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# portfolio carbon footprint

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### • NCF - S&P 500 ex Tobacco

- Carbon footprint analysis quantifies greenhouse gas emissions (GHG) embedded within the portfolio presenting these as tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e). Comparing the total GHG emissions of each holding relative to annual revenue, gives a measure of carbon intensity that enables comparison between companies, irrespective of size or geography.
- The carbon footprint is an analysis of the GHG embedded within the portfolio. This is achieved by carrying out a carbon footprint for each individual holding encapsulating both direct and first tier indirect impacts.
- Direct emissions result from a company's own operations and include GHG emissions from boilers and company owned vehicles, emissions from any manufacturing operations and waste produced.
- First tier indirect impacts, also termed supply chain impacts, occur because of the goods or services a company procures. This includes purchased electricity, business travel and logistics.

**PORTFOLIO:**

**NCF - S&P 500 ex Tobacco**

**BENCHMARK:**

**S&P 500 Ex Tobacco**

**DATE OF HOLDINGS:**

**September 30, 2016**

**DATE OF ANALYSIS:**

**November 14, 2016**

- Each holding's contribution to the carbon footprint of the portfolio is calculated on an equity ownership basis. The carbon footprint of the fund is the sum of these contributions, normalized by revenue owned.
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## CARBON FOOTPRINT

Carbon Footprint analysis measures the carbon risks and opportunities not captured by standard portfolio analysis and presents a systematic assessment of carbon impacts relative to your benchmark

## NCF - S&P 500 ex Tobacco

### 1 Summary Information

Carbon footprint analysis was carried out on 14 November 2016 for holdings data as at 30 September 2016. The benchmark used for this analysis was the S&P 500 Ex Tobacco.

	Number of Companies	Value of Holdings (\$ mn)	Total Carbon Emissions (tCO2e)	Total Footprint (tCO2e/\$mn)
Portfolio	493	35.59	5,393	283.68
Benchmark	493	35.59	5,397	282.89

The carbon footprint of the portfolio is 283.68 compared to the benchmark which is 282.89.



### KEY FINDINGS

The portfolio is 0.28% more carbon intensive than S&P 500 Ex Tobacco benchmark.

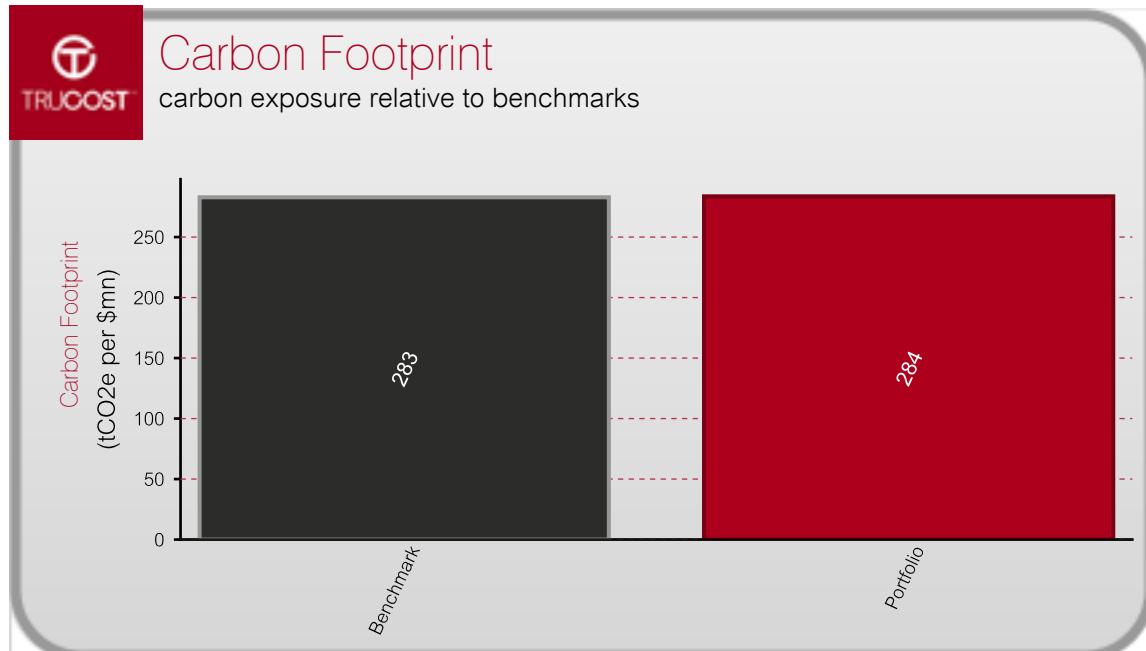
This efficiency is due to a combination of 0.12% negative sector allocation effects and 0.16% negative stock selection effects.

In aggregate the carbon exposure of the fund is equivalent to 0.88% of the aggregate turnover of the fund.

To give context to the carbon performance, the portfolio has been compared to some key indices.

Carbon has been assessed based on an average annual price of \$36

The price of carbon used in the Trucost model is based on academic research into the external damage costs of carbon emissions.





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## 2 Detailed Findings

The two principal reasons why the carbon exposure of the portfolio may differ from the benchmark are due to sector allocation decisions and stock allocation decisions.

Sector allocation decisions will cause the carbon intensity of the portfolio to diverge markedly from the benchmark where the sector/s are either carbon intensive or low carbon. If the portfolio is overweight in carbon intensive sectors the portfolio is likely to be more carbon intensive than the benchmark.

However, if the stocks within a carbon intensive sector are the most carbon efficient companies, it is possible that the portfolio may still have a lower carbon footprint than the benchmark.

Trucost has developed a carbon optimisation product that can help minimise the carbon footprint associated with a portfolio. For more information, please go to <http://www.trucost.com/investments>

## Summary of Stock and Sector Allocation Effects

### Portfolio

	Sector Weighting		Carbon Intensity (tCO2e/\$mn revenue)		Carbon Footprint Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Sector Allocation	Stock Selection	Total Effect
Automobiles & Parts	0.80 %	1.04 %	80.40	93.29	-0.29 %	0.16 %	-0.13 %
Banks	5.48 %	5.48 %	17.70	17.70	0.01 %	-0.00 %	0.01 %
Basic Resources	0.47 %	0.45 %	1,372.15	1,306.55	-0.09 %	-0.22 %	-0.31 %
Chemicals	1.79 %	1.79 %	838.61	838.77	-0.01 %	0.00 %	-0.01 %
Construction & Materials	0.47 %	0.47 %	154.73	154.48	0.00 %	-0.00 %	-0.00 %
Financial Services	4.92 %	4.92 %	14.73	14.73	0.01 %	0.00 %	0.01 %
Food & Beverage	4.29 %	4.29 %	433.05	433.07	-0.01 %	0.00 %	-0.01 %
Healthcare	14.02 %	14.02 %	38.28	38.29	0.03 %	0.00 %	0.03 %
Industrial Goods & Services	11.33 %	11.09 %	174.80	176.00	0.06 %	0.05 %	0.10 %
Insurance	4.09 %	4.09 %	82.26	82.28	0.02 %	0.00 %	0.02 %
Media	3.08 %	3.08 %	25.23	25.24	0.01 %	0.00 %	0.01 %
Oil & Gas	7.21 %	7.22 %	462.79	462.73	-0.02 %	-0.00 %	-0.02 %
Personal & Household Goods	3.99 %	3.99 %	139.36	139.35	0.00 %	-0.00 %	0.00 %
Real Estate	3.12 %	3.12 %	124.92	124.93	0.00 %	0.00 %	0.00 %
Retail	8.01 %	8.01 %	49.46	49.45	0.05 %	-0.00 %	0.05 %
Technology	17.97 %	17.97 %	49.80	49.80	0.03 %	-0.00 %	0.03 %
Telecommunications	2.70 %	2.70 %	71.04	71.04	0.01 %	-0.00 %	0.01 %
Travel & Leisure	2.68 %	2.68 %	641.93	641.90	-0.01 %	-0.00 %	-0.01 %
Utilities	3.57 %	3.57 %	3,103.40	3,091.70	0.08 %	-0.14 %	-0.06 %
<b>Total</b>	<b>100.00 %</b>	<b>100.00 %</b>	<b>283.68</b>	<b>282.89</b>	<b>-0.12 %</b>	<b>-0.16 %</b>	<b>-0.28 %</b>

The portfolio is 0.28% more carbon intensive than the benchmark.

- The sector allocation of the portfolio is responsible for 0.12% of the lower carbon efficiency.
- The stock selection is responsible for 0.16% of the lower carbon efficiency.
- In aggregate, the two sectors that have the greatest positive effect on carbon efficiency are Industrial Goods & Services and Retail, which together contribute 0.15% of the increased carbon efficiency. The two worst performing sectors in the portfolio are Basic Resources and Automobiles & Parts, which contribute to 0.44% of reduced carbon efficiency.

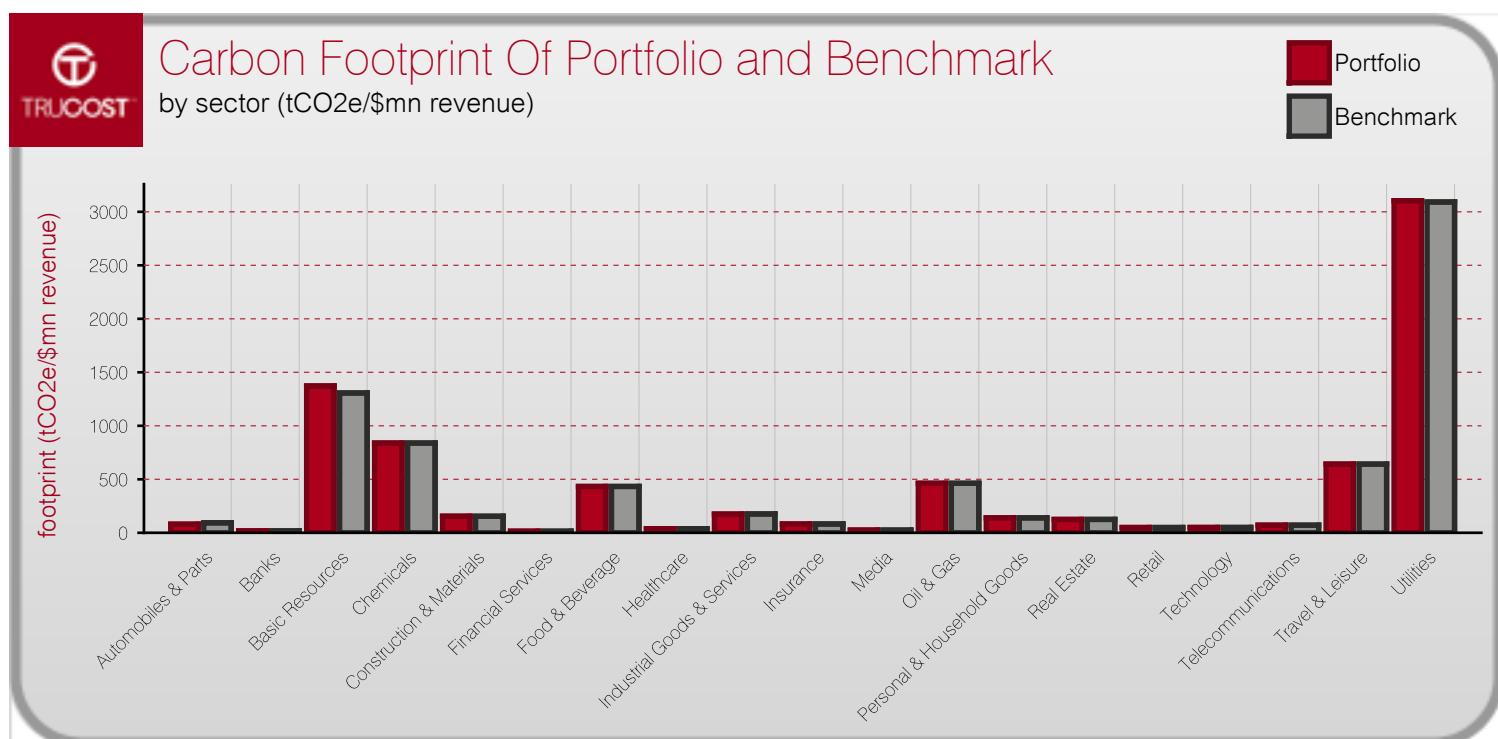
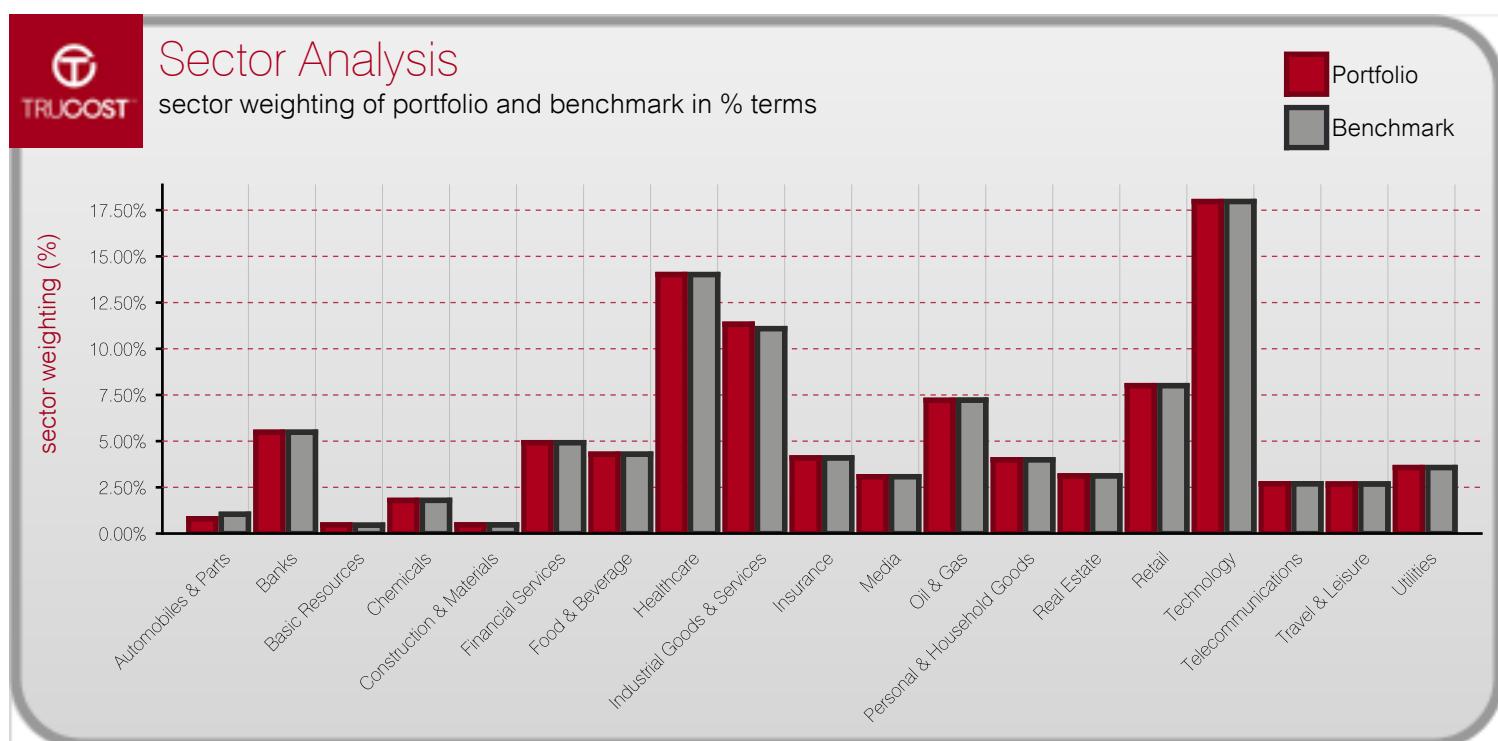


