

# Incorporating ESG into US equity benchmarks

## Introduction to the Russell US ESG Indexes

September 2021

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## Overview

Investors who want to incorporate ESG considerations into a broad US market passive portfolio have traditionally had to accept a certain (often high) level of deviation from the risk and return characteristics of the underlying benchmark.

The **Russell US ESG Indexes** were designed to address this by applying Refinitiv's ESG scores into FTSE Russell's Target Exposure index methodology in order to produce an index that is still investable and performs similarly to the benchmark (more on the approach in the following section).

The indexes are suitable substitutes for the traditional benchmarks and can be used by market participants 1) to benchmark the performance of US equity funds, 2) in the creation of ETFs, structured products and index-based derivatives, or 3) as an ESG alternative for core US market cap weighted passive mandates and model portfolios.

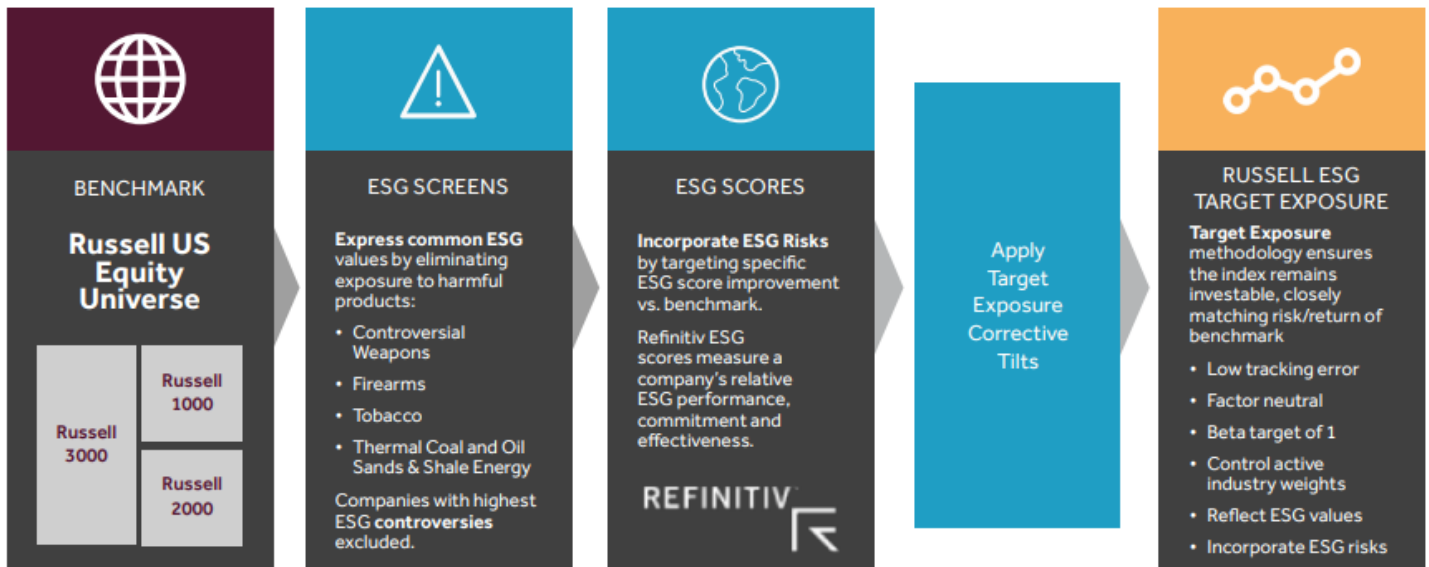
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# Index construction

This paper focuses on the Russell US ESG Enhanced methodology, which follows the sequential index construction process explained below and illustrated in Exhibit 1. It starts with the underlying benchmark universe (Russell 1000, 2000 or 3000). To align the index with common ESG values, companies involved in certain products, such as weapons and tobacco, or that have ESG controversies, are excluded. Through FTSE Russell's target exposure approach, the index targets specific ESG score improvement (10% higher than the benchmark), while maintaining a low tracking error, factor neutrality and beta close to 1.

