

# MSCI IndexMetrics®

MSCI WORLD LOW CARBON LEADERS INDEX

MSCI EM LOW CARBON LEADERS INDEX

September 2022

# MSCI World Low Carbon Leaders Index

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# Key Metrics

## Key Metrics

	MSCI World Index	MSCI World Low Carbon Leaders Index - Current	MSCI World Low Carbon Leaders Index - Simulated
Total Return* (%)	0.6	0.4	-0.1
Total Risk (%)	15.8	15.7	15.9
Return / Risk	0.04	0.02	-0.01
Sharpe Ratio	0.02	0.01	-0.03
Active Return (%)	0.0	-0.2	-0.7
Tracking Error (%)	0.0	0.3	0.5
Information Ratio		-0.50	-1.32
Historical Beta	1.00	1.00	1.01
Number of Constituents***	1552	1228	1227
Turnover** (%)	1.6	9.1	14.2
Price to Book***	3.1	3.0	3.0
Price to Earnings***	22.6	22.1	22.1
Dividend Yield*** (%)	1.8	1.8	1.8

Period: Dec 31, 2020 to Aug 31, 2022. \* Gross returns annualized in USD \*\* Annualized one-way index turnover over index reviews \*\*\* Monthly averages

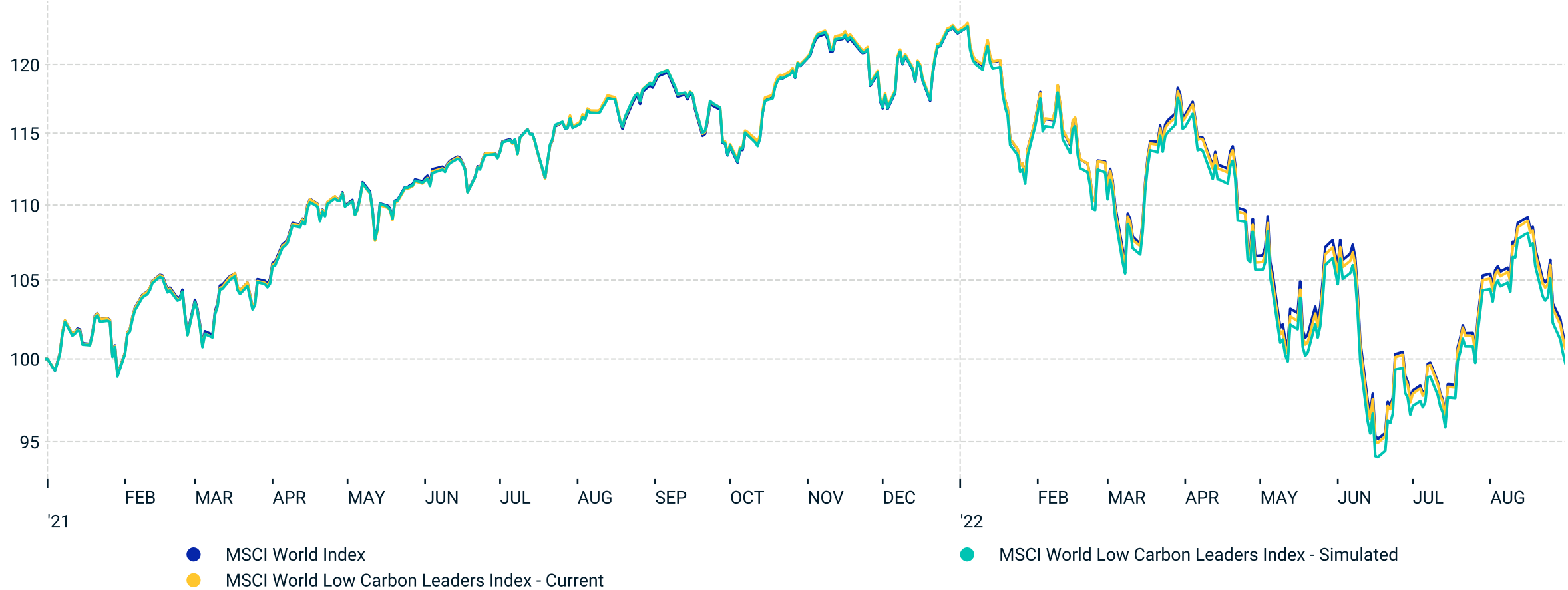
## Performance (%)

