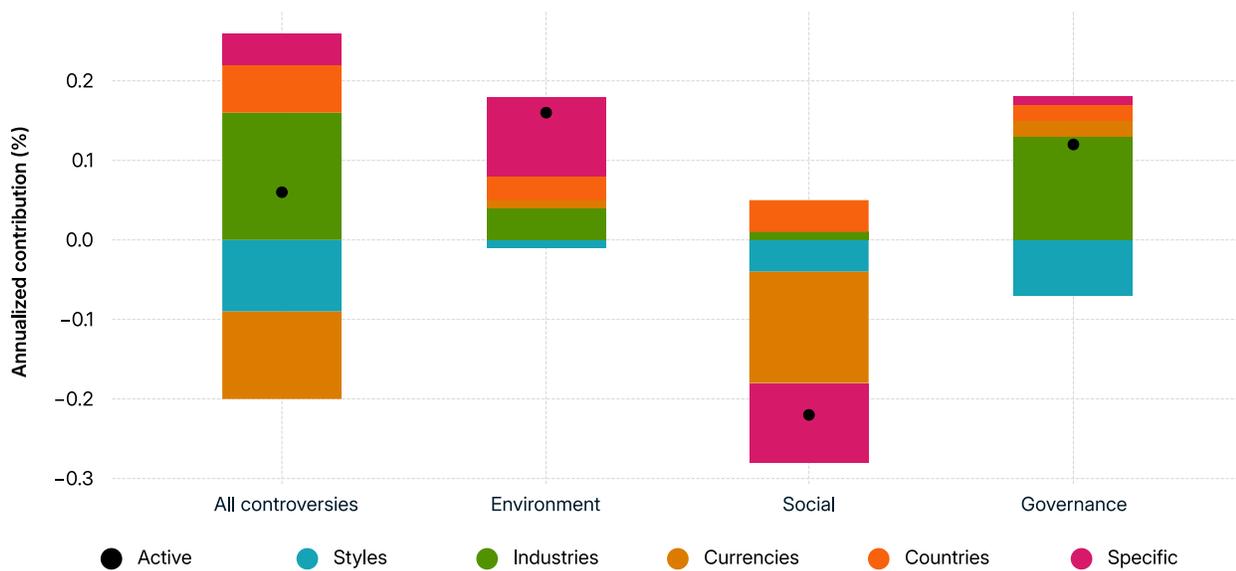


Data from January 2015 to December 2024. The border style indicates portfolio type (solid border for portfolios excluding controversy scores 0-1; dashed border for portfolios excluding scores 0-4). Colors represent the type of controversies excluded: blue for all controversies, green for environment, magenta for social and orange for governance controversies. Circle size corresponds to the number of companies excluded (larger circles indicate more exclusions). Information ratios (active return divided by tracking error) are shown above each circle. Source: MSCI ESG Research

The broad-exclusion approach, on the other hand, decreased performance for all hypothetical portfolios except the portfolio based on environmental controversies that had an information ratio of 0.50, which was higher than all of the targeted-exclusion approaches. The general underperformance of broad-exclusion portfolios is in line with the academic literature outlined earlier.

Next, we used MSCI's Global Equity Factor Model to drill into the sources of active return. The chart below breaks down sources of the active performance of the targeted-exclusion portfolios into factor categories.

Performance attribution of targeted-exclusion portfolios vs. the MSCI ACWI IMI Index



Data from Jan. 30, 2015, to Dec. 31, 2024. The chart illustrates the performance-attribution analysis of a hypothetical controversy-exclusion portfolio (ACWI IMI ex 0-1) relative to the MSCI ACWI IMI Index, using the MSCI Global Equity Factor Model. Source: MSCI ESG Research

Our analysis showed that style factors contributed negatively to all these portfolios. A further drill down showed that the size factor had the largest negative contribution everywhere.³ Companies with the most severe controversies tended to have larger market caps; excluding them shifted the portfolio toward smaller companies. Because large caps outperformed small caps over the sample period — reflected in a positive size-factor return — this size tilt largely explains the performance gap. The increased levels of involvement in severe controversies for large companies might be expected, given their wider operational footprint and the higher levels of scrutiny and publicity they attract.