**Exhibit 1: Russell ESG Enhanced Target Exposure index construction.**



## ESG screens

Companies in the underlying index universes are researched annually for eligibility against the screens based on publicly reported information. The screens can be broken into four groups: Controversial Weapons, Firearms, Tobacco, and Fossil Fuels. The exclusionary criteria differ depending on the product category as well as the area of involvement along the value chain, as illustrated below in Exhibit 2.

## Exhibit 2. Russell US ESG Index screening categories

PRODUCT CATEGORY		VALUE CHAIN		
		Production	Related Products & Services	Retail
 Controversial Weapons	Direct involvement in the core weapon system, or components/services of the core weapon system.	EXCLUDED	EXCLUDED	NOT EXCLUDED
 Firearms	Producers of civilian firearms, military and law enforcement small arms, key components, or deriving revenue from retail of small arms.	EXCLUDED	EXCLUDED	EXCLUDED
 Tobacco	All producers (or deriving revenue via an ownership stake of 10% or more of producers) and greater than or equal to 10% revenue from tobacco-related products & services and retail	EXCLUDED	EXCLUDED IF >10% of revenue	EXCLUDED IF >10% of revenue
 Fossil Fuels	All companies deriving equal to or more than 5% revenue from thermal coal production and thermal coal related power generation or more than 5% revenue from oil sands and shale energy extraction and/or production.	EXCLUDED IF >5% OF REVENUE	NOT EXCLUDED	NOT EXCLUDED

In addition, companies that fail a controversy screen are excluded. This assessment is made based on media screening to identify “on the ground” activities that violate the principles of the Global Compact.

These screens are applied quarterly in March, June, September and December, and a company that fails any of the screens is excluded from the Russell US ESG Indexes. Full details on the methodology and data sourcing can be found in the index [Ground Rules](#).

The results of the screens on the Russell 1000 index universe are summarized in Table 1 below.

**Table 1: Number of excluded stocks, and weight, by product category for the Russell 1000 ESG Enhanced Target Exposure Index**

	Constituent (#)	Weight (%)
Controversial Weapon	7	0.86%
Small Arms	4	0.60%
Fossil Fuel	34	2.63%
Tobacco	3	0.62%
Controversies	3	0.52%
Multiple	5	0.94%
Incomplete data	14	0.25%

Source: FTSE Russell, as of June 30, 2021. For exclusions data details and sources see Ground Rules. The Incomplete data category represents companies that have incomplete research coverage and are thus considered ineligible for inclusion.

As can be seen, 70 stocks are removed from the Russell 1000 ESG Enhanced Target Exposure index for product involvement, representing a little over 6% of the market capitalization of the benchmark. Nearly half of that is due to the Fossil fuel exclusions<sup>1</sup>, which result in 34 companies (2.63% market cap) being removed from the index. The case study section will analyze the impact this has on benchmark-relative risk/return due to the Target Exposure methodology.

## ESG scores

The Russell ESG Enhanced Target Exposure indexes incorporate ESG risks by targeting a 10% ESG score improvement versus the benchmark, using the Refinitiv ESG score. These scores are designed to transparently and objectively measure a company's relative ESG performance, commitment and effectiveness across 10 main themes<sup>2</sup> based on publicly-reported data. The scores are a data-driven assessment of companies' relative ESG performance and capacity, integrating and accounting for industry materiality and company size biases.

