

Calvert's approach to ESG data and the creation of Custom Composite Indicators

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- ④ Research out of the Calvert Institute supported the development of a suite of Custom Composite KPIs, which aggregate data across five ESG data vendors and use proprietary materiality factors to tilt scores toward data most relevant to predicting equity upside among comparable companies.
- ④ The KPIs are now used to evaluate issuers' ESG performance and generate investment insights.
- ④ Ongoing review of the ESG data landscape and analysis of financial materiality allow the Calvert Research System to incorporate what we consider the most relevant information.



I. Approach overview

Calvert's ESG research is differentiated by its focus on financially material ESG issues, or ESG issues that present risks and opportunities that may significantly impact a company's profitability, valuation or access to capital. This strategy is supported by research on the relationship between ESG factors and financial performance, including a 2016 Harvard Business School study, which found that firms focused on material sustainability¹ issues achieve stronger risk-adjusted market returns than firms that focus on immaterial sustainability issues.

These concepts have long been incorporated² into Calvert's ESG investment research process, in which key performance indicators (KPIs) are used to measure companies' performance on material environmental, social, and governance (ESG) themes. These analyses are performed at the subindustry (e.g., "peer group") level to facilitate a relative comparison between companies that face similar ESG risks and opportunities. However, there are a host of challenges that present themselves when utilizing ESG data from a variety of sources that have been outlined in recent work from the Calvert Institute ("Exploring ESG Data: A Deeper Understanding").

To address these challenges, Calvert has undertaken a project, in partnership with financial data science firm Sociovestix Labs, to develop a set of proprietary composite ESG KPIs, known as the Calvert Custom Composite Indicators (CCIs) across a selection of key ESG themes.

Calvert's CCIs aggregate ESG data from a variety of third-party data vendors to develop a maximum available data set and then weight toward constituents most highly correlated with equity upside to arrive at a proprietary ESG score for a given issuer and ESG theme.

This approach enables the combination of differing coverage universes between third-party vendors, resulting in greater scoring coverage, while ensuring alignment with financial materiality in the measurement of performance on ESG themes. The following table provides a list of the themes we have focused on to date. Note that while Corporate Ethics & Behavior is typically modeled under the Governance Themes category, this project is aimed primarily at assessing the materiality of E and S factors. Materiality of Corporate Governance factors has been reviewed separately, to take into account geography-based differences in governance practices and norms.²

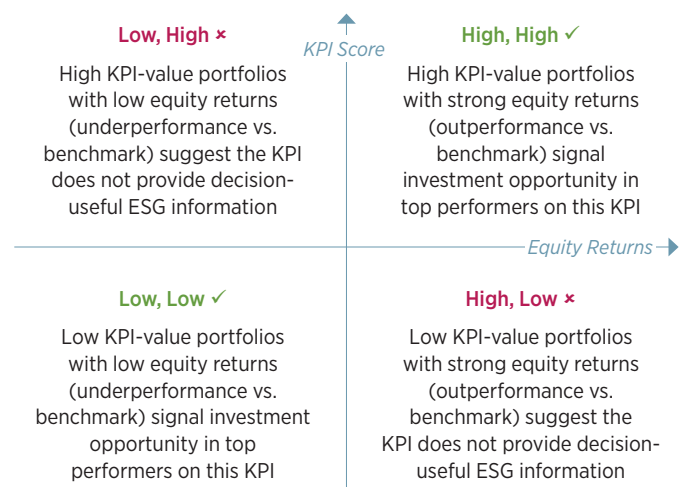
Environmental Themes	Social Themes*
Biodiversity & Land	Employee Health & Safety
Overall Risk Management	Human Capital & Labor Management
Climate & Energy	Privacy & Data Security
Packaging & Electronic Waste	Product Safety & Integrity
Pollution & Waste	Supply Chain Labor
Supply Chain	Stakeholder Relations
Water	Other Social Opportunities
Other Environmental Opportunities	Corporate Ethics & Behavior*

II. Custom Composite Indicator creation

As the Calvert CCIs have been developed to measure performance on the key ESG themes already identified as material across various subindustries, the CCIs have been designed to replace or complement individual KPIs in the Calvert research process. This enables the use of a range of vendor data in a single indicator while focusing only on the data sources providing the best materiality signals for each industry and theme.