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### 3 Sector Analysis

The graphs below show how the sector allocation in the portfolio differs from that in the benchmark and the effect on the Carbon Footprint of the fund. The four sectors that contribute the highest levels of carbon intensity to the portfolio are Utilities (3,103 tCO2e/\$mn), Basic Resources (1,372 tCO2e/\$mn), Chemicals (839 tCO2e/\$mn), and Travel & Leisure (642 tCO2e/\$mn). Sectors have been defined using the Industry Classification Benchmark (ICB) system at the super sector level.





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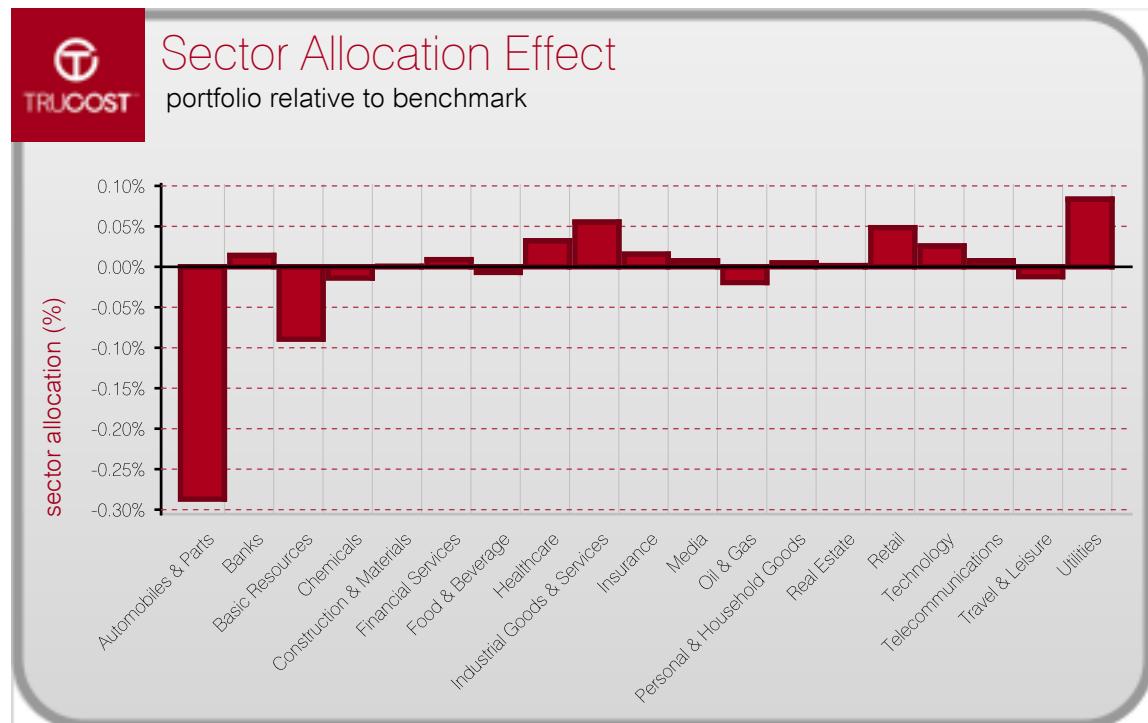


## 4 Sector Allocation & Stock Selection Effect

This graph analyzes the sector allocation effect on the carbon footprint of the portfolio.

If the bar is negative, you are more heavily invested in a carbon intensive sector than the benchmark, or you are underweight in a carbon "light" sector.

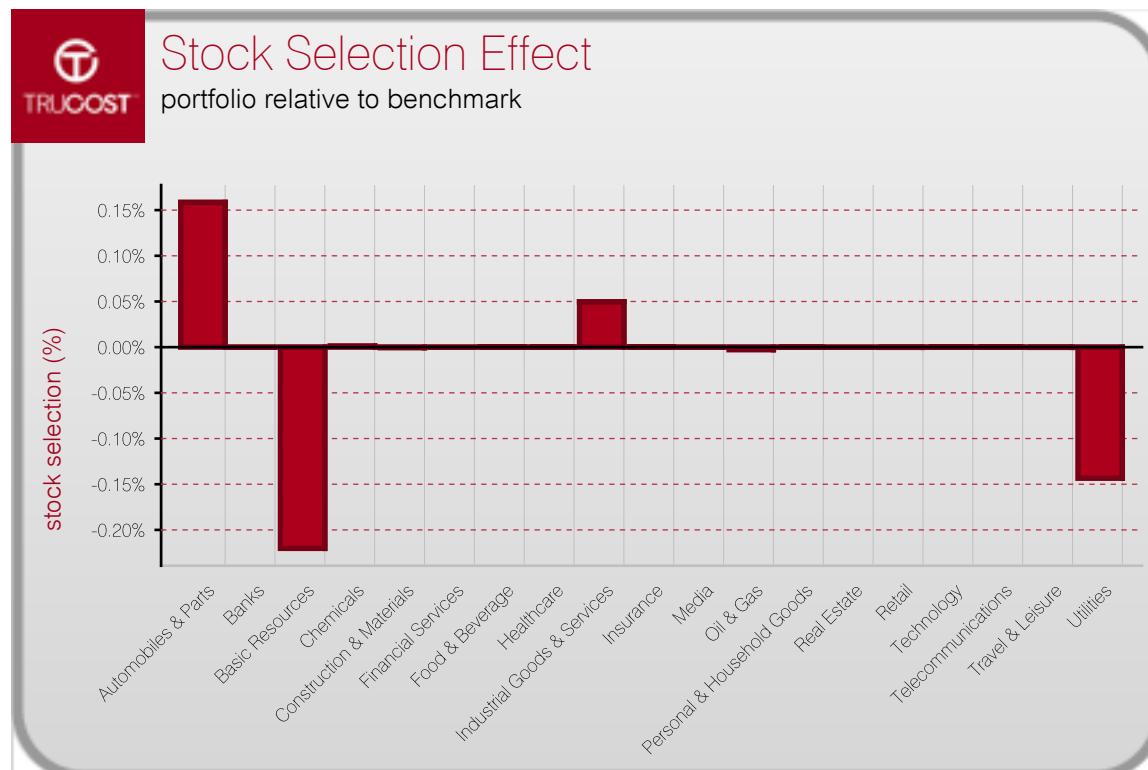
The reverse is true if the bar is positive.



This graph shows the effect of stock selection within sectors on the carbon footprint of the portfolio relative to the benchmark.

If the bar is positive, you are invested in companies that are less carbon intensive relative to peers within their benchmark sector.

If the bar is negative, you are invested in more carbon intensive companies within sectors.



Carbon efficiency can be used as a proxy for efficient management of a company. Therefore you may want to see how companies in your fund rank within their sectors from a carbon efficiency perspective. This "rank in sector" information is available in the Data Sheets at the back of this report.



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## 5 Largest Carbon Contributors to the Portfolio's Carbon Footprint

The ten companies that contribute the most to the portfolio's carbon footprint are shown below. Note that a company may appear due to the proportion owned, rather than because it is the most carbon intensive stock held. The rank in benchmark sector column is very useful in assessing the carbon intensity of your top ten contributors relative to their peers.

### Largest Contributors to Portfolio's Carbon Footprint

Company Name	Holding (\$ mn)	Carbon Apportioned Tonnes	Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector**	Data Source***
American Electric Power Co., Inc.	0.061	225	4.17%	6,975	-4.01 %	29 / 30
The Southern Co.	0.097	210	3.88%	6,114	-3.71 %	26 / 30
Duke Energy Corp.	0.107	207	3.85%	4,509	-3.61 %	21 / 30
Exxon Mobil Corp.	0.701	394	7.31%	515	-3.42 %	25 / 36
NRG Energy, Inc.	0.007	173	3.21%	6,158	-3.07 %	27 / 30
The AES Corp.	0.016	139	2.57%	4,642	-2.42 %	23 / 30
Xcel Energy, Inc.	0.040	107	1.98%	4,920	-1.86 %	24 / 30
Dominion Resources, Inc.	0.090	101	1.88%	4,421	-1.76 %	20 / 30
FirstEnergy Corp.	0.027	97	1.80%	3,250	-1.64 %	16 / 30
NextEra Energy, Inc.	0.111	98	1.81%	2,897	-1.63 %	13 / 30
<b>Total</b>	<b>1.258</b>	<b>1,750</b>	<b>32.45%</b>	<b>-27.13 %</b>		

\* The Carbon Footprint Contribution is the percentage decrease in performance between what the Carbon Footprint of the portfolio would be without the holding and what the Carbon Footprint is currently. This is a measurement of how much a specific holding reduces the carbon performance of the portfolio.

\*\* Footprint Rank in Benchmark Sector - A ranking of one indicates that the stock has the lowest carbon footprint among the stocks in the benchmark sector. An entry of N/A indicates that the stock is not a member of the benchmark.

\*\*\* See table below for definitions of the Data Source.