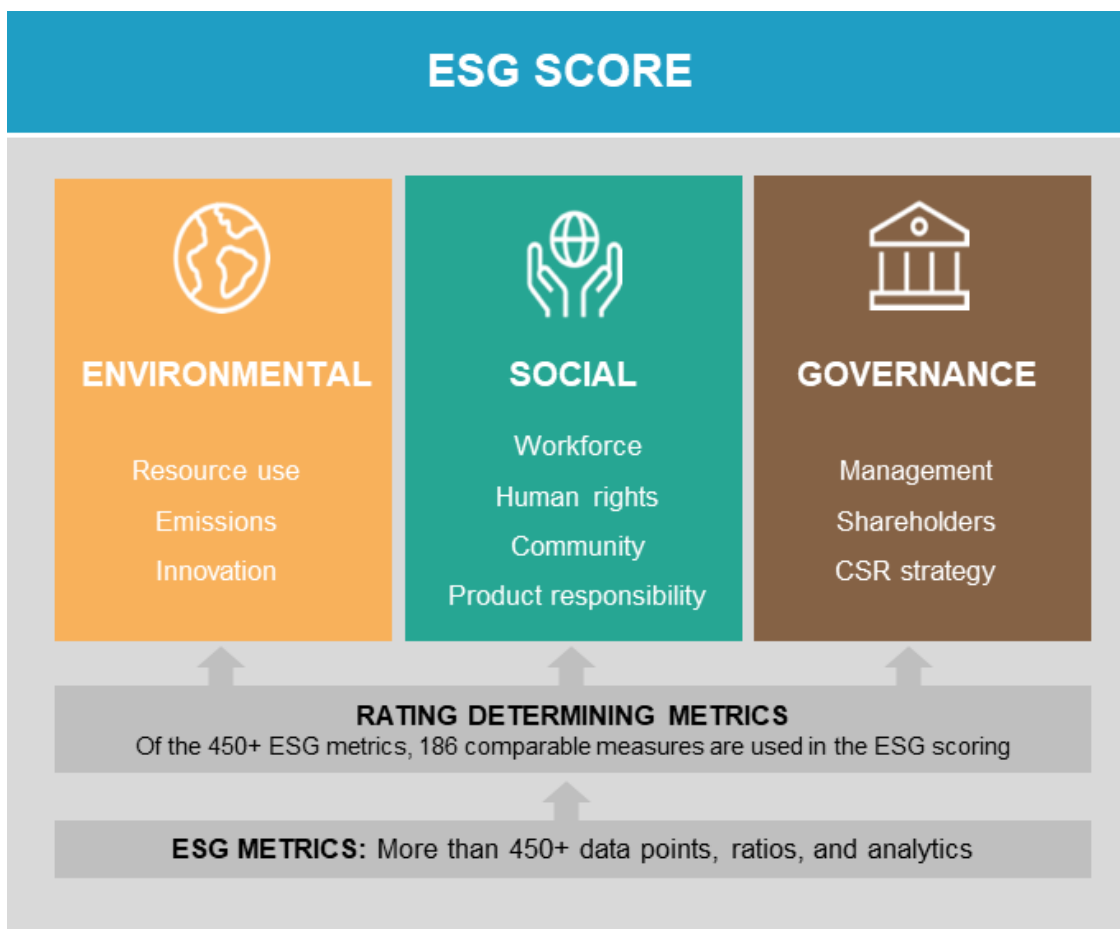
Specifically, the scores measure the company's ESG performance based on verifiable reported data in the public domain. The scoring methodology captures over 450 company-level ESG measures, of which a subset of 186 of the most comparable and material, per industry, power the overall company assessment and scoring process.

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<sup>1</sup> Fossil fuel screening definition: All companies deriving equal to or more than 5% revenue from thermal coal production and thermal coal related power generation or more than 5% revenue from oil sands and shale energy extraction and/or production.

<sup>2</sup> The Refinitiv ESG score 10 main themes are: Emissions, Environmental innovation, Resource use, CSR strategy, Management, Shareholders, Community, Human rights, Product responsibility, and Workforce. See [Environmental, Social and Governance \(ESG\) Scores from Refinitiv](#) for more details.

### Exhibit 3: Refinitiv's ESG Scores



Source: Refinitiv: [Environmental, Social and Governance \(ESG\) Scores from Refinitiv](#)

## Target Exposure methodology

FTSE Russell's target exposure approach provides a transparent mechanism for exercising complete and precise control over both investment and ESG objectives. It allows for control over tracking error, diversification, capacity, and concentration to ensure the index remains investable.

The basis of the target exposure approach is FTSE Russell's transparent tilt methodology. This methodology stems from the simple observation that one can obtain a greater degree of exposure to, say Value, than a given benchmark, by multiplying that benchmark's weights by a positive score, which varies monotonically with the Value characteristic of individual stocks.