The methodology employed to develop the CCIs includes data quality testing, transforming all KPIs to a comparable scale, mapping indicators to ESG themes, testing indicator materiality at the subindustry level and constructing CCIs for each issuer.

Calvert identified over 700 KPIs from five data vendors that met quality standards and were available with sufficient data history. Each KPI was then assigned to one of 16 ESG themes used within the Calvert research process based on indicators' underlying definitions and vendor classifications. These KPIs were then assessed to determine their relationship to company financial performance. Using a proprietary econometric model that controls for multiple geographic, sector, and market factors, equity returns for single-factor portfolios were modeled for each KPI across a range of score values and compared against the returns of a global benchmark portfolio. The results were then evaluated to determine which KPIs provide decision-useful information for ESG investors. The below graph highlights Calvert's process for interpreting model results:



As demonstrated above, statistically significant alignment of KPI score performance and financial performance, in both positive and negative directions, provides a meaningful signal to investors, while divergence suggests the KPI returns little decision-useful information related to ESG. Using these results, Calvert assigned a 'materiality factor' to each KPI tested, indicative of the strength of each indicator's association with equity upside.

*Corporate Ethics & Behavior is typically modeled under the Governance Themes category. However, this project is aimed primarily at assessing the materiality of E and S factors. Materiality of Corporate Governance factors has been reviewed separately, to take into account geography-based differences in governance practices and norms. For more information see additional research from the Calvert Institute.

¹Khan, Mozaffar, George Serafeim, and Aaron Yoon. "Corporate Sustainability: First Evidence on Materiality." *The Accounting Review* 2016 91:6, 1697-1724.

²For more information see Daniel Rourke and Hellen Mbugua, "How corporate governance factors can influence financial performance" from the Calvert Institute.



CCIs were then constructed for each issuer by weighting all available constituent KPI values based on their corresponding materiality factors, with a materiality factor threshold applied to ensure inclusion of only KPIs that meet a desired level of materiality. Calvert's research process allows for the adjustment of the threshold for KPI inclusion, allowing analysts to balance the goals of achieving high materiality and broad coverage across global issuers.

Coverage

As an investor across the global capital markets, wide coverage in our ESG research is required as we seek to create diversified portfolios. In addition to isolating financially material KPIs in the CCIs, we have enabled broader coverage of global companies in our ESG models since the composites can be composed of data from a range of sources for each issuer.

Average coverage across all themes and all company sizes is about 86% of the global universe of companies, with robust coverage of global large- and mid-cap companies across most themes. As expected, coverage is lower for some themes for small-cap firms, due to less data availability. As the materiality threshold is increased, a coverage decline may also indicate that a theme is more important for fewer industries, such as privacy and data security.

The path forward

The proliferation of ESG data continues to accelerate, but it's often difficult to assess what vendor is providing the most valuable data for investors. The CCIs enhance Calvert's research by providing a comprehensive and systematic way to measure the quality of incoming vendor data, specifically its relationship to equity price movements. By incorporating the CCIs in our modeling, Calvert employs financial data science to focus our investment decisions and engagement work on companies that we believe are well positioned to drive long-term value for shareholders and stakeholders alike. Going forward, Calvert will continue to leverage the CCI suite and materiality factors to identify sector-level emerging ESG themes that inform investment decision-making, as well as to assess the ever-evolving landscape of ESG vendors and data sets. With these tools and other proprietary KPIs and qualitative insights, Calvert remains focused on improving our understanding of financial materiality within each sector and how to best measure ESG performance.