### Carbon Footprint

#### Data Source Definitions

Code	Explanation
AR	Exact Value from Annual Report/10K/Financial Accounts Disclosure
AR*	Value derived from data provided in Annual Report/Financial Accounts Disclosure
CDP	Exact Value from CDP
CDP*	Value derived from data provided in CDP
ENV	Exact Value from Environmental/CSR
ENV*	Value derived from data provided in Environmental/CSR
OTH	Exact Value from personal communication
OTH*	Value derived from personal communication
PDD	Estimate scaled according to company-specific data
PRE	Derived from previous year
TC	Data Calculated by Trucost



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## Carbon Footprint

### Data Source Definitions

Code	Explanation
TC*	Estimate derived from production data



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## 6 Environmental Skylines for Largest Two Contributors

The largest contributors to the carbon footprint of the portfolio are American Electric Power Co., Inc. and The

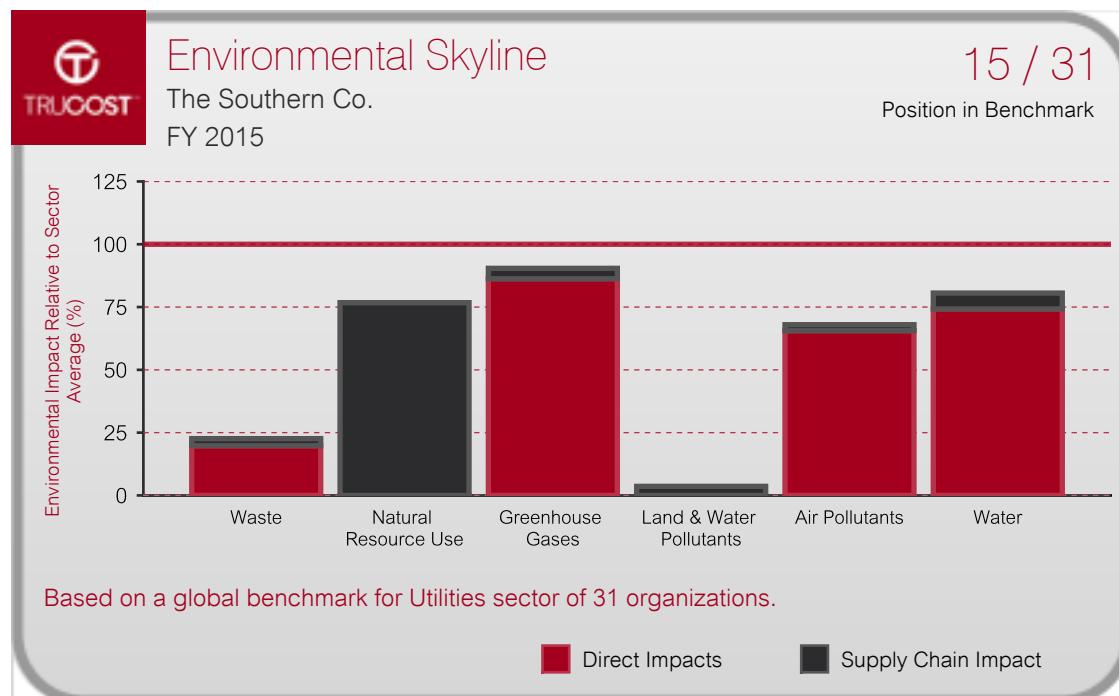
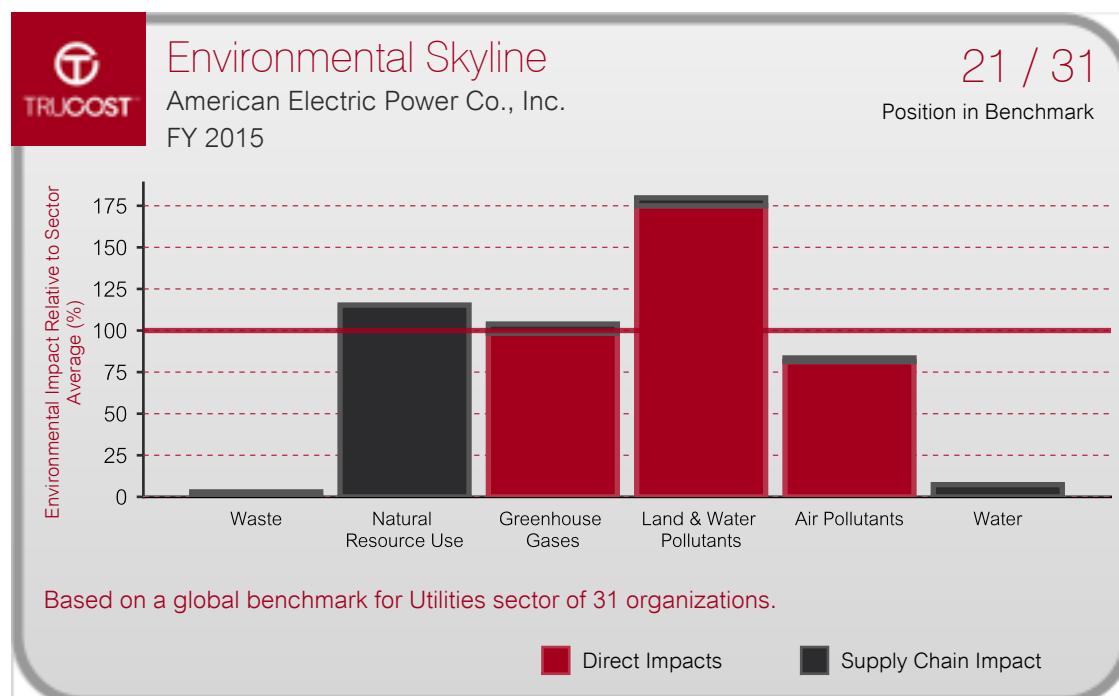
The two charts below look at each company's environmental skyline across six broad environmental groups (Greenhouse Gases, Water, Waste, Land & Water Pollutants, Air Pollutants, Natural Resource Use) relative to its benchmark sector.

Direct environmental impacts are displayed (red bar) as well as those contained within the first-tier of the supply chain (grey bar).

The overall performance across the six environmental groups has been assessed relative to the sector benchmark for both companies. Business activities are analyzed according to the North American Industry Classification (NAICS) 3-digit code.

The red line denotes the average direct and supply chain impact for all the organizations that share this organization's primary business activity.

A bar above the red line indicates that this organization is more environmentally intensive per unit of revenue generated than the benchmark sector for that particular environmental impact.





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## 7 Company Reporting Assessment

In order to rank stocks for engagement purposes we have identified five companies which do not disclose up-to-date data. These companies are ranked according to the size of their impact on your footprint as estimated by Trucost, using our unique environmental profiling model.

Not all companies report in a way considered best practice. The five companies in your portfolio we would draw your attention to, where engagement may be beneficial, are listed in the table below.

### Company Reporting Assessment

#### Portfolio

Company Name	Holding (\$ mn)	Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector**	Data Source***
		Tonnes	(%)				
Dominion Resources, Inc.	0.090	101	1.88%	4,421	-1.76 %	20 / 30	PRE
American Airlines Group, Inc.	0.038	83	1.53%	1,070	-1.13 %	18 / 18	PRE
Delta Air Lines, Inc.	0.057	72	1.33%	926	-0.93 %	15 / 18	PRE
The Dow Chemical Co.	0.113	73	1.35%	779	-0.86 %	9 / 14	PRE
Archer-Daniels-Midland Co.	0.048	83	1.53%	642	-0.86 %	19 / 22	PRE
<b>Total</b>	<b>0.345</b>	<b>411</b>	<b>7.62%</b>		<b>-5.54 %</b>		

\* The Carbon Footprint Contribution is the percentage decrease in performance between what the Carbon Footprint of the portfolio would be without the holding and what the Carbon Footprint is currently. This is a measurement of how much a specific holding reduces the carbon performance of the portfolio.

\*\* Footprint rank in benchmark sector - A ranking of one indicates that the stock has the lowest carbon footprint among the stocks in the benchmark sector. An entry of N/A indicates that the stock is not a member of the benchmark.

\*\*\* Definitions of the Data Sources may be found in section 5 of this report.



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## 8 Detailed Data for Companies in your Portfolio

The following table shows how each company contributes to the overall portfolio footprint. It allows you to see which stocks are the greatest contributors to your portfolio's CO<sub>2</sub>e emissions in absolute terms as well as helping you to understand how your owned stocks compare on a sector by sector basis with other stocks in the benchmark. This will help in managing your overall footprint without compromising your sector allocations. Further detail and regular updates are available from Trucost.

### Company Breakdown

#### Portfolio

Company details	Weighting		Carbon Apportioned		Carbon Intensity (tCO <sub>2</sub> e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO <sub>2</sub> e	% of Portfolio's Total Carbon Apportioned				
Automobiles & Parts	0.80 %	1.04 %	53	0.99 %	80	2.58 %		
BorgWarner, Inc.	0.04 %	0.04 %	2	0.05 %	171	0.03 %	5 / 8	PRE
Delphi Automotive Plc	0.11 %	0.11 %	3	0.06 %	96	0.12 %	4 / 8	CDP
Ford Motor Co.	0.26 %	0.26 %	15	0.29 %	54	1.23 %	2 / 8	PRE
General Motors Co.	0.25 %	0.25 %	21	0.39 %	77	1.06 %	3 / 8	CDP
Goodyear Tire & Rubber Co.	0.05 %	0.05 %	8	0.15 %	259	0.01 %	8 / 8	PRE
Harley-Davidson, Inc.	0.05 %	0.05 %	2	0.04 %	177	0.02 %	6 / 8	ENV*
LKQ Corp.	0.06 %	0.06 %	1	0.01 %	53	0.06 %	1 / 8	TC
Banks	5.48 %	5.48 %	14	0.27 %	18	4.19 %		
Bank of America Corp.	0.87 %	0.87 %	3	0.06 %	20	0.80 %	11 / 17	CDP
BB&T Corp.	0.17 %	0.17 %	0	0.00 %	9	0.10 %	6 / 17	TC
Citigroup, Inc.	0.75 %	0.75 %	2	0.04 %	16	0.75 %	9 / 17	ENV*
Citizens Financial Group, Inc.	0.07 %	0.07 %	0	0.00 %	6	0.05 %	1 / 17	TC
Comerica, Inc.	0.04 %	0.04 %	0	0.00 %	33	0.02 %	16 / 17	PRE
Fifth Third Bancorp	0.09 %	0.09 %	0	0.01 %	22	0.06 %	12 / 17	PRE
Huntington Bancshares, Inc.	0.06 %	0.06 %	0	0.00 %	34	0.03 %	17 / 17	PRE
JPMorgan Chase & Co.	1.31 %	1.31 %	3	0.05 %	14	0.91 %	7 / 17	ENV*
KeyCorp	0.07 %	0.07 %	0	0.00 %	24	0.04 %	13 / 17	CDP
M&T Bank Corp.	0.10 %	0.10 %	0	0.00 %	8	0.05 %	5 / 17	TC
People's United Financial, Inc.	0.03 %	0.03 %	0	0.00 %	6	0.01 %	3 / 17	TC
Regions Financial Corp.	0.07 %	0.07 %	0	0.00 %	7	0.05 %	4 / 17	TC
SunTrust Banks, Inc.	0.12 %	0.12 %	0	0.00 %	16	0.08 %	8 / 17	TC
The PNC Financial Services Group, Inc.	0.24 %	0.24 %	1	0.02 %	29	0.14 %	15 / 17	CDP
U.S. Bancorp	0.38 %	0.38 %	1	0.02 %	24	0.18 %	14 / 17	CDP
Wells Fargo & Co.	1.09 %	1.09 %	3	0.05 %	19	0.74 %	10 / 17	ENV*
Zions Bancorp.	0.03 %	0.03 %	0	0.00 %	6	0.02 %	2 / 17	TC
Basic Resources	0.47 %	0.45 %	248	4.59 %	1,372	-3.68 %		
Alcoa, Inc.	0.07 %	0.07 %	89	1.65 %	1,916	-1.41 %	4 / 5	CDP*
CONSOL Energy, Inc.	0.01 %		17	0.32 %	4,222	-0.30 %	N / A	CDP*
Freeport-McMoRan, Inc.	0.07 %	0.07 %	20	0.36 %	504	-0.16 %	1 / 5	CDP