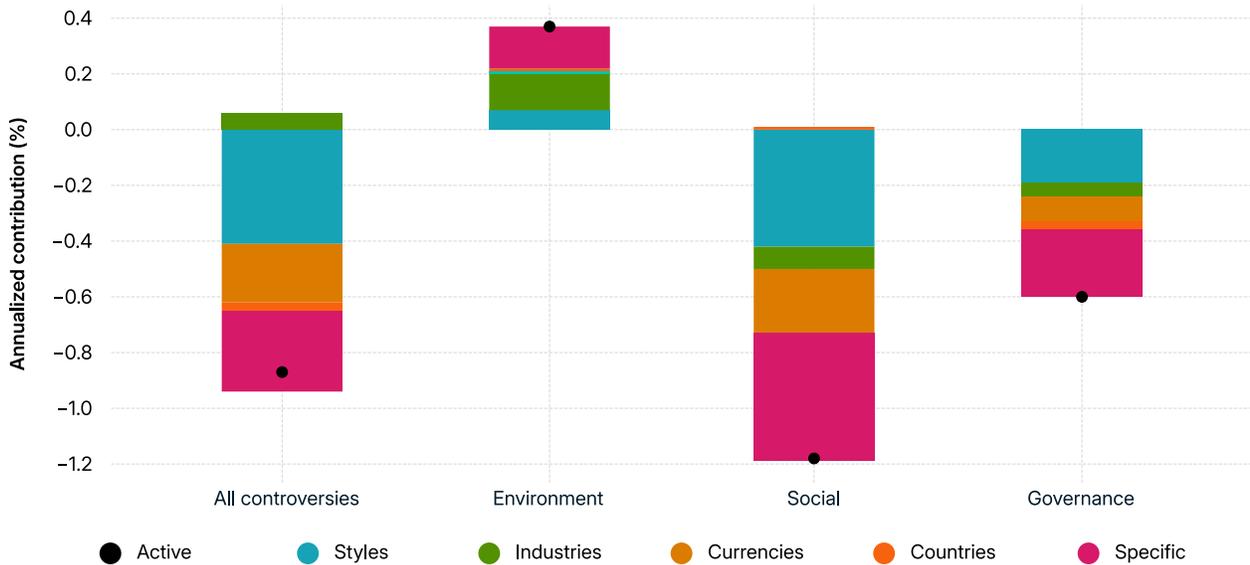
Beyond that, there was no common driver of active performance among these portfolios. For example, industry factors contributed significantly to performance in portfolios in which governance and overall

³ The size-factor exposure is positively related to the market capitalization of the company. It is calculated as the standardized value of the log of market capitalization.

controversies were excluded. By contrast, for portfolios that excluded environmental and social controversies, the stock-specific factor contributed the most.

The following chart shows the contributors to active performance of broad-exclusion portfolios. Here, except for environmental controversies, all portfolios underperformed. This underperformance was largely driven by style and currency factors, and contributions from stock-specific returns. The style contribution profile was similar to the targeted-exclusion portfolios, but on a larger scale: The size factor again had the largest negative contribution, still owing to the small-cap-tilt of the portfolios.

Performance attribution of the broad-exclusion portfolios vs. the MSCI ACWI IMI Index



Data from Jan. 30, 2015, to Dec. 31, 2024. The chart illustrates the performance-attribution analysis of a hypothetical controversy-exclusion portfolio (MSCI ACWI IMI Index ex 0-4) relative to the MSCI ACWI IMI Index, using the MSCI Global Equity Factor Model. Source: MSCI ESG Research

The outperformance of the environmental-controversy portfolio was notable — recall that this portfolio had the highest IR. All factor sources, as well as stock-specific returns, were positive. The style profile changed a little compared to the targeted exclusion: The portfolio had a significant positive contribution from the beta factor due to its higher average beta.

On average, during the study period, there were 183 companies with a 0-4 environmental-controversy score in the MSCI ACWI IMI Index. By contrast, there were 918 companies with a 0-4 social-controversy score. This ultimately resulted in a smaller number of companies being excluded from portfolios based on environmental controversies, and a larger number of companies being excluded from portfolios based on social controversies.

