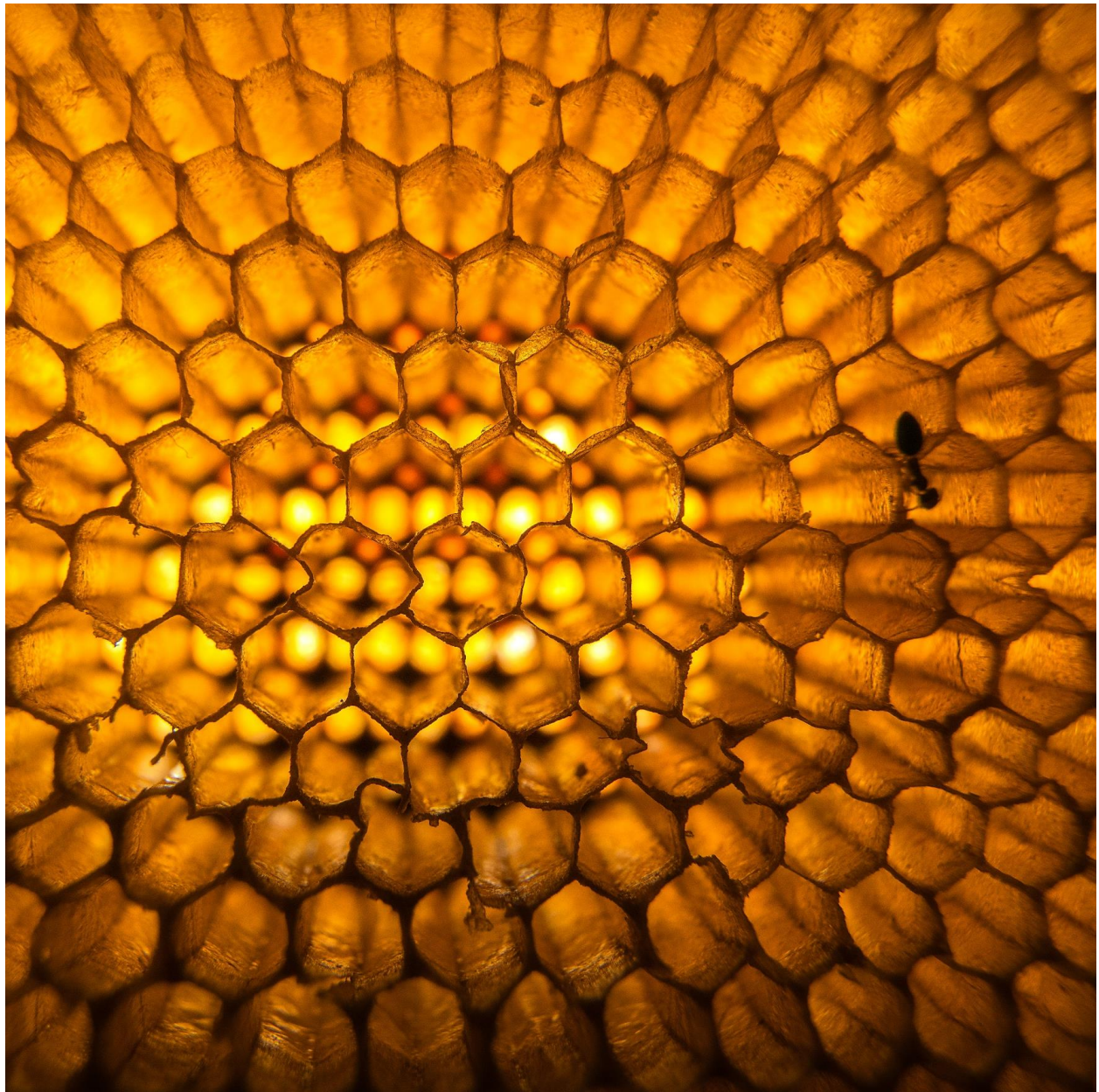


MATERIALITY MATTERS



TARGETING THE ESG ISSUES THAT IMPACT
PERFORMANCE—THE MATERIAL ESG SCORE



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Materiality matters

Targeting the ESG issues that impact performance — the Material ESG Score

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In 2018, Russell Investments developed a new way to measure a company's ESG (environmental, social and governance) score. Drawing on metrics developed by industry leaders Sustainalytics, MSCI, and SASB (Sustainability Accounting Standards Board), our Material ESG Score identifies and evaluates those issues that are financially important to a company.