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## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
International Paper Co.	0.11 %	0.11 %	86	1.59 %	1,972	-1.37 %	5 / 5	ENV*
Newmont Mining Corp.	0.11 %	0.11 %	12	0.22 %	771	-0.14 %	3 / 5	ENV
Nucor Corp.	0.09 %	0.09 %	24	0.45 %	757	-0.28 %	2 / 5	TC
Chemicals	1.79 %	1.79 %	323	5.99 %	839	-4.05 %		
Air Products & Chemicals, Inc.	0.18 %	0.18 %	59	1.09 %	2,705	-0.97 %	13 / 14	CDP*
Albemarle Corp.	0.05 %	0.05 %	3	0.06 %	465	-0.02 %	4 / 14	PRE
Avery Dennison Corp.	0.04 %	0.04 %	9	0.17 %	808	-0.11 %	10 / 14	TC
CF Industries Holdings, Inc.	0.03 %	0.03 %	30	0.56 %	3,298	-0.51 %	14 / 14	ENV*
E.I. du Pont de Nemours & Co.	0.32 %	0.32 %	39	0.73 %	591	-0.38 %	6 / 14	CDP
Eastman Chemical Co.	0.05 %	0.05 %	14	0.26 %	746	-0.16 %	7 / 14	PRE
Ecolab, Inc.	0.17 %	0.17 %	3	0.05 %	122	0.07 %	1 / 14	ENV*
FMC Corp.	0.04 %	0.04 %	9	0.16 %	1,106	-0.12 %	11 / 14	ENV*
International Flavors & Fragrances, Inc.	0.06 %	0.06 %	1	0.02 %	140	0.02 %	2 / 14	ENV*
LyondellBasell Industries NV	0.15 %	0.15 %	29	0.54 %	565	-0.27 %	5 / 14	PRE
PPG Industries, Inc.	0.15 %	0.15 %	6	0.11 %	207	0.04 %	3 / 14	CDP
Praxair, Inc.	0.19 %	0.19 %	35	0.64 %	1,659	-0.53 %	12 / 14	PRE
The Dow Chemical Co.	0.32 %	0.32 %	73	1.35 %	779	-0.86 %	9 / 14	PRE
The Mosaic Co.	0.05 %	0.05 %	13	0.24 %	760	-0.15 %	8 / 14	CDP
Construction & Materials	0.47 %	0.47 %	21	0.40 %	155	0.33 %		
Fluor Corp.	0.04 %	0.04 %	1	0.01 %	16	0.21 %	1 / 8	CDP
Fortune Brands Home & Security, Inc.	0.05 %	0.05 %	2	0.03 %	170	0.02 %	6 / 8	TC
Jacobs Engineering Group, Inc.	0.03 %	0.03 %	1	0.01 %	28	0.12 %	2 / 8	TC
Martin Marietta Materials, Inc.	0.06 %	0.06 %	11	0.20 %	1,573	-0.17 %	8 / 8	TC
Masco Corp.	0.06 %	0.06 %	2	0.03 %	122	0.04 %	5 / 8	PRE
Quanta Services, Inc.	0.02 %	0.02 %	1	0.03 %	90	0.06 %	4 / 8	TC
The Sherwin-Williams Co.	0.12 %	0.12 %	2	0.03 %	83	0.07 %	3 / 8	PRE
Vulcan Materials Co.	0.08 %	0.08 %	3	0.05 %	423	-0.02 %	7 / 8	TC
Financial Services	4.92 %	4.92 %	7	0.14 %	15	2.55 %		
Affiliated Managers Group, Inc.	0.04 %	0.04 %	0	0.00 %	13	0.02 %	12 / 29	TC
American Express Co.	0.27 %	0.27 %	1	0.01 %	9	0.29 %	4 / 29	CDP
Ameriprise Financial, Inc.	0.09 %	0.09 %	0	0.00 %	8	0.12 %	2 / 29	TC
BlackRock, Inc.	0.24 %	0.24 %	0	0.00 %	13	0.08 %	10 / 29	TC
Capital One Financial Corp.	0.20 %	0.20 %	1	0.01 %	16	0.23 %	19 / 29	PRE
CME Group, Inc.	0.19 %	0.19 %	0	0.00 %	13	0.03 %	9 / 29	TC
Discover Financial Services	0.12 %	0.12 %	0	0.00 %	14	0.08 %	16 / 29	TC
E*TRADE Financial Corp.	0.04 %	0.04 %	0	0.00 %	11	0.02 %	6 / 29	TC



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Equifax, Inc.	0.09 %	0.09 %	0	0.00 %	32	0.02 %	28 / 29	TC
Franklin Resources, Inc.	0.07 %	0.07 %	0	0.00 %	9	0.05 %	5 / 29	CDP
Global Payments, Inc.	0.06 %	0.06 %	0	0.00 %	14	0.02 %	13 / 29	TC
Intercontinental Exchange, Inc.	0.17 %	0.17 %	0	0.00 %	13	0.04 %	11 / 29	TC
Invesco Ltd.	0.07 %	0.07 %	0	0.00 %	9	0.05 %	3 / 29	PRE
Legg Mason, Inc.	0.02 %	0.02 %	0	0.00 %	5	0.03 %	1 / 29	CDP
MasterCard, Inc.	0.53 %	0.53 %	0	0.00 %	14	0.08 %	15 / 29	TC
Moody's Corp.	0.10 %	0.10 %	0	0.00 %	32	0.03 %	29 / 29	TC
Morgan Stanley	0.26 %	0.26 %	1	0.02 %	17	0.24 %	23 / 29	CDP
Nasdaq, Inc.	0.04 %	0.04 %	0	0.00 %	28	0.02 %	27 / 29	TC
Navient Corp.	0.02 %	0.02 %	0	0.00 %	14	0.03 %	14 / 29	TC
Northern Trust Corp.	0.08 %	0.08 %	0	0.00 %	17	0.04 %	21 / 29	CDP
S&P Global, Inc.	0.18 %	0.18 %	0	0.00 %	16	0.05 %	18 / 29	ENV*
State Street Corp.	0.14 %	0.14 %	0	0.01 %	17	0.09 %	20 / 29	CDP
Synchrony Financial	0.12 %	0.12 %	0	0.01 %	14	0.11 %	17 / 29	TC
T. Rowe Price Group, Inc.	0.09 %	0.09 %	0	0.00 %	12	0.04 %	8 / 29	ENV*
The Bank of New York Mellon Corp.	0.23 %	0.23 %	1	0.01 %	18	0.15 %	24 / 29	CDP
The Charles Schwab Corp.	0.21 %	0.21 %	0	0.00 %	19	0.05 %	26 / 29	PRE
The Goldman Sachs Group, Inc.	0.33 %	0.33 %	1	0.02 %	18	0.30 %	25 / 29	PRE
The Western Union Co.	0.06 %	0.06 %	0	0.00 %	17	0.05 %	22 / 29	PRE
Visa, Inc.	0.85 %	0.85 %	0	0.00 %	11	0.10 %	7 / 29	CDP
<b>Food &amp; Beverage</b>	<b>4.29 %</b>	<b>4.29 %</b>	<b>304</b>	<b>5.64 %</b>	<b>433</b>	<b>-2.02 %</b>		
Archer-Daniels-Midland Co.	0.13 %	0.13 %	83	1.53 %	642	-0.86 %	19 / 22	PRE
Brown-Forman Corp.	0.05 %	0.05 %	0	0.01 %	116	0.01 %	2 / 22	CDP
Campbell Soup Co.	0.06 %	0.06 %	4	0.07 %	373	-0.02 %	12 / 22	CDP
ConAgra Foods, Inc.	0.11 %	0.11 %	15	0.28 %	460	-0.11 %	16 / 22	CDP
Constellation Brands, Inc.	0.16 %	0.16 %	2	0.03 %	133	0.03 %	3 / 22	CDP
Dr Pepper Snapple Group, Inc.	0.09 %	0.09 %	2	0.04 %	175	0.02 %	6 / 22	PRE
General Mills, Inc.	0.21 %	0.21 %	13	0.25 %	378	-0.06 %	13 / 22	CDP
Hormel Foods Corp.	0.06 %	0.06 %	9	0.17 %	977	-0.12 %	22 / 22	CDP
Kellogg Co.	0.11 %	0.11 %	5	0.09 %	260	0.01 %	9 / 22	ENV*
Leucadia National Corp.	0.03 %	0.03 %	14	0.25 %	666	-0.15 %	20 / 22	TC
McCormick & Co., Inc.	0.06 %	0.06 %	1	0.03 %	175	0.02 %	7 / 22	OTH
Mead Johnson Nutrition Co.	0.08 %	0.08 %	3	0.06 %	398	-0.02 %	14 / 22	CDP
Molson Coors Brewing Co.	0.11 %	0.11 %	1	0.03 %	168	0.02 %	5 / 22	PRE
Mondelez International, Inc.	0.37 %	0.37 %	15	0.28 %	263	0.02 %	10 / 22	PRE



TRUCOST<sup>TM</sup>



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Monsanto Co.	0.24 %	0.24 %	19	0.35 %	614	-0.19 %	18 / 22	CDP
Monster Beverage Corp.	0.11 %	0.11 %	0	0.00 %	50	0.01 %	1 / 22	TC
PepsiCo, Inc.	0.85 %	0.85 %	33	0.62 %	271	0.03 %	11 / 22	PRE
The Coca-Cola Co.	0.90 %	0.90 %	16	0.29 %	202	0.12 %	8 / 22	PRE
The Hershey Co.	0.07 %	0.07 %	1	0.03 %	143	0.03 %	4 / 22	PRE
The J. M. Smucker Co.	0.09 %	0.09 %	5	0.09 %	427	-0.03 %	15 / 22	CDP*
The Kraft Heinz Co.	0.29 %	0.29 %	9	0.17 %	543	-0.08 %	17 / 22	TC
Tyson Foods, Inc.	0.12 %	0.12 %	53	0.99 %	810	-0.64 %	21 / 22	PRE
Healthcare	14.02 %	14.02 %	77	1.43 %	38	10.29 %		
Abbott Laboratories	0.34 %	0.34 %	11	0.20 %	273	0.01 %	51 / 51	ENV*
AbbVie, Inc.	0.56 %	0.56 %	2	0.04 %	54	0.16 %	26 / 51	CDP
Aetna, Inc.	0.22 %	0.22 %	1	0.02 %	9	0.60 %	5 / 51	PRE
Alexion Pharmaceuticals, Inc.	0.15 %	0.15 %	0	0.01 %	63	0.02 %	37 / 51	TC
Allergan Plc	0.50 %	0.50 %	0	0.01 %	36	0.06 %	12 / 51	CDP
Amgen, Inc.	0.68 %	0.68 %	1	0.03 %	35	0.19 %	11 / 51	ENV*
Anthem, Inc.	0.18 %	0.18 %	1	0.01 %	4	0.81 %	1 / 51	PRE
Baxter International, Inc.	0.13 %	0.13 %	1	0.03 %	82	0.06 %	47 / 51	PRE
Becton, Dickinson & Co.	0.21 %	0.21 %	1	0.02 %	60	0.07 %	34 / 51	CDP
Biogen, Inc.	0.37 %	0.37 %	1	0.01 %	27	0.10 %	9 / 51	PRE
Boston Scientific Corp.	0.18 %	0.18 %	1	0.01 %	45	0.06 %	16 / 51	OTH
Bristol-Myers Squibb Co.	0.49 %	0.49 %	2	0.03 %	53	0.14 %	23 / 51	PRE
C.R. Bard, Inc. (New Jersey)	0.09 %	0.09 %	0	0.01 %	71	0.03 %	44 / 51	PRE
Celgene Corp.	0.44 %	0.44 %	0	0.01 %	23	0.09 %	7 / 51	PRE
Centene Corp.	0.06 %	0.06 %	0	0.00 %	4	0.23 %	3 / 51	TC
Cigna Corp.	0.18 %	0.18 %	0	0.01 %	5	0.39 %	4 / 51	ENV*
DaVita, Inc.	0.06 %	0.06 %	1	0.02 %	54	0.09 %	27 / 51	TC
DENTSPLY SIRONA, Inc.	0.08 %	0.08 %	1	0.01 %	106	0.02 %	50 / 51	PRE
Edwards Lifesciences Corp.	0.14 %	0.14 %	0	0.00 %	52	0.02 %	22 / 51	PRE
Eli Lilly & Co.	0.42 %	0.42 %	3	0.06 %	99	0.12 %	49 / 51	ENV*
Endo International Plc	0.02 %	0.02 %	0	0.00 %	50	0.02 %	17 / 51	TC
Express Scripts Holding Co.	0.24 %	0.24 %	5	0.09 %	24	0.96 %	8 / 51	TC
Gilead Sciences, Inc.	0.57 %	0.57 %	2	0.03 %	29	0.30 %	10 / 51	PRE
HCA Holdings, Inc.	0.12 %	0.12 %	5	0.09 %	87	0.21 %	48 / 51	TC
Henry Schein, Inc.	0.07 %	0.07 %	1	0.02 %	52	0.09 %	21 / 51	TC
Hologic, Inc.	0.06 %	0.06 %	0	0.01 %	60	0.02 %	35 / 51	TC
Humana, Inc.	0.14 %	0.14 %	0	0.01 %	4	0.55 %	2 / 51	ENV*