FTSE Russell's target exposure approach neutralizes active industry exposure, while also controlling for tracking error and beta. In this case, the industry weights are controlled by imposing bands of +/- 20% of the benchmark industry weight or between (0.8 x benchmark industry weight - 5%) and (1.2 x benchmark industry weight +5%). We also impose maximum and minimum stock weights. In the case of the Russell ESG Enhanced Target Exposure indexes, we require an increase in ESG ratings of at least 10% relative to the benchmark.

One benefit of employing the Target Exposure methodology is that the tilting outcomes are transparent and therefore can support ESG-related stewardship activities and stakeholder communication. Secondly, outcomes can be enhanced as necessary. As new ESG data become available or scores in the index universe improve, the investor is able to 'raise the bar' for ESG improvement as needed.

# Case study: Russell ESG Enhanced Target Exposure Indexes

In the following section we discuss the characteristics and performance of the Russell 1000 ESG Enhanced Target Exposure Index. We are primarily interested in illustrating 1) how the screening process alters index composition and performance profiles and 2) how the target exposure methodology allows the index to maintain benchmark-like risk and return properties, in order to demonstrate that the Russell 1000 ESG Enhanced Target Exposure Index can serve as an appropriate substitute for the underlying benchmark.

## Applying screens

The Russell 1000 ESG Enhanced Target Exposure Index uses the Russell 1000 Index as the starting universe, then excludes stocks based on the product- and conduct-related screens described in Exhibit 2. The industry impact of these exclusions is shown in Table 2, which shows the number of excluded stocks, and relative market-cap weight, by industry for the Russell 1000 ESG Enhanced Target Exposure Index.

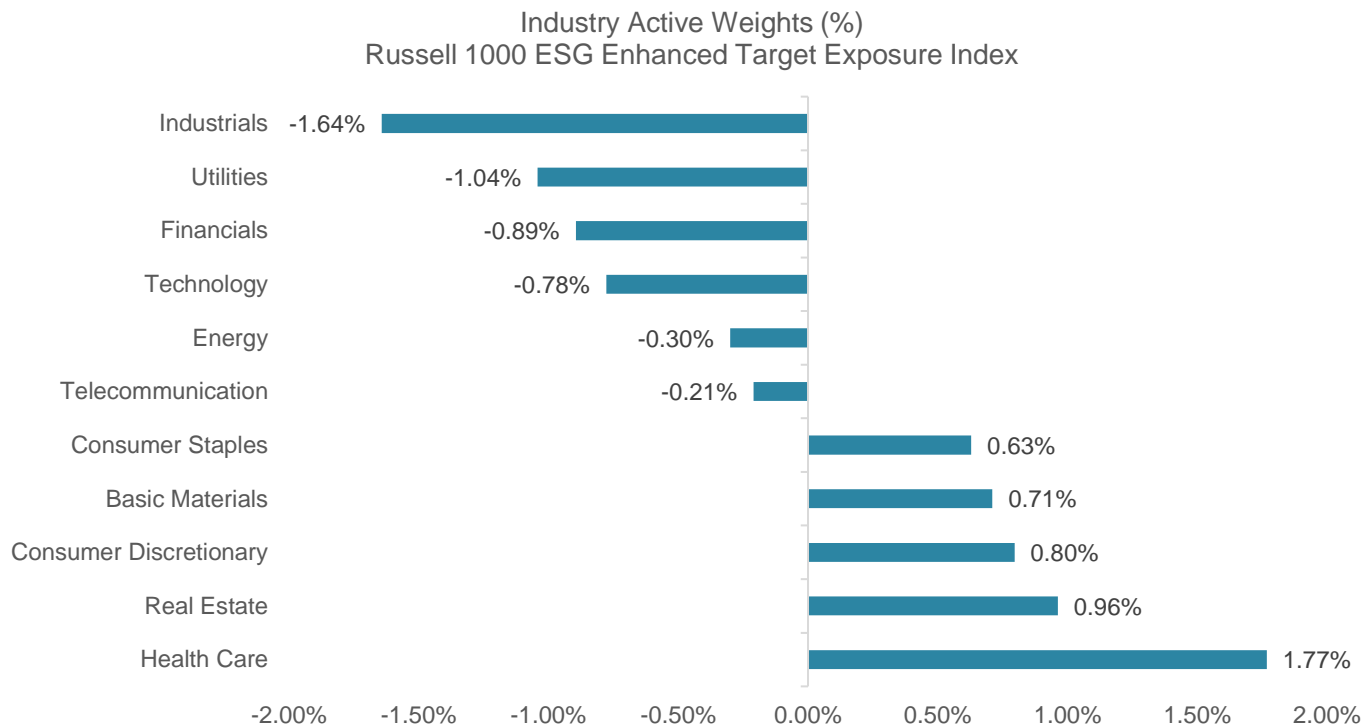
**Table 2: Number of excluded stocks, and weight, by industry for the Russell 1000 ESG Enhanced Target Exposure Index**