	MSCI World Index	MSCI World Low Carbon Leaders Index - Current	MSCI World Low Carbon Leaders Index - Simulated
YTD	-17.5	-17.9	-18.5
1 Yr	-14.7	-15.1	-15.8
3 Yr			
5 Yr			
10 Yr			

Gross returns for the period ending Aug 31, 2022. Returns are annualized for periods longer than a year

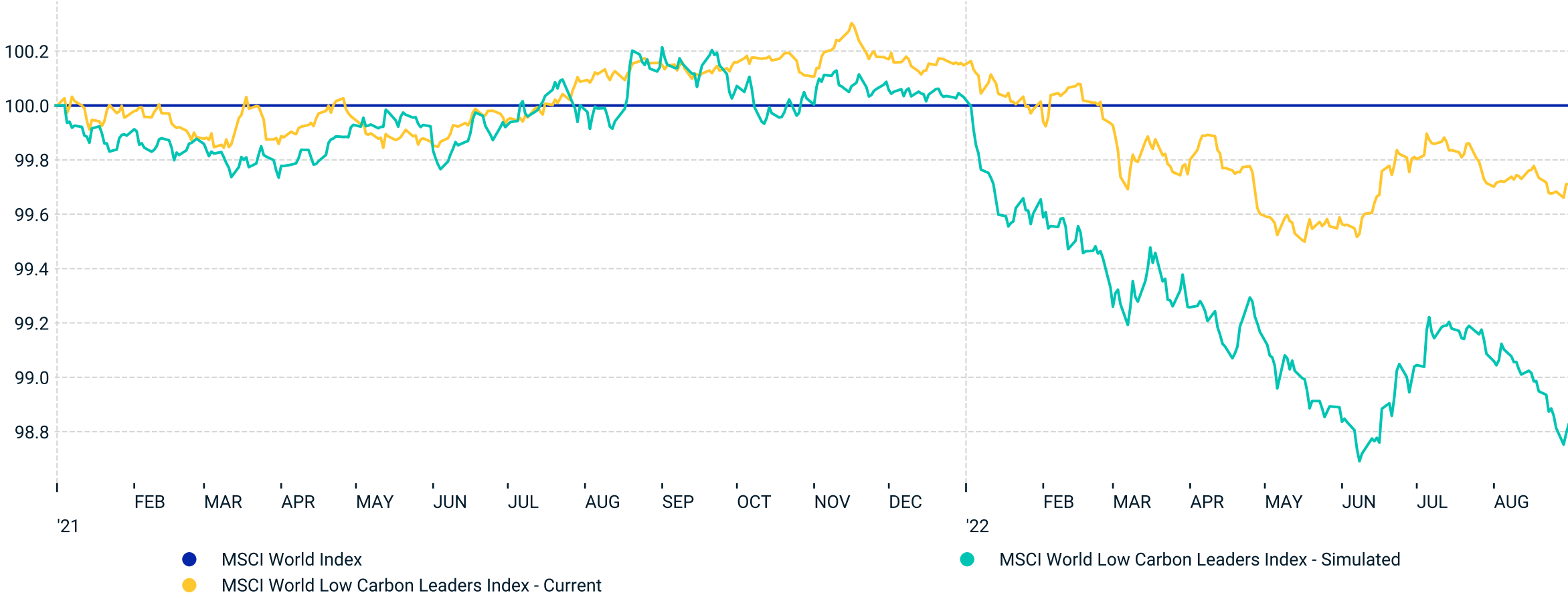
# Key Metrics

## Index Performance (USD)



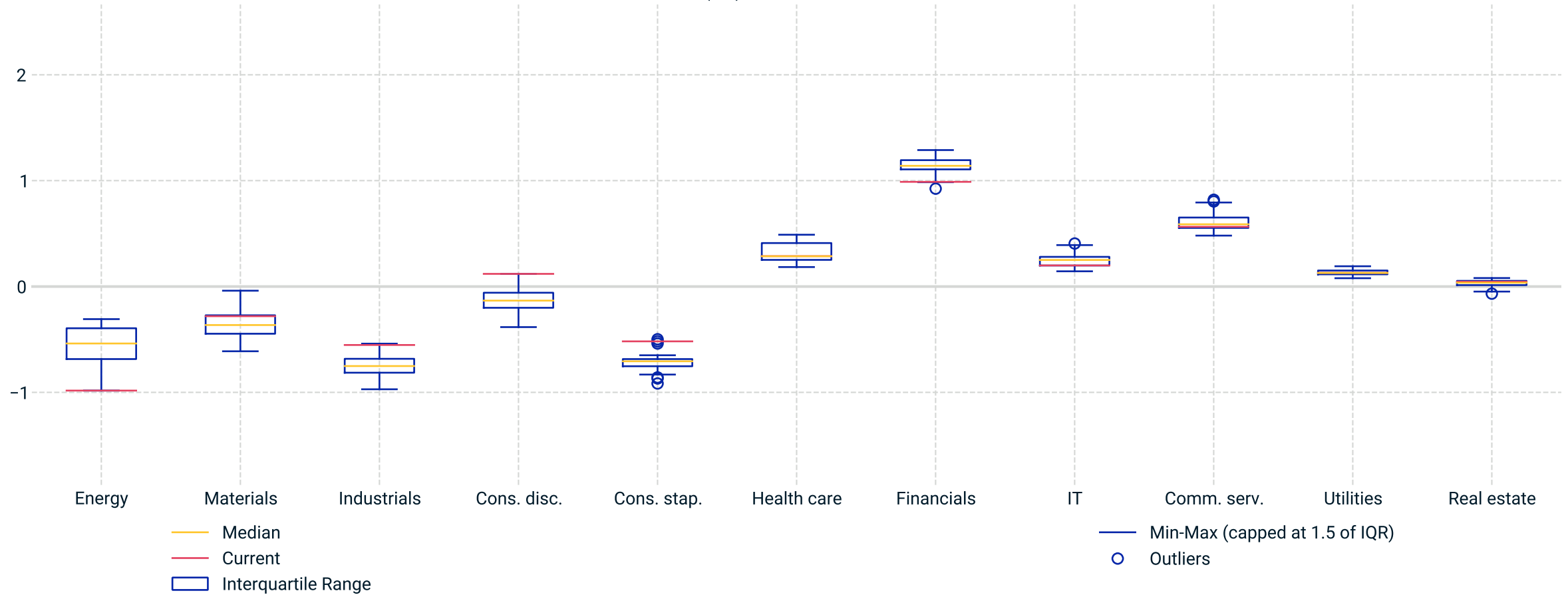
# Key Metrics

## Relative Performance



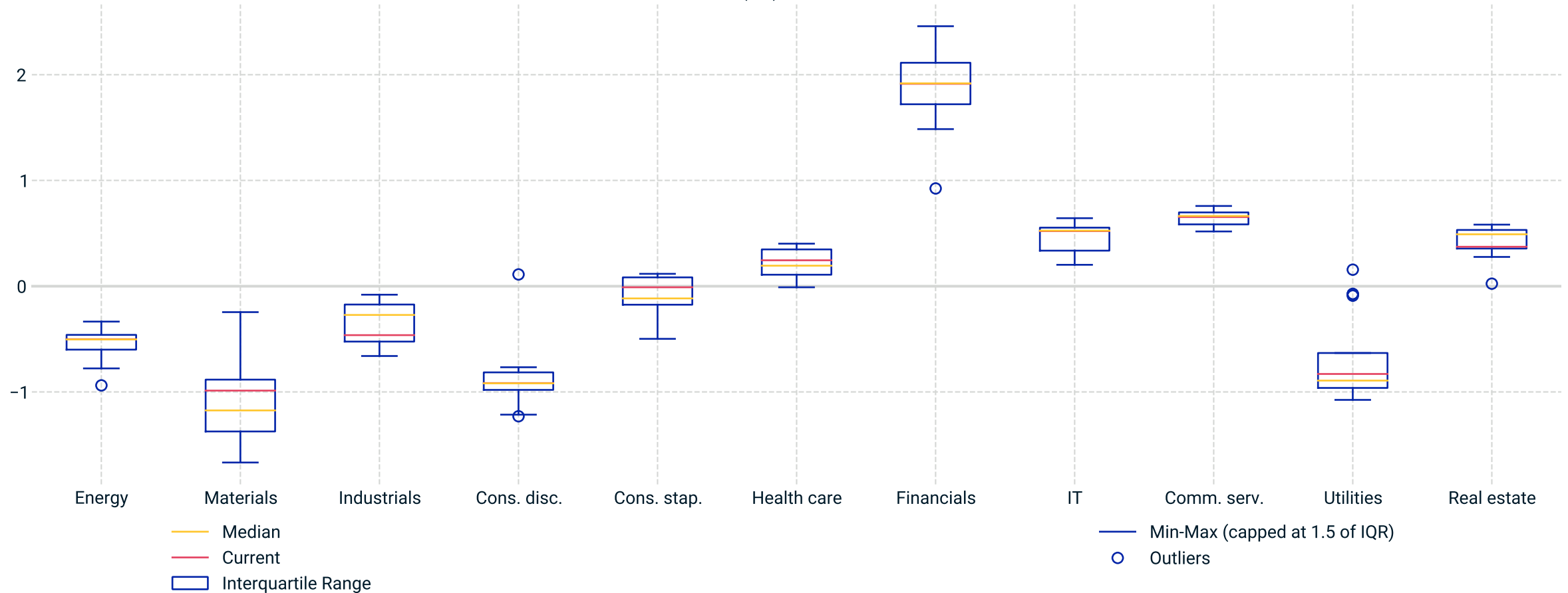
# Active Sector Exposures

## MSCI World Low Carbon Leaders Index - Current (%)



# Active Sector Exposures

## MSCI World Low Carbon Leaders Index - Simulated (%)



# Active Sector Exposures

MSCI World Low Carbon Leaders Index - Current (%)

	Min	Max	Average	Current
<b>Energy</b>	-1.0	-0.3	-0.6	-1.0
<b>Materials</b>	-0.6	-0.0	-0.3	-0.3
<b>Industrials</b>	-1.0	-0.5	-0.7	-0.6
<b>Cons. Disc.</b>	-0.4	0.1	-0.1	0.1
<b>Cons. Stap.</b>	-0.9	-0.5	-0.7	-0.5
<b>Health Care</b>	0.2	0.5	0.3	0.3
<b>Financials</b>	0.9	1.3	1.1	1.0
<b>IT</b>	0.1	0.4	0.2	0.2
<b>Comm. Serv.</b>	0.5	0.8	0.6	0.6
<b>Utilities</b>	0.1	0.2	0.1	0.1
<b>Real Estate</b>	-0.1	0.1	0.0	0.0

Period: Dec 31, 2020 to Aug 31, 2022, monthly data.

MSCI World Low Carbon Leaders Index - Simulated (%)