It is interesting to note that for the targeted-exclusion portfolios in the chart on page 11, idiosyncratic performance was positive except when social controversies were excluded, while for the broad-exclusion portfolios most idiosyncratic contributions were negative. This is in line with the hypothesis

that the most severe controversies might still serve as leading risk indicators for more repricing of risk to come, even after the controversy occurred, while for the broader universe of controversies this may not be the case.

Asset-level return contribution analysis

Next, we illustrate how factor models can be used to drill down even further into the active performance of portfolios. We show two examples here: the broad-environmental-exclusion portfolio as an example of outperformance and the targeted-social-exclusion portfolio as an example of underperformance. We then analyzed stock-specific contributions at the individual-asset level.

In the two charts on page 14, we sorted all stocks by descending average active weight across the analysis period and plotted the cumulative stock-specific contributions to understand whether exclusions and the associated over- and underweights added value. We also listed the top and bottom five stock-specific contributions. We found that both approaches led to mixed outcomes.

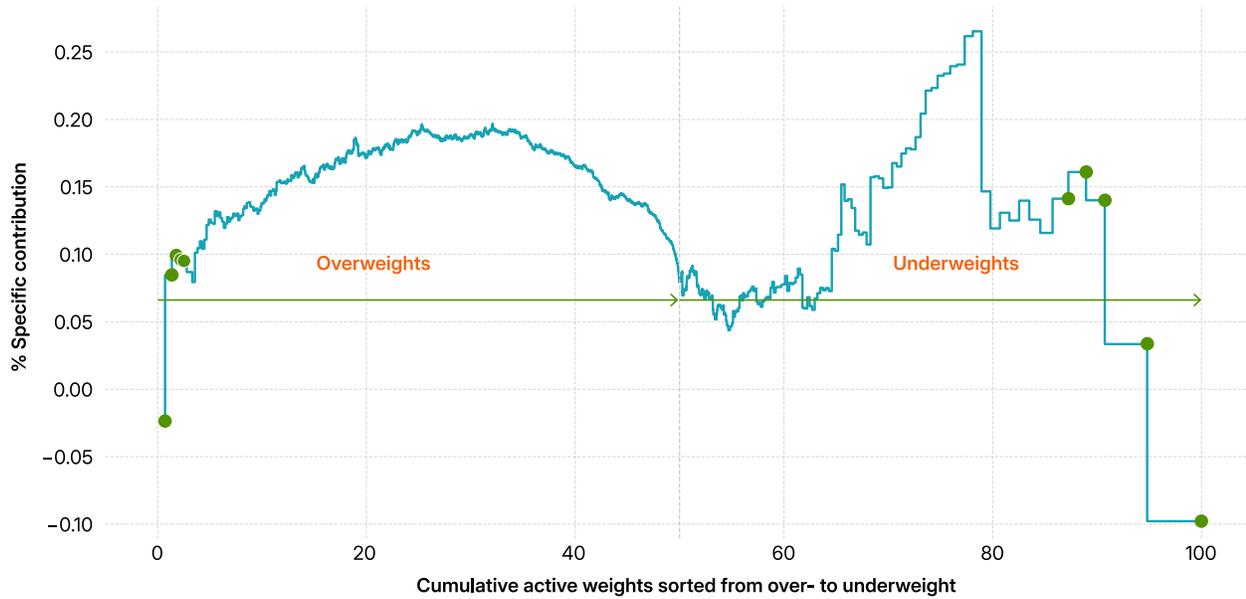
Our detailed analysis showed that in the underperforming example (targeted social exclusion) we excluded Apple Inc., Amazon.com, Inc. and Meta Platforms, Inc. (all three representing large weights in the MSCI ACWI IMI Index). All three outperformed during the study period. This led to a significant negative stock-specific contribution to the portfolio, reversing the overall positive contributions from the rest of the stocks. Excluding the impact of those three firms, the overall stock-specific contribution would have been 0.16% (the fourth green dot from the right on the first chart on page 14).

On the other hand, in the outperforming example (broad environmental exclusion) the largest over- and underweights differed notably from the underperforming example. In this case, we excluded Exxon Mobil Corp. that had a negative stock-specific return, which resulted in a large positive contribution to portfolio return. At the same time, we overweighted Microsoft Corp., Amazon and Meta due to their lack of environmental controversies, which also helped portfolio performance because of their positive stock-specific returns.