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Illumina, Inc.	0.14 %	0.14 %	0	0.00 %	57	0.02 %	31 / 51	TC
Intuitive Surgical, Inc.	0.15 %	0.15 %	0	0.01 %	67	0.02 %	39 / 51	TC
Johnson & Johnson	1.76 %	1.76 %	7	0.13 %	51	0.59 %	20 / 51	ENV*
Laboratory Corp. of America Holdings	0.08 %	0.08 %	1	0.02 %	59	0.07 %	32 / 51	TC
Mallinckrodt Plc	0.04 %	0.04 %	0	0.00 %	55	0.02 %	29 / 51	TC
Medtronic Plc	0.65 %	0.65 %	2	0.03 %	44	0.18 %	15 / 51	CDP
Merck & Co., Inc.	0.94 %	0.94 %	6	0.11 %	70	0.32 %	42 / 51	CDP
Mylan NV	0.10 %	0.10 %	1	0.01 %	55	0.05 %	28 / 51	TC
Patterson Cos., Inc.	0.02 %	0.02 %	0	0.01 %	53	0.03 %	24 / 51	TC
Perrigo Co. Plc	0.07 %	0.07 %	1	0.01 %	71	0.03 %	43 / 51	PRE
Pfizer Inc.	1.12 %	1.12 %	5	0.10 %	53	0.42 %	25 / 51	CDP*
Quest Diagnostics, Inc.	0.06 %	0.06 %	1	0.01 %	51	0.06 %	19 / 51	PRE
Regeneron Pharmaceuticals, Inc.	0.16 %	0.17 %	0	0.00 %	40	0.02 %	13 / 51	PRE
St. Jude Medical, Inc.	0.12 %	0.12 %	0	0.01 %	43	0.05 %	14 / 51	PRE
Stryker Corp.	0.20 %	0.20 %	1	0.02 %	74	0.06 %	46 / 51	TC
The Cooper Cos., Inc.	0.05 %	0.05 %	0	0.00 %	69	0.01 %	41 / 51	TC
Thermo Fisher Scientific, Inc.	0.34 %	0.34 %	2	0.04 %	59	0.14 %	33 / 51	PRE
UnitedHealth Group, Inc.	0.73 %	0.73 %	4	0.08 %	15	1.56 %	6 / 51	PRE
Universal Health Services, Inc.	0.06 %	0.06 %	1	0.02 %	74	0.06 %	45 / 51	TC
Varian Medical Systems, Inc.	0.05 %	0.05 %	0	0.01 %	50	0.03 %	18 / 51	CDP
Vertex Pharmaceuticals, Inc.	0.12 %	0.12 %	0	0.00 %	68	0.01 %	40 / 51	TC
Waters Corp.	0.07 %	0.07 %	0	0.00 %	56	0.02 %	30 / 51	PRE
Zimmer Biomet Holdings, Inc.	0.14 %	0.14 %	1	0.01 %	63	0.05 %	36 / 51	PRE
Zoetis, Inc.	0.14 %	0.14 %	1	0.01 %	63	0.04 %	38 / 51	TC
Industrial Goods & Services	11.33 %	11.09 %	389	7.21 %	175	5.08 %		
3M Co.	0.58 %	0.58 %	16	0.30 %	276	0.01 %	60 / 72	ENV*
Accenture Plc	0.41 %	0.41 %	2	0.03 %	27	0.28 %	10 / 72	CDP
Acuity Brands, Inc.	0.06 %	0.06 %	1	0.01 %	138	0.01 %	45 / 72	TC
Agilent Technologies, Inc.	0.08 %	0.08 %	1	0.01 %	48	0.06 %	16 / 72	CDP
Allegion Plc	0.04 %	0.04 %	0	0.00 %	60	0.02 %	27 / 72	TC
Alliance Data Systems Corp.	0.07 %	0.07 %	0	0.01 %	26	0.06 %	9 / 72	PRE
AMETEK, Inc.	0.06 %	0.06 %	1	0.02 %	144	0.02 %	47 / 72	TC
Amphenol Corp.	0.11 %	0.11 %	2	0.03 %	150	0.03 %	51 / 72	TC
Automatic Data Processing, Inc.	0.22 %	0.22 %	1	0.01 %	24	0.12 %	5 / 72	CDP*
Ball Corp.	0.08 %	0.08 %	7	0.13 %	456	-0.05 %	63 / 72	OTH
C.H. Robinson Worldwide, Inc.	0.05 %	0.05 %	1	0.01 %	23	0.13 %	4 / 72	TC



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## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Caterpillar, Inc.	0.28 %	0.28 %	13	0.24 %	144	0.24 %	46 / 72	ENV*
Cintas Corp.	0.05 %	0.05 %	1	0.01 %	84	0.03 %	33 / 72	TC
CSX Corp.	0.16 %	0.16 %	13	0.24 %	534	-0.11 %	65 / 72	OTH
Cummins, Inc.	0.11 %	0.11 %	4	0.07 %	115	0.11 %	40 / 72	ENV*
Danaher Corp.	0.26 %	0.26 %	3	0.05 %	82	0.13 %	32 / 72	TC
Deere & Co.	0.13 %	0.13 %	9	0.17 %	145	0.17 %	48 / 72	CDP
Dover Corp.	0.06 %	0.06 %	2	0.04 %	148	0.03 %	50 / 72	PRE
Eaton Corp. Plc	0.16 %	0.16 %	10	0.19 %	259	0.02 %	59 / 72	ENV*
Emerson Electric Co.	0.19 %	0.19 %	6	0.11 %	119	0.15 %	42 / 72	CDP*
Expeditors International of Washington, Inc.	0.05 %	0.05 %	12	0.21 %	897	-0.15 %	69 / 72	PRE
Fastenal Co.	0.07 %	0.07 %	0	0.01 %	52	0.03 %	18 / 72	TC
FedEx Corp.	0.23 %	0.23 %	28	0.52 %	334	-0.08 %	61 / 72	PRE
Fiserv, Inc.	0.12 %	0.12 %	0	0.00 %	19	0.05 %	2 / 72	TC
FLIR Systems, Inc.	0.02 %	0.02 %	0	0.00 %	55	0.01 %	22 / 72	TC
Flowserve Corp.	0.03 %	0.03 %	1	0.02 %	117	0.03 %	41 / 72	PRE
General Dynamics Corp.	0.24 %	0.24 %	4	0.08 %	78	0.22 %	30 / 72	PRE
General Electric Co.	1.45 %	1.45 %	25	0.47 %	88	1.06 %	35 / 72	CDP
Harris Corp.	0.06 %	0.06 %	1	0.01 %	53	0.04 %	19 / 72	TC
Honeywell International, Inc.	0.48 %	0.48 %	15	0.27 %	197	0.12 %	56 / 72	PRE
Illinois Tool Works, Inc.	0.21 %	0.21 %	3	0.06 %	133	0.07 %	44 / 72	ENV*
Ingersoll-Rand Plc	0.10 %	0.10 %	4	0.08 %	167	0.06 %	53 / 72	PRE
J.B. Hunt Transport Services, Inc.	0.04 %	0.04 %	3	0.06 %	366	-0.01 %	62 / 72	PRE
Kansas City Southern	0.05 %	0.05 %	3	0.05 %	622	-0.03 %	67 / 72	PRE
L-3 Communications Holdings, Inc.	0.06 %	0.06 %	1	0.02 %	64	0.08 %	28 / 72	TC
Lockheed Martin Corp.	0.33 %	0.33 %	4	0.08 %	55	0.33 %	21 / 72	OTH
Mettler-Toledo International, Inc.	0.06 %	0.06 %	0	0.01 %	57	0.02 %	25 / 72	CDP
Norfolk Southern Corp.	0.16 %	0.16 %	10	0.19 %	510	-0.09 %	64 / 72	PRE
Northrop Grumman Corp.	0.21 %	0.21 %	4	0.07 %	80	0.17 %	31 / 72	CDP
Owens-Illinois, Inc.	0.02 %	0.02 %	13	0.25 %	1,010	-0.18 %	70 / 72	CDP
PACCAR, Inc.	0.11 %	0.11 %	2	0.04 %	60	0.15 %	26 / 72	ENV*
Parker-Hannifin Corp.	0.09 %	0.09 %	5	0.09 %	180	0.05 %	55 / 72	CDP
Paychex, Inc.	0.10 %	0.10 %	0	0.00 %	25	0.02 %	8 / 72	TC
PayPal Holdings, Inc.	0.25 %	0.25 %	0	0.00 %	14	0.08 %	1 / 72	TC
Pentair Plc	0.06 %	0.06 %	2	0.03 %	161	0.03 %	52 / 72	TC
PerkinElmer, Inc. (United States)	0.03 %	0.03 %	0	0.00 %	49	0.02 %	17 / 72	PRE
Qorvo, Inc.	0.04 %	0.04 %	0	0.01 %	126	0.01 %	43 / 72	TC



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
<b>Company details</b>								
Raytheon Co.	0.22 %	0.22 %	2	0.03 %	41	0.20 %	15 / 72	PRE
Republic Services, Inc.	0.06 %	0.06 %	20	0.38 %	1,702	-0.32 %	72 / 72	ENV*
Robert Half International, Inc.	0.03 %	0.03 %	0	0.00 %	22	0.04 %	3 / 72	TC
Rockwell Automation, Inc.	0.09 %	0.09 %	1	0.02 %	85	0.05 %	34 / 72	CDP
Rockwell Collins, Inc.	0.06 %	0.06 %	1	0.01 %	54	0.04 %	20 / 72	PRE
Roper Technologies, Inc.	0.10 %	0.10 %	0	0.01 %	56	0.03 %	24 / 72	TC
Ryder System, Inc.	0.02 %	0.02 %	2	0.03 %	147	0.03 %	49 / 72	CDP
Sealed Air Corp.	0.05 %	0.05 %	2	0.04 %	173	0.03 %	54 / 72	PRE
Stericycle, Inc.	0.04 %	0.04 %	1	0.03 %	236	0.01 %	57 / 72	TC
TE Connectivity Ltd.	0.12 %	0.12 %	3	0.05 %	93	0.10 %	37 / 72	CDP
Textron, Inc.	0.06 %	0.06 %	3	0.05 %	111	0.08 %	39 / 72	PRE
The Boeing Co.	0.42 %	0.42 %	9	0.17 %	56	0.69 %	23 / 72	CDP
Total System Services, Inc.	0.04 %	0.04 %	0	0.00 %	41	0.02 %	14 / 72	TC
TransDigm Group, Inc.	0.08 %	0.08 %	0	0.01 %	73	0.02 %	29 / 72	TC
Tyco International Plc	0.24 %		1	0.02 %	46	0.09 %	N / A	CDP*
Union Pacific Corp.	0.44 %	0.44 %	24	0.45 %	568	-0.22 %	66 / 72	OTH
United Parcel Service, Inc.	0.41 %	0.41 %	22	0.42 %	251	0.05 %	58 / 72	OTH
United Rentals, Inc.	0.04 %	0.04 %	0	0.01 %	38	0.05 %	13 / 72	TC
United Technologies Corp.	0.43 %	0.43 %	10	0.18 %	99	0.34 %	38 / 72	ENV*
Verisk Analytics, Inc.	0.07 %	0.07 %	0	0.00 %	24	0.02 %	6 / 72	TC
W.W. Grainger, Inc.	0.07 %	0.07 %	0	0.01 %	28	0.08 %	11 / 72	PRE
Waste Management, Inc.	0.14 %	0.14 %	32	0.59 %	1,378	-0.47 %	71 / 72	PRE
WestRock Co.	0.07 %	0.07 %	16	0.30 %	824	-0.19 %	68 / 72	TC
Willis Towers Watson Plc	0.09 %	0.09 %	0	0.00 %	24	0.03 %	7 / 72	TC
Xerox Corp.	0.05 %	0.05 %	1	0.02 %	36	0.14 %	12 / 72	OTH
Xylem, Inc.	0.05 %	0.05 %	1	0.01 %	91	0.03 %	36 / 72	CDP
<b>Insurance</b>	<b>4.09 %</b>	<b>4.09 %</b>	<b>94</b>	<b>1.74 %</b>	<b>82</b>	<b>4.53 %</b>		
Aflac, Inc.	0.16 %	0.16 %	0	0.00 %	5	0.21 %	5 / 21	PRE
American International Group, Inc.	0.33 %	0.33 %	1	0.02 %	11	0.60 %	15 / 21	PRE
Aon Plc	0.16 %	0.16 %	1	0.01 %	24	0.11 %	19 / 21	CDP
Arthur J. Gallagher & Co.	0.05 %	0.05 %	0	0.00 %	12	0.05 %	16 / 21	TC
Assurant, Inc.	0.03 %	0.03 %	0	0.00 %	4	0.11 %	3 / 21	CDP
Berkshire Hathaway, Inc.	1.49 %	1.49 %	85	1.58 %	292	-0.05 %	21 / 21	TC
Chubb Ltd.	0.32 %	0.32 %	0	0.00 %	5	0.20 %	8 / 21	CDP
Cincinnati Financial Corp.	0.06 %	0.06 %	0	0.00 %	8	0.05 %	13 / 21	PRE
Lincoln National Corp.	0.06 %	0.06 %	0	0.00 %	3	0.14 %	2 / 21	CDP