The material score can be used to differentiate between companies in a way that a traditional aggregated ESG score does not facilitate. It allows us to distinguish between companies who score highly on ESG issues that are financially material to their business, from those who score highly on issues that are not financially material to their business. Our evidence suggests that Russell Investments' Material ESG Scores are better predictors of return compared to traditional ESG scores.


Bottom line: Not all ESG issues matter equally

The relevance of ESG issues varies industry to industry, company by company. For example, fuel efficiency has a bigger impact on the bottom line of an airline than it does for an investment bank. So, rather than adopt a one-size-fits-all approach, we worked to develop an ESG scoring system that is specific to a company and its profitability.

Why? Our research found that traditional ESG scores are composed of a large number of issues that are not material. When we conducted our original research in 2018, 66% of all securities in the Russell Global Large Cap Index universe had less than 25% of the data items in the traditional ESG score that were considered material.

Financial materiality is not the only reason to look at ESG information. Double materiality, or going beyond financial materiality to consider broader environmental and stakeholder materiality, is critically important. Rather than ignoring other issues, we think it's time to move beyond ambiguous "ESG" labeling toward more explicit and transparent terminology. Our Material ESG Score is tailored to financial materiality – it's explicit and transparent in that endeavor. To measure materiality in the other direction – how is a company impacting the world outside – we believe frameworks such as the European Union's Principal Adverse Impact indicators offer a useful starting point.

To generate our in-house Material ESG Score, we leveraged data from ESG data providers alongside the industry-level materiality map developed by SASB. Since our original research in 2018, the concept of materiality in ESG has become much more widely adopted across the industry. Here we summarize our original research as well as developments that have taken place in the years since we first released our score.

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Russell Investments' Material ESG Score methodology

Identifying which ESG sub-categories are material, and which are not

Traditional ESG scores are constructed for a variety of financial and non-financial uses. This means that a company may receive an ESG score based upon issues that are not financially material. So, to help us identify which of the many sub-categories feeding into off-the-shelf ESG scores are indeed material, we used the SASB materiality map as a guide. For example, feeding into an overall ESG score is performance on a variety of sub-categories such as labor practices, emissions, water and waste management, business ethics and so on. Those subcategories that are not identified as material are not included in our overall score for each industry.

Constructing the material scores

To construct the scores, we first standardize the underlying subcategory data. Then, we aggregate the scores of the sub-categories that are material before calculating the final material scores and scaling them into a range between 0-10, where higher scores represent stronger outcomes.

Materiality and company performance


At Russell Investments, we believe that a sound awareness of ESG factors and a robust process can help deliver strong investment returns and meet objectives over the long-term. In light of this, the next obvious question is: Can materiality help to deliver strong performance?

Kahn, Serafeim, and Yoon (2016)

A 2016 study by Khan, Serafeim, and Yoon (KSY) showed that companies with strong performance on material ESG topics outperform companies with poor performance on material topics. Exhibit 1 shows the relative returns of companies that had high performance in material issues and low performance in immaterial issues. High performance on material issues led to higher alphas¹ than low performance (quadrant 1 vs. 2 and quadrant 4 vs. 3).

Interestingly, after controlling for high performance in material issues, a portfolio of companies scoring low on immaterial issues generated higher alpha than the portfolio of high performance on immaterial issues. In other words, spending resources on immaterial issues appears to have been value-detracting.

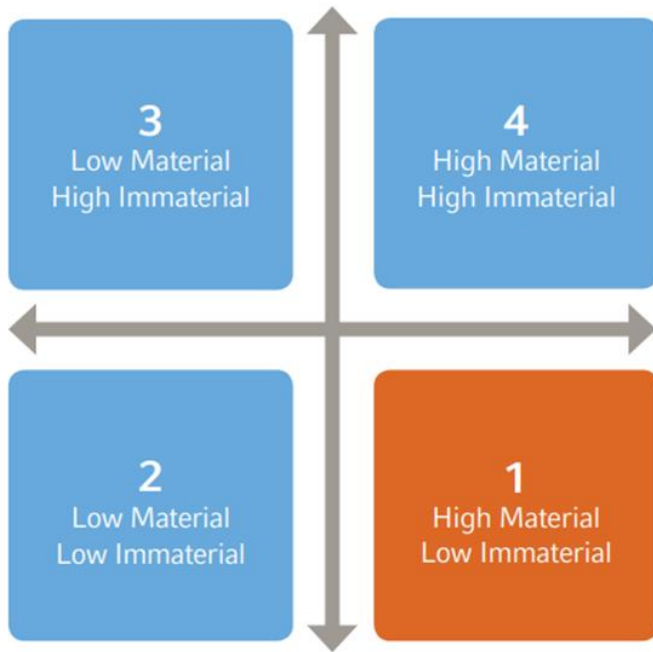
The purpose of our original research was to see if we could replicate this finding using a new data set, time horizon, and mapping.