In conclusion, this factor- and stock-specific analysis highlights that a simple exclusions-based approach is affected by two phenomena. First, if the excluded stocks tend to have certain tilts in their characteristics, such as their size, beta or industry membership, consistent systematic contributions can arise, even if the tilts are small. Second, in a portfolio that is built out of a parent universe that is concentrated, the outcome can be significantly affected by the individual performance of large stocks, even if the exclusion is relatively targeted.

For an investment strategy focused on stock selection, only the first effect may come as somewhat unexpected, whereas for a more factor-focused strategy, the second point could be considered as an unwanted bet.

Specific return contribution of portfolio with targeted exclusion of companies with social controversies vs. MSCI ACWI IMI Index



Data from January 2015 to December 2024. The chart illustrates the cumulative specific contributions of securities, sorted by their average active weights (overweights on the left side, underweights on the right side). Source: MSCI ESG Research

Specific return contribution of portfolio with broad exclusion of companies with environmental controversies vs. MSCI ACWI IMI Index



Data from January 2015 to December 2024. The chart illustrates the cumulative specific contributions of securities, sorted by their average active weights (overweights on the left side, underweights on the right side). Source: MSCI ESG Research

Fundamental performance

In this final section, we focus on the potential effects of controversies on company fundamentals, such as earnings growth. The MSCI ESG Controversies framework is designed to identify companies facing reputational risks arising from alleged or confirmed negative environmental, social or governance impacts. ESG-controversy scores serve as indicators of potential operational and governance vulnerabilities rather than as direct reflections of near-term market risks. These controversies, ranging from isolated events like environmental incidents or regulatory violations to persistent operational issues such as protracted labor disputes or ethical misconduct, may signal deeper, structural risks to a company’s long-term stability and relationships with stakeholders.

To evaluate whether controversy events correlated with future financial outcomes, we conducted a monthly analysis over a five-year period from December 2016 through December 2021. In each month, companies within the MSCI ACWI IMI Index were categorized into two groups:

- 1 Companies that lost their green controversy flag in the previous month (see table below)
- 2 All other companies

For each company, we calculated the annualized trend in earnings-per-share (EPS) growth over the subsequent three years, then calculated the median growth rate for each group.⁴ This approach assessed whether a deterioration in an ESG-controversy score was associated with lower bottom-line growth over the following three years, compared to all other companies. The analysis was performed using the overall ESG-controversy score as well as with each of the individual pillar scores.

As the table shows, the sizes of the two groups differed significantly. Losses of environmental green flags were relatively infrequent, with nearly half of the months in the analysis containing no such events. To ensure meaningful comparisons, we included only months in which at least one company experienced a downgrade resulting in the loss of the green flag.

Number of events entailing the loss of the green flag, by index and controversy type

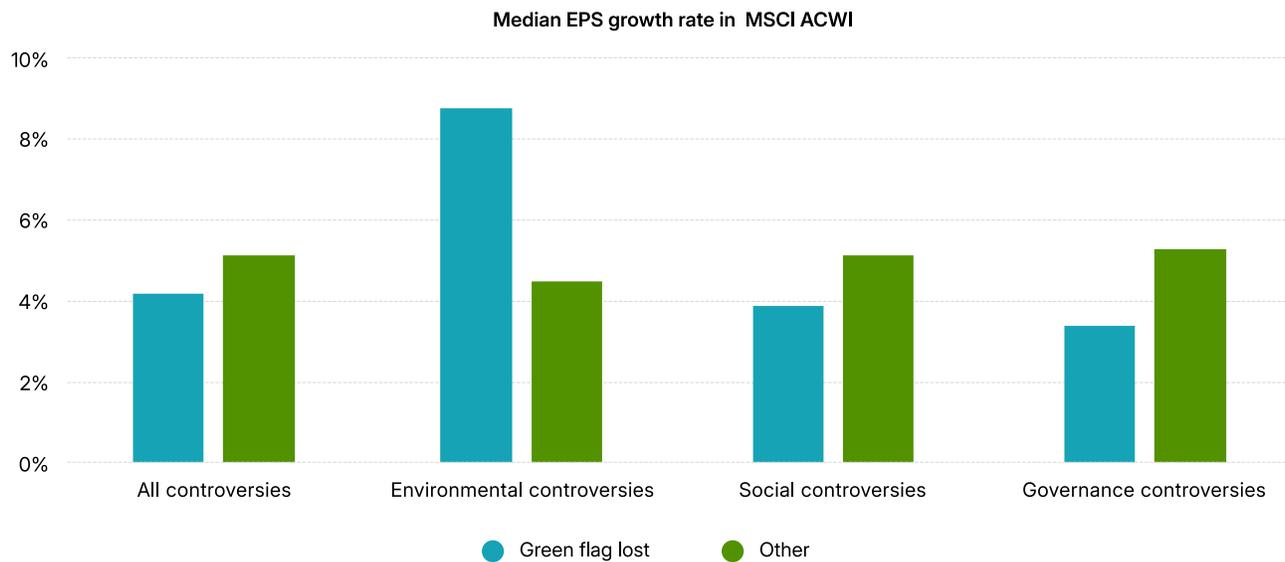
| Score | Green flags lost |
|-------------------|------------------|
| All controversies | 598 |
| Environmental | 57 |
| Social | 521 |
| Governance | 354 |