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Loews Corp.	0.06 %	0.06 %	2	0.04 %	108	0.07 %	20 / 21	TC
Marsh & McLennan Cos., Inc.	0.19 %	0.19 %	0	0.01 %	17	0.12 %	18 / 21	CDP
MetLife, Inc.	0.27 %	0.27 %	0	0.01 %	3	0.76 %	1 / 21	ENV*
Progressive Corp.	0.10 %	0.10 %	1	0.01 %	15	0.19 %	17 / 21	PRE
Prudential Financial, Inc.	0.19 %	0.19 %	1	0.01 %	6	0.57 %	11 / 21	CDP*
The Allstate Corp.	0.14 %	0.14 %	1	0.01 %	10	0.36 %	14 / 21	OTH
The Hartford Financial Services Group, Inc.	0.09 %	0.09 %	0	0.00 %	5	0.19 %	7 / 21	CDP
The Principal Financial Group, Inc.	0.07 %	0.08 %	0	0.00 %	7	0.10 %	12 / 21	CDP
The Travelers Cos., Inc.	0.18 %	0.18 %	0	0.00 %	5	0.28 %	6 / 21	CDP
Torchmark Corp.	0.04 %	0.04 %	0	0.00 %	6	0.04 %	10 / 21	TC
Unum Group	0.05 %	0.05 %	0	0.00 %	6	0.11 %	9 / 21	CDP
XL Group Ltd.	0.05 %	0.05 %	0	0.00 %	5	0.07 %	4 / 21	TC
Media	3.08 %	3.08 %	12	0.22 %	25	2.36 %		
21st Century Fox, Inc.	0.21 %	0.21 %	1	0.01 %	14	0.23 %	2 / 14	PRE
CBS Corp.	0.12 %	0.12 %	1	0.01 %	26	0.12 %	9 / 14	TC
Charter Communications, Inc.	0.32 %	0.32 %	0	0.00 %	16	0.07 %	4 / 14	TC
Comcast Corp.	0.87 %	0.87 %	3	0.05 %	19	0.71 %	7 / 14	TC
Discovery Communications, Inc.	0.05 %	0.05 %	0	0.00 %	17	0.06 %	5 / 14	TC
Dun & Bradstreet Corp.	0.03 %	0.03 %	0	0.00 %	22	0.02 %	8 / 14	TC
Interpublic Group of Cos., Inc.	0.05 %	0.05 %	0	0.01 %	30	0.07 %	11 / 14	TC
News Corp.	0.04 %	0.04 %	1	0.02 %	75	0.05 %	14 / 14	CDP
Nielsen Holdings Plc	0.10 %	0.10 %	0	0.01 %	32	0.05 %	12 / 14	TC
Omnicom Group, Inc.	0.11 %	0.11 %	1	0.02 %	27	0.14 %	10 / 14	CDP
Scripps Networks Interactive, Inc.	0.03 %	0.03 %	0	0.00 %	12	0.02 %	1 / 14	CDP
The Walt Disney Co.	0.75 %	0.75 %	4	0.07 %	42	0.39 %	13 / 14	CDP
Time Warner, Inc.	0.34 %	0.34 %	1	0.01 %	15	0.27 %	3 / 14	CDP
Viacom, Inc.	0.07 %	0.07 %	0	0.01 %	18	0.11 %	6 / 14	TC
Oil & Gas	7.21 %	7.22 %	1,104	20.47 %	463	-9.06 %		
Anadarko Petroleum Corp.	0.19 %	0.19 %	26	0.49 %	849	-0.32 %	34 / 36	CDP*
Apache Corp.	0.13 %	0.13 %	17	0.32 %	649	-0.18 %	29 / 36	CDP
Baker Hughes, Inc.	0.12 %	0.12 %	7	0.12 %	218	0.04 %	5 / 36	ENV*
Cabot Oil & Gas Corp.	0.07 %	0.07 %	1	0.03 %	343	-0.00 %	12 / 36	TC
Chesapeake Energy Corp.	0.02 %	0.02 %	9	0.17 %	270	0.01 %	6 / 36	ENV*
Chevron Corp.	1.06 %	1.06 %	181	3.35 %	463	-1.33 %	21 / 36	CDP
Cimarex Energy Co.	0.07 %	0.07 %	3	0.06 %	728	-0.04 %	30 / 36	PRE
Concho Resources, Inc.	0.11 %	0.11 %	2	0.03 %	343	-0.01 %	11 / 36	TC



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
ConocoPhillips	0.29 %	0.29 %	56	1.05 %	553	-0.51 %	26 / 36	CDP
Devon Energy Corp.	0.13 %	0.13 %	16	0.29 %	419	-0.09 %	19 / 36	CDP
EOG Resources, Inc.	0.29 %	0.29 %	16	0.30 %	491	-0.13 %	23 / 36	CDP
EQT Corp.	0.07 %	0.07 %	2	0.03 %	348	-0.01 %	13 / 36	TC
Exxon Mobil Corp.	1.97 %	1.97 %	394	7.31 %	515	-3.42 %	25 / 36	ENV
First Solar, Inc.	0.02 %	0.02 %	1	0.01 %	153	0.01 %	2 / 36	CDP
FMC Technologies, Inc.	0.04 %	0.04 %	2	0.03 %	147	0.03 %	1 / 36	PRE
Halliburton Co.	0.21 %	0.21 %	13	0.24 %	280	0.00 %	7 / 36	ENV*
Helmerich & Payne, Inc.	0.04 %	0.04 %	3	0.05 %	383	-0.01 %	15 / 36	TC
Hess Corp.	0.08 %	0.08 %	10	0.19 %	591	-0.10 %	28 / 36	CDP
Kinder Morgan, Inc.	0.24 %	0.24 %	7	0.13 %	291	-0.00 %	8 / 36	TC
Marathon Oil Corp.	0.07 %	0.07 %	9	0.17 %	444	-0.06 %	20 / 36	ENV*
Marathon Petroleum Corp.	0.12 %	0.12 %	78	1.45 %	417	-0.47 %	18 / 36	ENV*
Murphy Oil Corp.	0.03 %	0.03 %	7	0.13 %	749	-0.08 %	31 / 36	ENV*
National Oilwell Varco, Inc.	0.08 %	0.08 %	5	0.09 %	172	0.06 %	3 / 36	PRE
Newfield Exploration Co.	0.05 %	0.05 %	2	0.04 %	482	-0.02 %	22 / 36	CDP
Noble Energy, Inc.	0.08 %	0.08 %	5	0.09 %	497	-0.04 %	24 / 36	CDP
Occidental Petroleum Corp.	0.30 %	0.30 %	31	0.57 %	827	-0.38 %	33 / 36	OTH
Phillips 66	0.19 %	0.19 %	51	0.94 %	311	-0.08 %	9 / 36	PRE
Pioneer Natural Resources Co.	0.17 %	0.17 %	2	0.04 %	343	-0.01 %	10 / 36	TC
Range Resources Corp.	0.04 %	0.04 %	5	0.10 %	1,923	-0.08 %	36 / 36	PRE
Schlumberger NV	0.60 %	0.60 %	13	0.24 %	192	0.12 %	4 / 36	PRE
Southwestern Energy Co.	0.04 %	0.04 %	6	0.12 %	819	-0.08 %	32 / 36	AR*
Tesoro Corp.	0.05 %	0.05 %	32	0.59 %	570	-0.30 %	27 / 36	ENV*
The Williams Cos., Inc.	0.11 %	0.11 %	19	0.35 %	1,434	-0.28 %	35 / 36	PRE
Transocean Ltd.	0.02 %	0.02 %	7	0.13 %	385	-0.03 %	17 / 36	PRE
Valero Energy Corp.	0.13 %	0.13 %	65	1.21 %	382	-0.31 %	14 / 36	PRE
Personal & Household Goods	3.99 %	3.99 %	80	1.48 %	139	1.58 %		
Activision Blizzard, Inc.	0.16 %	0.16 %	0	0.00 %	16	0.04 %	1 / 28	TC
Church & Dwight Co., Inc.	0.07 %	0.07 %	1	0.01 %	114	0.02 %	19 / 28	PRE
Coach, Inc.	0.06 %	0.06 %	1	0.01 %	76	0.03 %	11 / 28	PRE
Colgate-Palmolive Co.	0.36 %	0.36 %	4	0.07 %	113	0.10 %	18 / 28	OTH
D.R. Horton, Inc.	0.06 %	0.06 %	2	0.03 %	97	0.07 %	15 / 28	TC
Electronic Arts, Inc.	0.14 %	0.14 %	0	0.00 %	22	0.03 %	2 / 28	TC
Estee Lauder Cos., Inc.	0.11 %	0.11 %	1	0.01 %	48	0.06 %	5 / 28	ENV*
Hanesbrands, Inc.	0.05 %	0.05 %	1	0.01 %	69	0.04 %	9 / 28	CDP



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Harman International Industries, Inc.	0.03 %	0.03 %	1	0.02 %	71	0.05 %	10 / 28	TC
Hasbro, Inc.	0.05 %	0.05 %	1	0.01 %	82	0.03 %	12 / 28	CDP
Kimberly-Clark Corp.	0.25 %	0.25 %	14	0.25 %	374	-0.06 %	27 / 28	PRE
Leggett & Platt, Inc.	0.03 %	0.03 %	1	0.03 %	180	0.01 %	24 / 28	TC
Lennar Corp.	0.04 %	0.04 %	2	0.03 %	93	0.06 %	14 / 28	TC
Mattel, Inc.	0.06 %	0.06 %	1	0.02 %	103	0.04 %	17 / 28	PRE
Michael Kors Holdings Ltd.	0.04 %	0.04 %	0	0.01 %	60	0.03 %	8 / 28	TC
Mohawk Industries, Inc.	0.07 %	0.07 %	5	0.09 %	382	-0.02 %	28 / 28	ENV*
Newell Brands, Inc.	0.14 %	0.14 %	2	0.03 %	153	0.03 %	22 / 28	PRE
NIKE, Inc.	0.39 %	0.39 %	4	0.07 %	90	0.15 %	13 / 28	PRE
Procter & Gamble Co.	1.30 %	1.30 %	22	0.42 %	138	0.44 %	20 / 28	CDP
PulteGroup, Inc.	0.03 %	0.03 %	1	0.02 %	100	0.03 %	16 / 28	TC
PVH Corp.	0.05 %	0.05 %	1	0.01 %	36	0.07 %	4 / 28	ENV
Ralph Lauren Corp.	0.03 %	0.03 %	0	0.01 %	31	0.05 %	3 / 28	ENV*
Snap-On, Inc.	0.05 %	0.05 %	2	0.03 %	228	0.01 %	26 / 28	TC
Stanley Black & Decker, Inc.	0.10 %	0.10 %	4	0.07 %	174	0.04 %	23 / 28	CDP
The Clorox Co.	0.09 %	0.09 %	2	0.03 %	150	0.03 %	21 / 28	CDP
Under Armour, Inc.	0.07 %	0.07 %	0	0.01 %	49	0.03 %	6 / 28	TC
VF Corp.	0.10 %	0.10 %	1	0.02 %	52	0.08 %	7 / 28	CDP
Whirlpool Corp.	0.07 %	0.07 %	9	0.16 %	212	0.05 %	25 / 28	OTH
Real Estate	3.12 %	3.12 %	18	0.33 %	125	0.43 %		
American Tower Corp.	0.26 %	0.26 %	1	0.01 %	85	0.03 %	17 / 28	PRE
Apartment Investment & Management Co.	0.04 %	0.04 %	0	0.00 %	80	0.01 %	8 / 28	TC
AvalonBay Communities, Inc.	0.13 %	0.13 %	0	0.01 %	81	0.01 %	9 / 28	CDP
Boston Properties, Inc.	0.11 %	0.11 %	0	0.01 %	82	0.02 %	14 / 28	TC
CBRE Group, Inc.	0.05 %	0.05 %	0	0.00 %	16	0.08 %	2 / 28	CDP*
Crown Castle International Corp.	0.17 %	0.17 %	0	0.00 %	26	0.03 %	5 / 28	TC
Digital Realty Trust, Inc.	0.08 %	0.08 %	0	0.00 %	24	0.02 %	4 / 28	TC
Equinix, Inc.	0.14 %	0.14 %	0	0.00 %	24	0.02 %	3 / 28	TC
Equity Residential	0.13 %	0.13 %	0	0.01 %	82	0.02 %	13 / 28	TC
Essex Property Trust, Inc.	0.08 %	0.08 %	0	0.00 %	82	0.01 %	15 / 28	TC
Extra Space Storage, Inc.	0.05 %	0.05 %	0	0.00 %	82	0.00 %	10 / 28	TC
Federal Realty Investment Trust	0.06 %	0.06 %	0	0.00 %	82	0.01 %	16 / 28	TC
General Growth Properties, Inc.	0.09 %	0.09 %	1	0.02 %	259	0.00 %	27 / 28	ENV*
HCP, Inc.	0.10 %	0.10 %	1	0.01 %	155	0.01 %	24 / 28	AR*
Host Hotels & Resorts, Inc.	0.06 %	0.06 %	1	0.02 %	110	0.03 %	20 / 28	CDP