	Constituent (#)	Weight (%)
Basic Materials	2	0.03%
Consumer Discretionary	3	0.52%
Consumer Staples	3	0.62%
Energy	15	1.39%
Financials	3	0.55%
Health Care	3	0.04%
Industrials	15	1.80%
Real Estate	0	0.00%
Technology	5	0.07%
Telecommunications	0	0.00%
Utilities	21	1.29%

Another way to look at the impact of the exclusions is to examine the active weights for each industry in the benchmark (see Chart 1). As this indicates, in general industry weightings of the Russell 1000 ESG Enhanced Target Exposure index are fairly similar to those of the underlying benchmark.



**Chart 1: Active industry weights for Russell 1000 ESG Enhanced Target Exposure Index against benchmark**



Source: FTSE Russell. Data as of August 31, 2021.

As expected, the biggest changes are in industries most closely related to the excluded products. For example, the Energy industry goes from 36 stocks in the benchmark to 21 stocks in the resulting index. However, because of the corrective tilting in the target exposure methodology, the active energy industry weight is decreased by only 0.30%, meaning the impact of the excluded stocks is minimized. Another sector that was eliminated was Tobacco, a (small) part of the Consumer Staples industry, which in the overall process actually saw an industry overweight of 0.63%.

## Applying constraints

Several targets and constraints are applied to the Russell ESG Enhanced Target Exposure Index as illustrated in Table 3 below. Equity factors (Value, Quality, Size, Momentum, Low Volatility and Yield) are all neutralized to zero. The ESG Score target is 10% or 0.1 in the table below. Beta and industry weights are banded, as described above, and maximum and minimum stock weights are also applied.



**Table 3. Targets and Constraints for Russell ESG Enhanced Target Exposure Indexes**

Index	Active Factor Exposure Targets							Constraints					
	V	Q	S	M	LV	Y	ESG	Beta Banding	Industry	Max 2-Way T/O (%)*	Max Stock Weight (%)	Min Stock Weight (b.p.)	Review
Russell 1000 ESG Enhanced Target Exposure Index	0	0	0	0	0	-	0.1	Neutral	Banded	30	5	0.5	June and Dec

## Performance

How has the application of ESG screens and ESG scores affected performance? Over the period from December 2016 through August 2021, the Russell 1000 ESG Enhanced Target Exposure Index has outperformed the underlying benchmark's annualized gain of 18.68% by 97 basis points, with comparable volatility. The tracking error over this period remained under 1% at 0.92%.

**Table 4. Performance statistics – Based on monthly data from 2016-12-31 to 2021-08-31**

	Annualized Return (%)	Annualized Volatility (%)	Volatility Reduction (%)	Excess Return (%)	Tracking Error (%)	Information Ratio	Beta
Russell 1000	18.68	15.78					
Russell 1000 ESG Enhanced Target Exposure Index	19.65	15.49	1.87	0.97	0.92	1.05	0.98

	1 Month	3 Month	6 Month	YTD	1 Year	3 Year (pa)
Russell 1000	2.89	7.66	18.31	20.74	32.25	18.42
Russell 1000 ESG Enhanced Target Exposure Index	2.94	7.38	18.38	21.06	32.58	19.40

Source: FTSE Russell. Data based on monthly returns from December 31, 2016 – August 31, 2021. Past performance is no guarantee of future results. Please see end for important legal disclosures.