Data from December 2016 to December 2021. Source: MSCI ESG Research

⁴ The median was taken instead of the simple mean to reduce the effect of outliers that can be significant in groups with only a few stocks, as is the case with controversies leading to the loss of the green flag.

To assess the typical impact of controversies on subsequent earnings growth, we applied a two-step approach. First, for each month we calculated the median of three-year EPS growth rates in both controversy categories. We then took the median of these monthly values for both categories. This approach allowed us to compare the typical growth rate of a company that lost its green flag to that of all the other companies in our historical dataset. As our next chart shows, companies that lost their green flag generally exhibited slower earnings growth, except in the environmental category.

Lower subsequent 3-year earnings growth associated with loss of green flag due to social, governance or all controversies in the MSCI ACWI universe



Data from December 2016 to December 2021. Source: MSCI ESG Research

Because significant controversies are rare, interpreting their impact requires caution. Using median values mitigates the influence of outliers, which is particularly important for low-frequency events such as environmental controversies. Nonetheless, the actual effect of controversies on EPS growth has varied significantly across companies and events.

For example, in the three-year period following the loss of a green flag, median EPS growth rates ranged from -37% to +37%, compared with a range of -5% to +14% for the other companies. This variation underscores that while controversies may be linked to lower earnings growth, other factors also play a significant role in driving company results.

Conclusion

Our study confirms and refines earlier evidence on controversy-based exclusions in global-equity portfolios. Removing the most severe cases (scores 0–1) produced a slight improvement in financial performance. By contrast, broader exclusions (scores 0–4) generally raised the portfolio tracking error and eroded risk-adjusted performance. This outcome is consistent with the diversification-loss argument in prior research.

Factor attribution shows that severe controversies often cluster in large-cap stocks. Excluding them tilted the portfolio toward smaller firms and drove most style effects. Stock-specific analysis further reveals that idiosyncratic returns of a handful of mega caps can dominate overall results. We also found that historically, controversies in large-cap stocks were typically followed by smaller earnings growth periods — with the exception of environmental controversies.

For investors, these findings suggest that targeted exclusions focused on the most severe controversies may offer a way to align with responsible investing principles without materially compromising performance. Broader exclusions could, however, introduce unintended style biases and tracking error, requiring careful evaluation of the trade-offs between ethical considerations and portfolio efficiency.

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Appendix

Average monthly number and weight of controversy scores per controversy type

| Controversy type | Score bucket | Average count | Average weight |
|-----------------------------|--------------|---------------|----------------|
| All controversies | 0-1 | 311 | 23 |
| | 2-4 | 894 | 32 |
| | 5-10 | 7,491 | 45 |
| Environmental controversies | 0-1 | 55 | 3 |
| | 2-4 | 127 | 7 |
| | 5-10 | 8,480 | 90 |
| Social controversies | 0-1 | 233 | 20 |
| | 2-4 | 685 | 29 |
| | 5-10 | 7,744 | 50 |
| Governance controversies | 0-1 | 85 | 7 |
| | 2-4 | 350 | 24 |
| | 5-10 | 8,226 | 69 |

Data from Jan. 31, 2015, to Dec. 31, 2024. Source: MSCI ESG Research

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