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
<b>Company details</b>								
Iron Mountain, Inc.	0.05 %	0.05 %	1	0.01 %	111	0.02 %	21 / 28	PRE
Kimco Realty Corp.	0.07 %	0.07 %	0	0.00 %	77	0.01 %	7 / 28	CDP
Macerich Co.	0.05 %	0.05 %	0	0.00 %	124	0.01 %	22 / 28	CDP
Prologis, Inc.	0.15 %	0.15 %	0	0.00 %	14	0.02 %	1 / 28	CDP
Public Storage	0.18 %	0.18 %	1	0.01 %	192	0.01 %	26 / 28	TC
Realty Income Corp.	0.09 %	0.09 %	0	0.00 %	82	0.01 %	11 / 28	TC
Simon Property Group, Inc.	0.35 %	0.35 %	1	0.02 %	94	0.03 %	18 / 28	CDP
SL Green Realty Corp.	0.06 %	0.06 %	0	0.01 %	109	0.01 %	19 / 28	PRE
UDR, Inc.	0.05 %	0.05 %	0	0.00 %	82	0.01 %	12 / 28	TC
Ventas, Inc.	0.14 %	0.14 %	1	0.02 %	180	0.01 %	25 / 28	PRE
Vornado Realty Trust	0.09 %	0.09 %	1	0.01 %	145	0.01 %	23 / 28	ENV*
Welltower, Inc.	0.15 %	0.15 %	0	0.01 %	57	0.03 %	6 / 28	CDP
Weyerhaeuser Co.	0.13 %	0.13 %	7	0.12 %	458	-0.05 %	28 / 28	CDP
<b>Retail</b>	<b>8.01 %</b>	<b>8.01 %</b>	<b>161</b>	<b>2.99 %</b>	<b>49</b>	<b>17.08 %</b>		
Advance Auto Parts, Inc.	0.06 %	0.06 %	1	0.02 %	75	0.05 %	31 / 41	TC
Amazon.com, Inc.	1.79 %	1.79 %	10	0.18 %	68	0.58 %	23 / 41	TC
AmerisourceBergen Corp.	0.08 %	0.08 %	9	0.16 %	50	0.78 %	15 / 41	TC
AutoNation, Inc.	0.02 %	0.02 %	2	0.04 %	82	0.10 %	36 / 41	TC
AutoZone, Inc.	0.12 %	0.12 %	2	0.03 %	82	0.08 %	37 / 41	TC
Bed Bath & Beyond, Inc.	0.04 %	0.04 %	2	0.04 %	85	0.08 %	41 / 41	TC
Best Buy Co., Inc.	0.06 %	0.06 %	2	0.04 %	30	0.32 %	9 / 41	CDP
Cardinal Health, Inc.	0.13 %	0.13 %	4	0.07 %	21	0.89 %	2 / 41	CDP
CarMax, Inc.	0.06 %	0.06 %	2	0.04 %	83	0.09 %	38 / 41	TC
Costco Wholesale Corp.	0.36 %	0.36 %	9	0.16 %	40	1.01 %	10 / 41	PRE
CVS Health Corp.	0.52 %	0.52 %	7	0.12 %	24	1.35 %	4 / 41	CDP
Dollar General Corp.	0.10 %	0.10 %	2	0.04 %	70	0.12 %	26 / 41	TC
Dollar Tree, Inc.	0.10 %	0.10 %	1	0.02 %	71	0.06 %	29 / 41	TC
eBay, Inc.	0.19 %	0.19 %	1	0.02 %	25	0.16 %	5 / 41	CDP
Foot Locker, Inc.	0.05 %	0.05 %	1	0.02 %	75	0.05 %	32 / 41	TC
Gap, Inc.	0.03 %	0.03 %	1	0.02 %	52	0.08 %	17 / 41	CDP
Genuine Parts Co.	0.08 %	0.08 %	1	0.03 %	49	0.13 %	13 / 41	TC
H&R Block, Inc.	0.03 %	0.03 %	0	0.00 %	25	0.03 %	6 / 41	TC
Kohl's Corp.	0.04 %	0.04 %	2	0.04 %	64	0.15 %	22 / 41	CDP
L Brands, Inc.	0.09 %	0.09 %	1	0.02 %	53	0.08 %	18 / 41	CDP
Lowe's Cos., Inc.	0.34 %	0.34 %	8	0.14 %	74	0.41 %	30 / 41	CDP
Macy's, Inc.	0.06 %	0.06 %	4	0.07 %	70	0.22 %	27 / 41	TC



**TRUCOST** INC.



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
McKesson Corp.	0.20 %	0.20 %	10	0.19 %	29	1.68 %	8 / 41	PRE
Netflix, Inc.	0.23 %	0.23 %	0	0.00 %	22	0.05 %	3 / 41	TC
Nordstrom, Inc.	0.03 %	0.03 %	1	0.02 %	75	0.06 %	33 / 41	TC
O'Reilly Automotive, Inc.	0.14 %	0.14 %	1	0.02 %	83	0.05 %	39 / 41	TC
Ross Stores, Inc.	0.14 %	0.14 %	1	0.03 %	75	0.08 %	34 / 41	TC
Signet Jewelers Ltd.	0.03 %	0.03 %	1	0.01 %	75	0.03 %	35 / 41	TC
Staples, Inc.	0.03 %	0.03 %	1	0.02 %	20	0.22 %	1 / 41	CDP
Sysco Corp.	0.14 %	0.14 %	5	0.09 %	55	0.35 %	19 / 41	CDP
Target Corp.	0.21 %	0.21 %	8	0.15 %	58	0.60 %	20 / 41	CDP
The Home Depot, Inc.	0.87 %	0.87 %	8	0.15 %	50	0.70 %	16 / 41	CDP
The Kroger Co.	0.15 %	0.15 %	16	0.31 %	85	0.72 %	40 / 41	CDP*
The TJX Cos., Inc.	0.27 %	0.27 %	2	0.05 %	44	0.25 %	12 / 41	CDP
Tiffany & Co.	0.04 %	0.04 %	0	0.00 %	26	0.03 %	7 / 41	CDP
Tractor Supply Co.	0.05 %	0.05 %	1	0.01 %	50	0.05 %	14 / 41	TC
Ulta Salon, Cosmetics & Fragrance, Inc.	0.08 %	0.08 %	0	0.01 %	68	0.02 %	24 / 41	TC
Urban Outfitters, Inc.	0.02 %	0.02 %	0	0.01 %	69	0.02 %	25 / 41	TC
Wal-Mart Stores, Inc.	0.60 %	0.60 %	26	0.48 %	58	1.94 %	21 / 41	CDP
Walgreens Boots Alliance, Inc.	0.38 %	0.38 %	5	0.09 %	42	0.53 %	11 / 41	CDP
Whole Foods Market, Inc.	0.05 %	0.05 %	2	0.04 %	70	0.11 %	28 / 41	CDP
Technology	17.97 %	17.97 %	84	1.57 %	50	8.07 %		
Adobe Systems, Inc.	0.29 %	0.29 %	0	0.00 %	22	0.05 %	10 / 46	PRE
Akamai Technologies, Inc.	0.05 %	0.05 %	0	0.00 %	57	0.02 %	30 / 46	CDP
Alphabet, Inc.	2.54 %	2.54 %	4	0.07 %	32	0.59 %	17 / 46	PRE
Analog Devices, Inc.	0.11 %	0.11 %	1	0.01 %	105	0.02 %	37 / 46	PRE
Apple, Inc.	3.32 %	3.32 %	8	0.15 %	23	1.76 %	12 / 46	ENV*
Applied Materials, Inc.	0.18 %	0.18 %	1	0.02 %	60	0.07 %	31 / 46	CDP
Autodesk, Inc.	0.08 %	0.08 %	0	0.00 %	9	0.02 %	1 / 46	CDP
Broadcom Ltd.	0.37 %	0.37 %	1	0.02 %	146	0.02 %	42 / 46	TC
CA, Inc.	0.06 %	0.06 %	0	0.00 %	25	0.03 %	14 / 46	CDP*
Cerner Corp.	0.10 %	0.10 %	0	0.00 %	19	0.03 %	8 / 46	TC
Cisco Systems, Inc.	0.87 %	0.87 %	4	0.07 %	39	0.42 %	23 / 46	CDP
Citrix Systems, Inc.	0.07 %	0.07 %	0	0.00 %	16	0.03 %	3 / 46	TC
Cognizant Technology Solutions Corp.	0.16 %	0.16 %	1	0.01 %	33	0.09 %	18 / 46	CDP*
Corning, Inc.	0.13 %	0.13 %	4	0.08 %	233	0.02 %	46 / 46	PRE
F5 Networks, Inc.	0.04 %	0.04 %	0	0.00 %	16	0.02 %	4 / 46	TC
Facebook, Inc.	1.62 %	1.62 %	1	0.02 %	45	0.09 %	26 / 46	ENV*