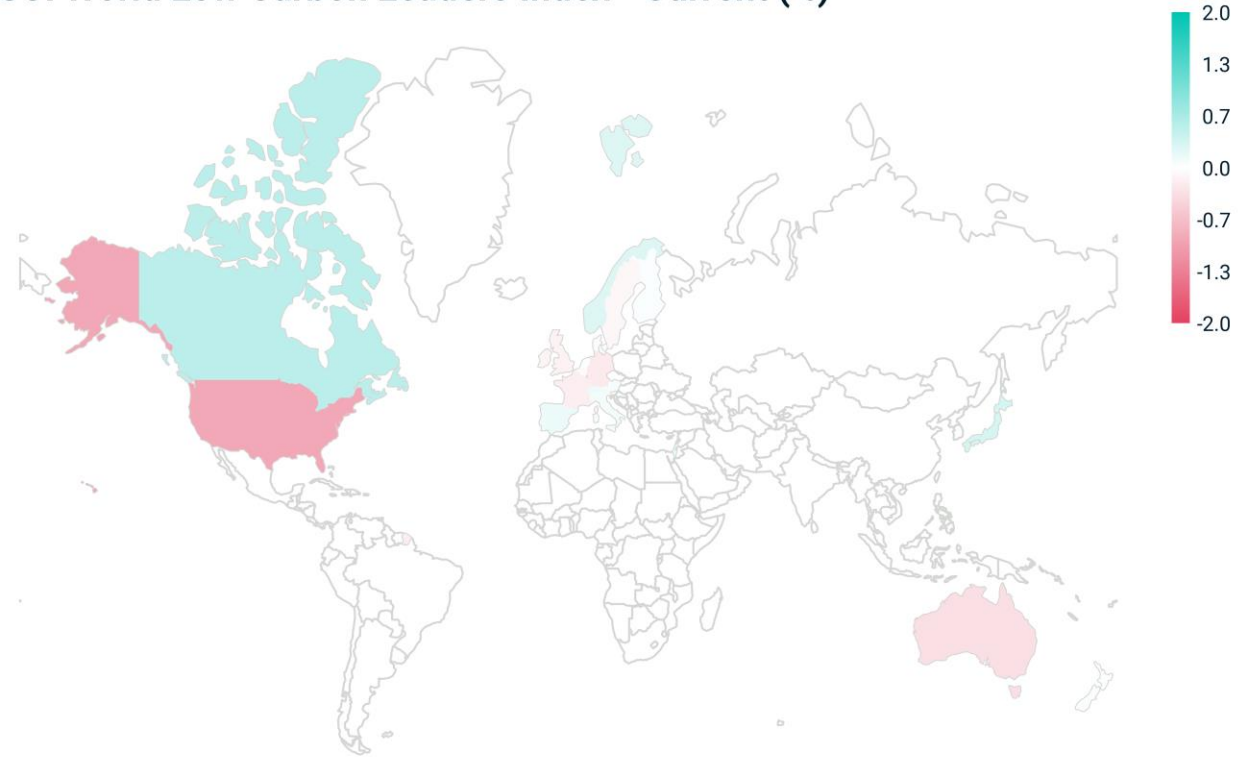
	Min	Max	Average	Current
<b>Energy</b>	-0.9	-0.3	-0.5	-0.5
<b>Materials</b>	-1.7	-0.2	-1.1	-1.0
<b>Industrials</b>	-0.7	-0.1	-0.3	-0.5
<b>Cons. Disc.</b>	-1.2	0.1	-0.9	-0.9
<b>Cons. Stap.</b>	-0.5	0.1	-0.1	-0.0
<b>Health Care</b>	-0.0	0.4	0.2	0.2
<b>Financials</b>	0.9	2.5	1.9	1.9
<b>IT</b>	0.2	0.6	0.5	0.5
<b>Comm. Serv.</b>	0.5	0.8	0.6	0.7
<b>Utilities</b>	-1.1	0.2	-0.7	-0.8
<b>Real Estate</b>	0.0	0.6	0.4	0.4

Period: Dec 31, 2020 to Aug 31, 2022, monthly data.