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Exhibit 1: Bucket companies according to performance on material and immaterial categories

(Kahn, Serafeim, and Yoon, 2016) U.S. Large Cap Universe, 1991-2013



FOUR FACTOR ALPHAS ² (1991-2013)	ANNUALIZED ALPHA	DIFFERENCE IN ALPHAS
1. High Material, Low Immaterial	6.01%	
2. Low Material, Low Immaterial	-2.9%	8.90%***
3. Low Material, High Immaterial	0.60%	5.41%***
4. High Material, High Immaterial	1.96%	4.05%***

Source: Khan, Serafeim, and Yoon (2016) and Russell Investments. Alphas refer to portfolio returns regressed on four-factor models including Mkt-Rf, SMB, HML, and UMD. ***, **, * refer to significance at the 1%, 5%, and 10% levels respectively.

Can our material score be used to impact performance?

The study by Khan, Serafeim, and Yoon had many important implications for our research and indicates that spending resources on immaterial issues is potentially value detracting. Going back to our original example, learning that fuel efficiency is a poor signal for future outperformance of an investment bank does not imply that the same is true for an airline. This explains why using fuel efficiency as a signal across a universe could lead to inconclusive results, even though it may be a valid signal for a subset of the universe.

In an effort to evaluate whether our scores could indeed be used as a return indicator, we back-tested them between December 2012 and June 2017 on a wider universe than Khan, Serafeim, and Yoon used - the Russell Global Large Cap Index. This test found that material issues are indeed a promising signal for informing investment decisions based on ESG performance. Investors could potentially gain an additional 22 basis points (versus using the traditional ESG score) by refining the signal to those that have higher material ESG characteristics.

Investors could potentially gain an additional 22 basis points ... by refining the signal to those that have higher material ESG characteristics.

Exhibit 2 Material and Immaterial ESG Issues

(RGI Global LC, Dec 2012 – June 2017)

ANNUALIZED DIFFERENCES IN FOUR FACTOR ALPHAS (HIGH – LOW QUINTILES)

Material ESG Issues	1.19%**
Immaterial ESG Issues	0.30%
Traditional ESG Scores	0.97%*

Source: Source: Russell Investments. Alphas refer to high minus low portfolio returns regressed on four-factor models including Mkt-Rf, SMB, HML, and UMD. ***, **, * refer to significance at the 1%, 5%, and 10% levels respectively.

Consistent with Khan, Serafeim, and Yoon, we found that the difference between high and low performers on material issues is larger than immaterial issues or the traditional scores. This suggests that material issues are the most promising signal among those we consider here for informing investment decisions based on ESG performance. The difference in alphas is statistically significant for material issues, but not for immaterial issues.

Enhancing the Material ESG Score

Following our original research, the industry adopted the concept of materiality more widely. Our data provider overhauled their methodology, and the Sustainalytics Accounting Standards Board updated the Materiality Map. Following these developments, we released a major update to our Material ESG Score in 2019. In addition to incorporating new data, we took the opportunity to make several important enhancements including:

- 1 The addition of a corporate governance score for all companies
- 2 More explicit emphasis on forward-looking information where available, and
- 3 Addition of MSCI data as an input to the model

Summary of data changes: Sustainalytics released their own score enhancement

Although we use multiple providers for ESG data, the data feeding into the first release of our Material ESG Score was all sourced from Sustainalytics. Shortly after we released our Material ESG Score, Sustainalytics released an enhancement of their own, called the Risk Rating, representing a major overhaul to the way Sustainalytics scores and evaluates companies. The new scores:

- a. Focus on financial materiality** – this was good. The focus on materiality aligned with the approach we took in originally developing our Material ESG Score in 2017. This development begged the question: do we even still need our own scores? This is where our analysis started, asking did the new Risk Rating from Sustainalytics capture the same things as our Material ESG Score. Our analysis concluded the answer was no, the Risk Rating was not the same as our Material ESG Score. In fact, the correlation between the new Risk Rating and our Material ESG Score at the time was only -0.17. Why were the scores so different? The answer was right in the name: the new Risk Rating focused on risk.