## Correlation

While any deviation from the benchmark weight will generate tracking error, we are also interested in how closely the Russell 1000 ESG Enhanced Target Exposure index moves with the underlying benchmark over time. As illustrated in Table 5 below, both correlation and beta have been very close to 1 over the last 4.5 year period.

**Table 5. Correlation and beta – December 2016 – August 2021 (USD)**

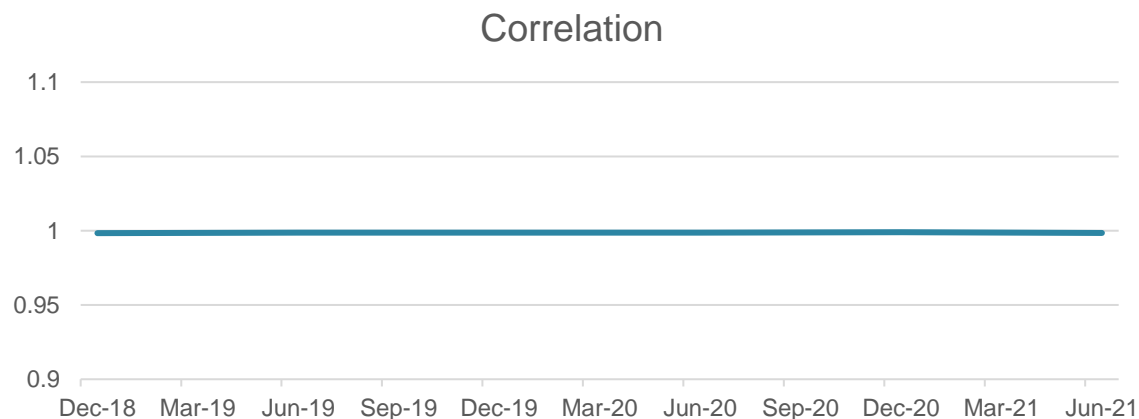
	Correlation	Beta
Russell 1000 ESG Enhanced Target Exposure vs benchmark	0.999	0.987

Source: FTSE Russell. Data based on 24-month rolling correlation and beta from December 31, 2016 through August 31, 2021. Past performance is no guarantee of future results. Please see end for important legal disclosures.

How the resulting index moves along with (or co-moves with) the underlying benchmark is an important issue for investors interested in using the Russell ESG Enhanced Target Exposure index as a substitute for the underlying benchmark. If the composition and characteristics of the two indexes differ too significantly, so may their performance patterns, which would make Russell ESG an unsuitable substitute.

While the correlation of 0.999 indicates a close co-movement of the two indexes, it is calculated over the entire period. For a better sense of the stability of co-movement, we calculated correlations over a rolling two-year period. As shown below, the correlation has remained around 0.999.

**Chart 2. Correlation – Russell 1000 ESG Enhanced Target Exposure Index to Russell 1000 benchmark (24-month-rolling window)**



Source: FTSE Russell. Data through August 31, 2021. Past performance is no guarantee of future results. Please see end for important legal disclosures.

# Summary and conclusions

The FTSE Russell ESG Target Exposure approach produces an ESG-enhanced index that performs in line with the traditional benchmark, and therefore is a suitable replacement. Once the underlying universe is screened for undesirable stocks, the index is constructed using the target exposure methodology to achieve the desired ESG and performance outcomes.

This paper used the example of the Russell 1000 ESG Enhanced Target Exposure Index to illustrate the effects of the screening and the target exposure methodology. We show that even though more than 5% of stocks are screened out, the industry weights are similar to those of the underlying index. The overall correlations between the Russell 1000 ESG Enhanced Target Exposure index and its underlying benchmarks remain extremely high, with the rolling 24-month correlations for the index staying around 0.999 over the past several years.

These high correlations, as well as the low tracking error and low industry active weights changes, should offer investors the confidence that the Russell ESG Enhanced Target Exposure index can serve as an ESG alternative to the underlying benchmark.

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