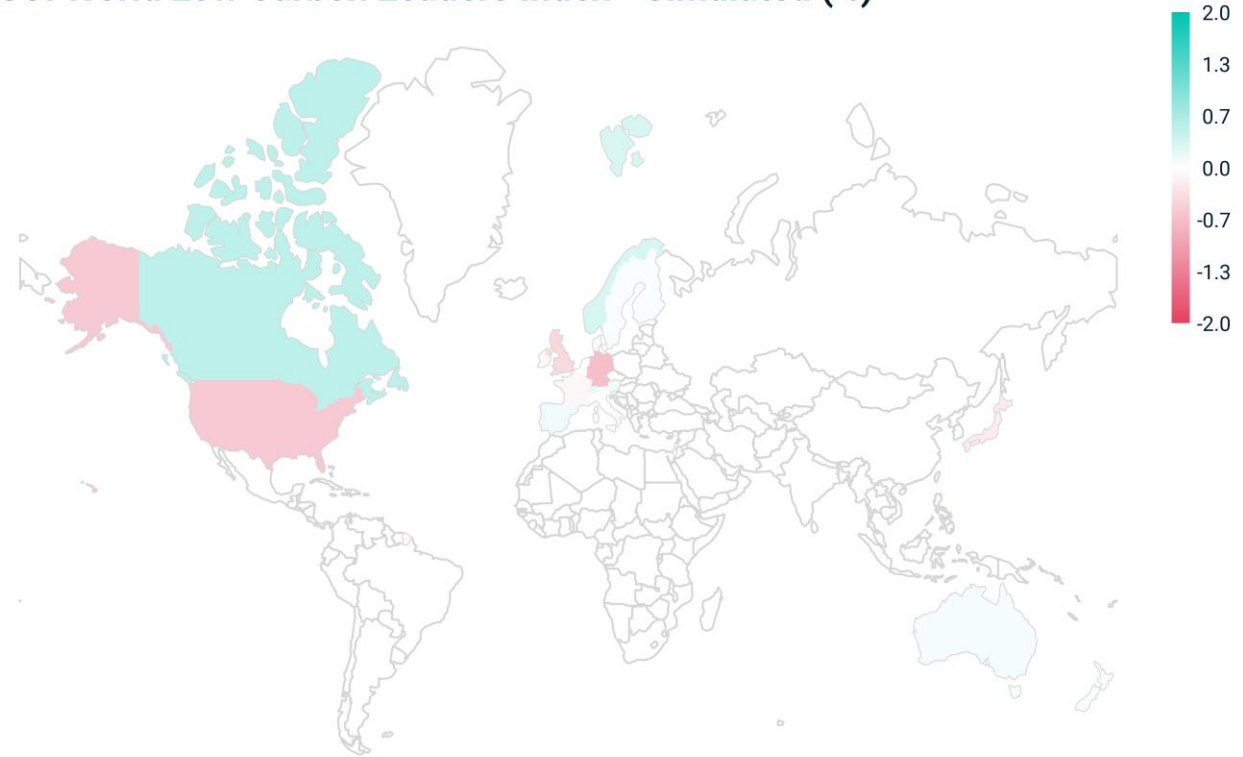
# Active Country Exposures Geo Map

MSCI World Low Carbon Leaders Index - Current (%)



# Active Country Exposures Geo Map

MSCI World Low Carbon Leaders Index - Simulated (%)



# ESG Metrics

## Integration, Values and Norms

	MSCI World Index	MSCI World Low Carbon Leaders Index - Current	MSCI World Low Carbon Leaders Index - Simulated
<b>Integration</b>			
ESG Score	6.8	6.8	6.9
ESG Leaders (AAA-AA) (%)	38.7	40.4	39.9
ESG Laggards (B-CCC) (%)	1.9	2.1	1.6
ESG Trend Positive (%)	36.3	37.3	36.2
ESG Trend Negative (%)	2.7	2.9	2.8
Index ESG Rating	AAA	AAA	AAA
Environmental Pillar Score	6.1	6.3	6.3
Social Pillar Score	5.2	5.2	5.2
Governance Pillar Score	5.7	5.7	5.7
<b>Key Governance Metrics</b>			
Board Independence (wtd Avg %)	80.0	79.5	79.7
Female Directors (wtd Avg %)	33.5	33.2	33.5
Deviation from One Share One Vote (%)	20.9	21.1	21.2
<b>Values and Norms</b>			
Tobacco Involvement (%)	1.0	1.2	1.2
Civilian Firearms Producers (%)	0.1	0.1	0.1
Ties to Controversial Weapons (%)	0.6	0.7	0.0
Global Compact Compliance Violation (%)	0.4	0.1	0.0
Red Flag Controversies (%)	0.5	0.1	0.0
Orange Flag Controversies (%)	34.3	33.0	31.3

As of August 31, 2022.

# ESG Metrics

## Climate Change

	MSCI World Index	MSCI World Low Carbon Leaders Index - Current	MSCI World Low Carbon Leaders Index - Simulated