Following our original research, the industry adopted the concept of materiality more widely.

- b. **Focus on risk** – while there is nothing wrong with taking a risk-based approach to ESG integration, our approach to thinking about ESG from a materiality standpoint is not only about risk but also opportunities.
- c. **New data items from Sustainalytics that align with the SASB framework** – compared to when we initially mapped the Sustainalytics data set to the SASB mapping, new data became available that better aligned with the SASB indicators, which was encouraging. Some examples of alignment we found include the following topics:

Exhibit 3

MATERIALITY TOPIC	INDICATORS AVAILABLE IN 2017	INDICATORS AVAILABLE IN 2019
Competitive behavior	0	3
Systemic risk management	0	5
Data privacy & security	1	4

Summary of methodology enhancements

The update brought on by changes in the underlying data gave us the opportunity to incorporate several improvements that were identified since releasing the Material ESG Scores two years before. The methodology enhancements included:

1 Incorporation of a corporate governance score

- a. We found our original materiality score based on the SASB framework to be weak on corporate governance. SASB themselves acknowledged that they intentionally did not seek to fully represent the "G" aspect of "ESG" in their framework since this was an area that has already been covered extensively by other frameworks. Our solution was to supplement the SASB framework with an additional pillar of corporate governance for all companies.
- b. For the governance metric, we use a comprehensive corporate governance assessment from Sustainalytics that includes board and management quality, board structure, shareholder rights, remuneration, audit and financial reporting, and stakeholder governance.
- c. Reflecting our belief that good corporate governance is important regardless of industry, the issues feeding into the final Material ESG Score are now those identified by SASB (which vary by industry) plus corporate governance (which is a pillar for all companies).

Our solution was to supplement the SASB framework with an additional pillar of corporate governance for all companies.

2

Replacing Sustainalytics assessments with raw environmental data, where available

- a. Moving to a model where raw data can be used from a variety of providers allows us to capture unfiltered data, with a quicker time from disclosure to incorporation in the score
- b. One of the fundamental shortfalls with ESG data is data quality. In this new model, we are not beholden to one provider for all metrics but can source data from a variety of providers
- c. For this release both carbon emission data and water usage data will be moved to MSCI, where available

3

Addition of a forward-looking adjustment

- a. One of the major criticisms with the current state of ESG data is the focus on backward-looking information. A natural area to seek enhancement is addressing the question of what, if anything, can we do to make our assessment more forward-looking.
- b. What drives a forward-looking view on a company's future sustainability varies by industry. Fortunately, our framework is already built to be industry-specific.
- c. We identified 3 pillars where forward-looking information is most relevant, and where data is available, and incorporated a forward-looking score to these pillars.

So, does materiality matter? Yes.

Russell Investments' Material ESG Scores are better predictors of return

Ultimately, our in-house score allows us to differentiate between companies in a way that the traditional score does not facilitate. It allows us to clearly distinguish between companies who score highly on ESG issues that are financially material to their business, from those who score highly on issues that are not financially material to their business. Our research suggests that the Russell Investments Material ESG Scores can provide insights beyond traditional ESG scores.

Push beyond a one-size fits all approach Financial materiality is not the only reason to look at ESG information. Double materiality, or going beyond financial materiality to consider broader environmental and stakeholder materiality, is critically important. Rather than recommending ignoring other issues, we think it's time to move beyond ambiguous "ESG" labeling toward more explicit and transparent terminology. Our Material ESG Score is tailored to financial materiality – it's explicit and transparent in that endeavor.

Ongoing research to ensure robustness and risk management

We continue to use the Material ESG Score in the Russell Investments' Decarbonization Strategy as part of our ongoing integration of the score. The Russell Investments' Material ESG Score represented a strong development in our understanding of ESG performance drivers and continues to provide an excellent framework for incorporating our latest thinking on how to measure the ESG performance of the companies in which we invest.

We continue to use the Material ESG Score in the Russell Investments' Decarbonization Strategy as part of our ongoing integration of the score.

¹ Alpha measures the difference between a portfolio's actual return and expected performance, given its level of risk

² Annualized alpha measures the fund's value-added relative to a benchmark, smoothed over a stated period. The Four-factor model used in the research refers to a combination of the Fama-French Model [adds size (SMB) and value (HML) factors to the market risk (Mkt-RF) factor in the capital asset pricing model (CAPM)] plus momentum *UMD).

QUESTIONS?

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First used: March 2018. Revised: February 2022

AI-29181-02-25