Exhibit A

Coverage by theme and materiality threshold

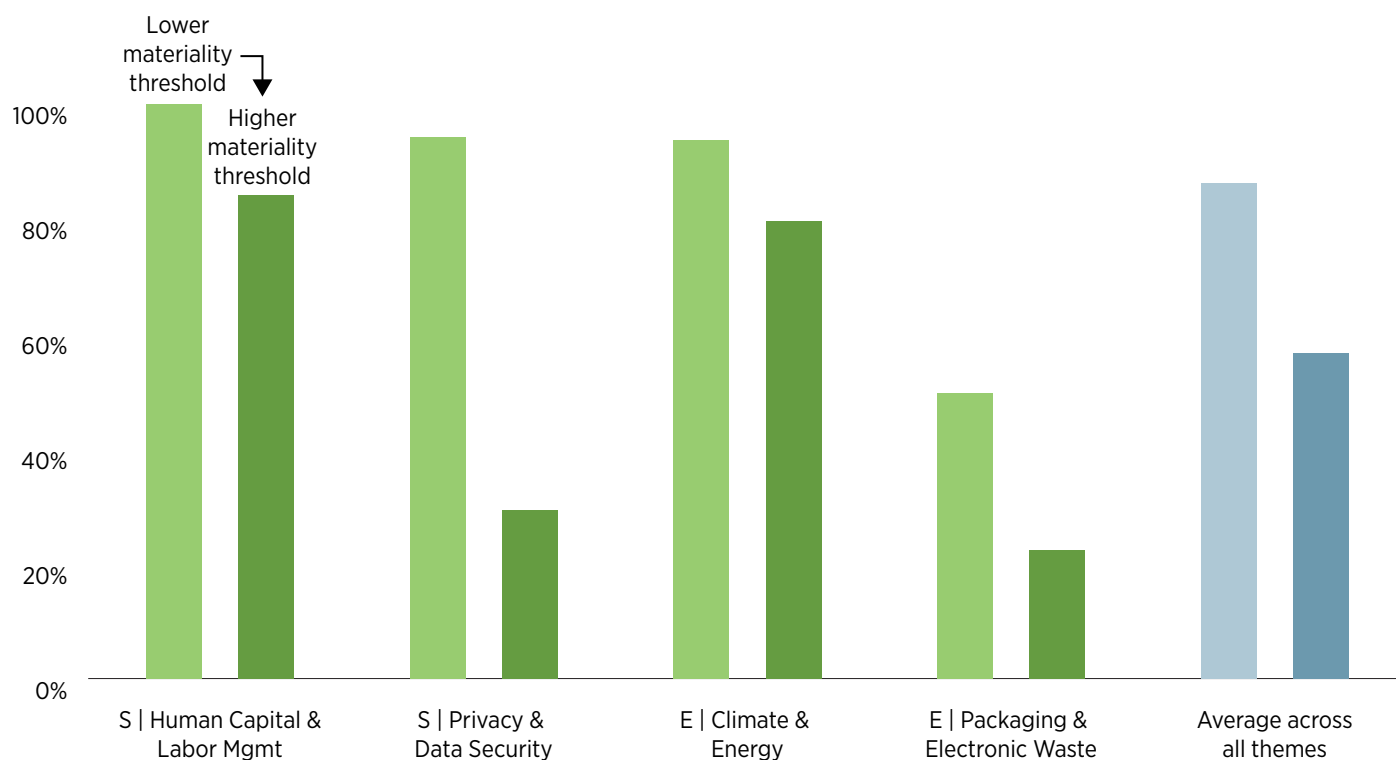


Figure 1: CCI coverage by materiality threshold in four themes – Human Capital & Labor Management (S), Climate & Energy (E), Privacy & Data Security (S) and Packing & Electronic Waste (E). Sources: Calvert Research and Management, Sociovestix Labs



Important Additional Information and Disclosures

Source of all data: Calvert as of December 31, 2020, unless otherwise specified.

Investing involves risk including the risk of loss. There is no guarantee that any investment strategy, including those with an ESG focus, will work under all market conditions. Investors should evaluate their ability to invest for the long-term, especially during periods of downturn in the market.

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