<b>Climate Footprint</b>			
Carbon Intensity – Scope 1 + 2 + 3 (Wtd Avg t CO2e/\$M EVIC)	354	304	164
Carbon Intensity – Scope 1 + 2 (Wtd Avg t CO2e/\$M EVIC)	45	24	19
Carbon Emissions to Sales – Scope 1 + 2 + 3 (Wtd Avg t CO2e/\$M Sales)	1042	811	805
Carbon Emissions to Sales – Scope 1 + 2 (Wtd Avg t CO2e/\$M Sales)	151	70	95
<b>Low Carbon Transition Risks</b>			
Low Carbon Transition Score	6.1	6.2	6.2
Solutions (%)	8.7	8.8	9.2
Product & Operational Transition (%)	15.2	12.4	10.3
Asset Stranding (%)	0.5	0.0	0.6
<b>Exposure to Asset Stranding Risks</b>			
Potential Carbon Emissions (t CO2e/\$M Invested)	1339	538	515
Fossil Fuel Reserves (%)	6.5	3.9	4.3
Thermal Coal Mining (%)	0.8	0.5	0.0
Thermal Coal-Based Power Generation (%)	2.8	1.5	1.5
Unconventional Oil & Gas Extraction (%)	4.2	2.7	2.8
<b>Exposure to Clean Technology Solutions</b>			
Clean Technologies Solutions (> 20% Revenue)	9.8	9.7	9.7
Clean Technologies Solutions Revenue (wtd Avg %)	5.5	5.5	5.5
Green/fossil Fuel-Based Net Revenue Exposure	2.1	3.0	2.2
<b>Other Climate Metrics</b>			
Exposure to Carbon-Related Assets (%)	8.2	7.3	6.8
Climate-Related Controversies (% Score ≤ 4)	0.8	0.7	0.1
Low Carbon Transition Management Score (% Top Quartile)	72.1	73.1	73.0