TRUCOST<sup>TM</sup>



## Company Breakdown

### Portfolio

	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Company details								
Fidelity National Information Services, Inc.	0.14 %	0.14 %	0	0.00 %	18	0.06 %	6 / 46	TC
Garmin Ltd.	0.03 %	0.03 %	0	0.00 %	55	0.01 %	28 / 46	TC
HP, Inc.	0.14 %	0.14 %	9	0.17 %	43	0.97 %	25 / 46	CDP
Intel Corp.	0.97 %	0.97 %	9	0.17 %	85	0.40 %	34 / 46	ENV*
International Business Machines Corp.	0.75 %	0.75 %	5	0.10 %	35	0.67 %	20 / 46	ENV
Intuit, Inc.	0.15 %	0.15 %	0	0.00 %	15	0.04 %	2 / 46	CDP
Juniper Networks, Inc.	0.05 %	0.05 %	0	0.01 %	39	0.04 %	22 / 46	CDP*
KLA-Tencor Corp.	0.06 %	0.06 %	0	0.01 %	57	0.02 %	29 / 46	TC
Lam Research Corp.	0.08 %	0.08 %	1	0.02 %	146	0.02 %	40 / 46	CDP*
Linear Technology Corp.	0.08 %	0.08 %	0	0.01 %	126	0.01 %	39 / 46	TC
Microchip Technology, Inc.	0.07 %	0.07 %	1	0.02 %	203	0.01 %	43 / 46	PRE
Micron Technology, Inc.	0.10 %	0.10 %	7	0.13 %	221	0.04 %	44 / 46	CDP
Microsoft Corp.	2.44 %	2.44 %	5	0.09 %	30	0.80 %	16 / 46	CDP
Motorola Solutions, Inc.	0.07 %	0.07 %	1	0.01 %	60	0.05 %	32 / 46	ENV*
NetApp, Inc.	0.05 %	0.05 %	1	0.01 %	53	0.05 %	27 / 46	CDP
NVIDIA Corp.	0.20 %	0.20 %	0	0.00 %	22	0.04 %	11 / 46	ENV
Oracle Corp.	0.64 %	0.64 %	2	0.04 %	41	0.25 %	24 / 46	CDP
Pitney Bowes, Inc.	0.02 %	0.02 %	1	0.01 %	97	0.03 %	36 / 46	CDP
QUALCOMM, Inc.	0.55 %	0.55 %	2	0.03 %	33	0.23 %	19 / 46	ENV*
Red Hat, Inc.	0.08 %	0.08 %	0	0.00 %	16	0.01 %	5 / 46	TC
salesforce.com, inc.	0.25 %	0.25 %	0	0.00 %	29	0.04 %	15 / 46	CDP
Seagate Technology Plc	0.06 %	0.06 %	3	0.06 %	125	0.08 %	38 / 46	CDP
Skyworks Solutions, Inc.	0.08 %	0.08 %	1	0.01 %	146	0.01 %	41 / 46	TC
Symantec Corp.	0.08 %	0.08 %	0	0.01 %	37	0.06 %	21 / 46	OTH
Teradata Corp.	0.02 %	0.02 %	0	0.00 %	19	0.03 %	7 / 46	CDP*
Texas Instruments Incorporated	0.38 %	0.38 %	6	0.11 %	230	0.03 %	45 / 46	PRE
VeriSign, Inc.	0.04 %	0.04 %	0	0.00 %	23	0.01 %	13 / 46	TC
Western Digital Corp.	0.09 %	0.09 %	3	0.05 %	95	0.10 %	35 / 46	PRE
Xilinx, Inc.	0.07 %	0.07 %	0	0.00 %	21	0.02 %	9 / 46	CDP
Yahoo!, Inc.	0.21 %	0.21 %	1	0.01 %	69	0.04 %	33 / 46	PRE
Telecommunications	2.70 %	2.70 %	40	0.74 %	71	2.27 %		
AT&T, Inc.	1.36 %	1.36 %	20	0.37 %	79	0.99 %	3 / 5	CDP
CenturyLink, Inc.	0.08 %	0.08 %	5	0.09 %	133	0.10 %	5 / 5	PRE
Frontier Communications Corp.	0.03 %	0.03 %	0	0.00 %	26	0.04 %	1 / 5	TC
Level 3 Communications, Inc.	0.07 %	0.07 %	1	0.02 %	90	0.05 %	4 / 5	PRE
Verizon Communications, Inc.	1.15 %	1.15 %	14	0.25 %	55	1.06 %	2 / 5	CDP



## Company Breakdown

### Portfolio

Company details	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
Travel & Leisure	2.68 %	2.68 %	316	5.86 %	642	-3.36 %		
Alaska Air Group, Inc.	0.04 %	0.04 %	9	0.18 %	894	-0.12 %	14 / 18	ENV*
American Airlines Group, Inc.	0.11 %	0.11 %	83	1.53 %	1,070	-1.13 %	18 / 18	PRE
Carnival Plc	0.12 %	0.12 %	12	0.22 %	690	-0.13 %	13 / 18	PRE
Chipotle Mexican Grill, Inc.	0.07 %	0.07 %	1	0.02 %	124	0.02 %	8 / 18	TC
Darden Restaurants, Inc.	0.04 %	0.04 %	3	0.05 %	214	0.02 %	9 / 18	CDP
Delta Air Lines, Inc.	0.16 %	0.16 %	72	1.33 %	926	-0.93 %	15 / 18	PRE
Expedia, Inc.	0.08 %	0.08 %	0	0.01 %	27	0.05 %	3 / 18	TC
Marriott International, Inc.	0.12 %	0.12 %	7	0.12 %	284	-0.00 %	11 / 18	PRE
McDonald's Corp.	0.54 %	0.54 %	5	0.08 %	92	0.18 %	5 / 18	PRE
Royal Caribbean Cruises Ltd.	0.07 %	0.07 %	7	0.14 %	583	-0.07 %	12 / 18	PRE
Southwest Airlines Co.	0.13 %	0.13 %	38	0.71 %	1,015	-0.51 %	16 / 18	PRE
Starbucks Corp.	0.43 %	0.43 %	3	0.06 %	105	0.11 %	6 / 18	OTH*
The Priceline Group, Inc.	0.40 %	0.40 %	0	0.01 %	22	0.08 %	1 / 18	TC
TripAdvisor, Inc.	0.04 %	0.04 %	0	0.00 %	27	0.01 %	2 / 18	TC
United Continental Holdings, Inc.	0.08 %	0.08 %	68	1.27 %	1,037	-0.92 %	17 / 18	AR*
Wyndham Worldwide Corp.	0.04 %	0.04 %	1	0.02 %	88	0.04 %	4 / 18	CDP
Wynn Resorts Ltd.	0.04 %	0.04 %	1	0.01 %	124	0.02 %	7 / 18	TC
Yum! Brands, Inc.	0.18 %	0.18 %	6	0.12 %	261	0.01 %	10 / 18	OTH
Utilities	3.57 %	3.57 %	2,046	37.94 %	3,103	-35.71 %		
Alliant Energy Corp.	0.05 %	0.05 %	50	0.93 %	7,592	-0.89 %	30 / 30	CDP*
Ameren Corp.	0.06 %	0.06 %	60	1.12 %	5,043	-1.05 %	25 / 30	ENV*
American Electric Power Co., Inc.	0.17 %	0.17 %	225	4.17 %	6,975	-4.01 %	29 / 30	CDP
American Water Works Co., Inc.	0.07 %	0.07 %	1	0.03 %	245	0.00 %	2 / 30	CDP
CenterPoint Energy, Inc.	0.05 %	0.05 %	7	0.13 %	482	-0.05 %	7 / 30	PRE
CMS Energy Corp.	0.06 %	0.06 %	44	0.82 %	3,478	-0.75 %	18 / 30	OTH
Consolidated Edison, Inc.	0.12 %	0.12 %	11	0.20 %	435	-0.07 %	6 / 30	CDP
Dominion Resources, Inc.	0.25 %	0.25 %	101	1.88 %	4,421	-1.76 %	20 / 30	PRE
DTE Energy Co.	0.09 %	0.09 %	76	1.40 %	3,741	-1.30 %	17 / 30	CDP
Duke Energy Corp.	0.30 %	0.30 %	207	3.85 %	4,509	-3.61 %	21 / 30	ENV*
Edison International	0.13 %	0.13 %	5	0.10 %	201	0.04 %	1 / 30	ENV*
Entergy Corp.	0.07 %	0.07 %	71	1.31 %	2,881	-1.18 %	12 / 30	CDP
Eversource Energy	0.09 %	0.09 %	5	0.10 %	334	-0.01 %	4 / 30	PRE
Exelon Corp.	0.17 %	0.17 %	48	0.89 %	888	-0.61 %	9 / 30	CDP
FirstEnergy Corp.	0.08 %	0.08 %	97	1.80 %	3,250	-1.64 %	16 / 30	AR*
NextEra Energy, Inc.	0.31 %	0.31 %	98	1.81 %	2,897	-1.63 %	13 / 30	ENV*



## Company Breakdown

### Portfolio

Company details	Weighting		Carbon Apportioned		Carbon Intensity (tCO2e/\$mn)	Carbon Footprint Contribution (%)*	Footprint Rank in Benchmark Sector **	Data Source ***
	Portfolio	Benchmark	Tonnes CO2e	% of Portfolio's Total Carbon Apportioned				
NiSource, Inc.	0.04 %	0.04 %	27	0.49 %	2,901	-0.45 %	14 / 30	ENV*
NRG Energy, Inc.	0.02 %	0.02 %	173	3.21 %	6,158	-3.07 %	27 / 30	ENV*
ONEOK, Inc.	0.06 %	0.06 %	6	0.11 %	247	0.02 %	3 / 30	ENV*
PG&E Corp.	0.17 %	0.17 %	11	0.21 %	336	-0.03 %	5 / 30	CDP
Pinnacle West Capital Corp.	0.05 %	0.05 %	31	0.58 %	4,541	-0.54 %	22 / 30	ENV
PPL Corp.	0.13 %	0.13 %	65	1.21 %	4,316	-1.13 %	19 / 30	ENV*
Public Service Enterprise Group, Inc.	0.12 %	0.12 %	35	0.65 %	1,629	-0.53 %	10 / 30	ENV*
SCANA Corp.	0.06 %	0.06 %	27	0.50 %	3,169	-0.46 %	15 / 30	ENV*
Sempra Energy	0.15 %	0.15 %	16	0.29 %	714	-0.17 %	8 / 30	CDP
Spectra Energy Corp.	0.16 %	0.16 %	20	0.38 %	1,781	-0.32 %	11 / 30	ENV*
The AES Corp.	0.05 %	0.05 %	139	2.57 %	4,642	-2.42 %	23 / 30	AR*
The Southern Co.	0.27 %	0.27 %	210	3.88 %	6,114	-3.71 %	26 / 30	ENV*
WEC Energy Group, Inc.	0.10 %	0.10 %	74	1.37 %	6,326	-1.31 %	28 / 30	ENV*
Xcel Energy, Inc.	0.11 %	0.11 %	107	1.98 %	4,920	-1.86 %	24 / 30	CDP
<b>Portfolio Total</b>	<b>100.00 %</b>	<b>99.75 %</b>	<b>5,393</b>	<b>100.00 %</b>	<b>284</b>			

Note that the weighting for the benchmark will not always total 100% as the stocks shown are only for those held by the portfolio.

\* The Carbon Footprint Contribution is the percentage decrease in performance between what the Carbon Footprint of the portfolio would be without the holding and what the Carbon Footprint is currently. This is a measurement of how much a specific holding reduces the carbon performance of the portfolio.

\*\* Footprint rank in benchmark sector - A ranking of one indicates that the stock has the lowest carbon footprint among the stocks in the benchmark sector. An entry of N/A indicates that the stock is not a member of the benchmark.

\*\*\* Definitions of the Data Sources may be found in section 5 of this report.



**TRUCOST<sup>®</sup>**



## 9 Next Steps

### Make portfolio adjustments

- Reduce risk by rebalancing holdings to favour companies with greater carbon or environmental efficiency relative to sector peers.

### Embed environmental analysis into your investment strategy

- Trucost provides standardized data on all companies across the investment universe to help identify carbon and environmental opportunities. We also have time series data and can customize research to meet your requirements.

### Engage with companies

- The chart on page 8 shows companies with which you may choose to engage with to encourage them to disclose better environmental data, providing greater transparency for investors and setting them on the course to appropriate measurement and management of GHG emissions.

### WHY CHOOSE TRUCOST DATA?

**Standardized:** company disclosed data is standardized to enable comparison between companies, funds, sectors and geographies.

**Validated:** company disclosed data is validated to resolve reporting errors.

**Comprehensive:** where companies do not measure or disclose data, Trucost 'fills the gaps' using its advanced environmental profiling model to provide complete data across the investment universe.

**Proven:** Trucost data has been used to analyze over \$2.7trillion AUM and drives \$583million in investment products that deliver financial performance with up to 50% reduced carbon intensity e.g. S&P US Carbon Efficient Index and the Legal and General Investment Management US Carbon Optimised Index Fund.

"Carbon footprints of portfolios are the only metric of any value to assess ESG issues. The detailed analysis has enabled us to judge how serious our fund managers are about ESG issues such as carbon mitigation, to compare our portfolios against the carbon benchmark and identify sore thumbs and possible charges to reduce our footprint without altering the asset allocation strategy."

Michael Taylor, Chief Executive, London Pension Fund Authority

### Communicate your footprint to stakeholders

- You may choose to communicate your footprint to stakeholders to demonstrate that you actively consider carbon exposure in your investments and provide transparency about the risk exposure or benefits of the fund.

### Invest in carbon optimised funds

- Trucost data has been used by some funds to create carbon optimised portfolios, passive, active and long/short strategies. Some examples of these products include:

#### Passive

- » S&P US Carbon Efficient Index
- » LGIM US Carbon Optimised Index Fund
- » UBS Europe Carbon Optimised Index

#### Active

- » BofA Merrill Lynch Carbon Leaders Europe Index
- » NYSE Euronext Low Carbon 100 Europe Index
- » Virgin Money Climate Change Fund

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