As of August 31, 2022.

# GEMLT Active Perf. Attribution

MSCI World Low Carbon Leaders Index - Current vs MSCI World Index

Annualized gross returns in USD



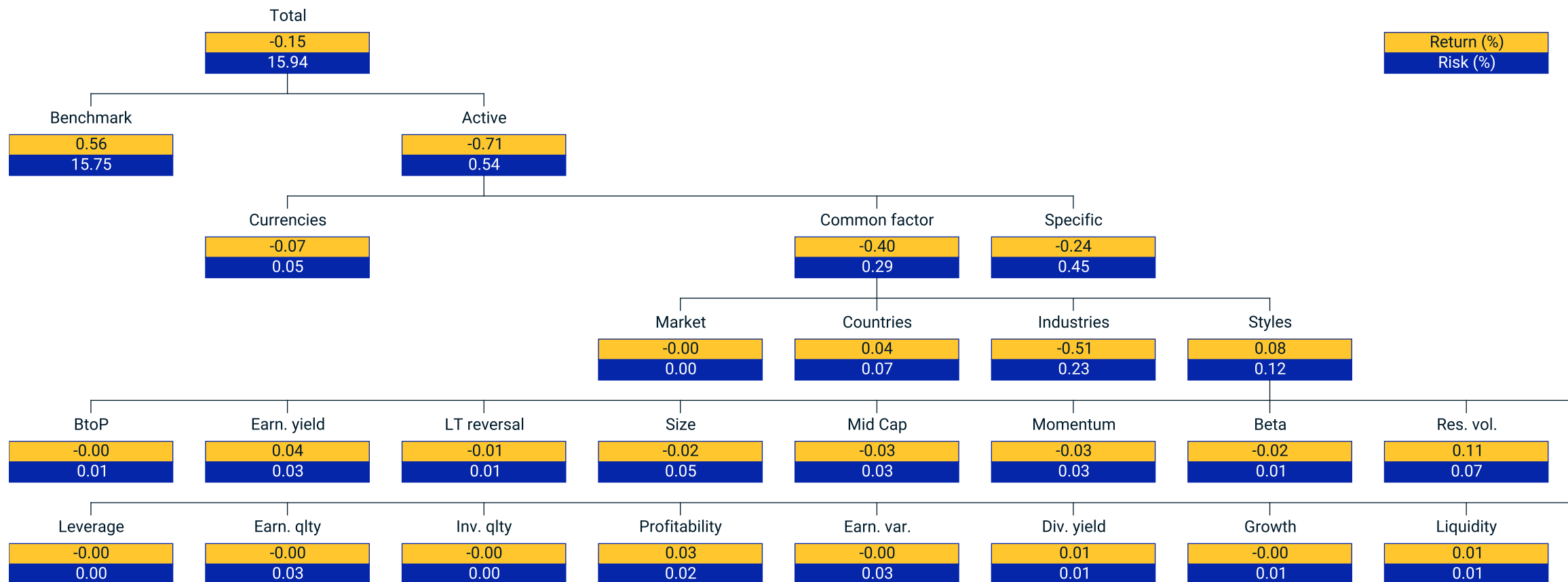
Period: Dec 31, 2020 to Aug 31, 2022.



# GEMLT Active Perf. Attribution

MSCI World Low Carbon Leaders Index - Simulated vs MSCI World Index

Annualized gross returns in USD

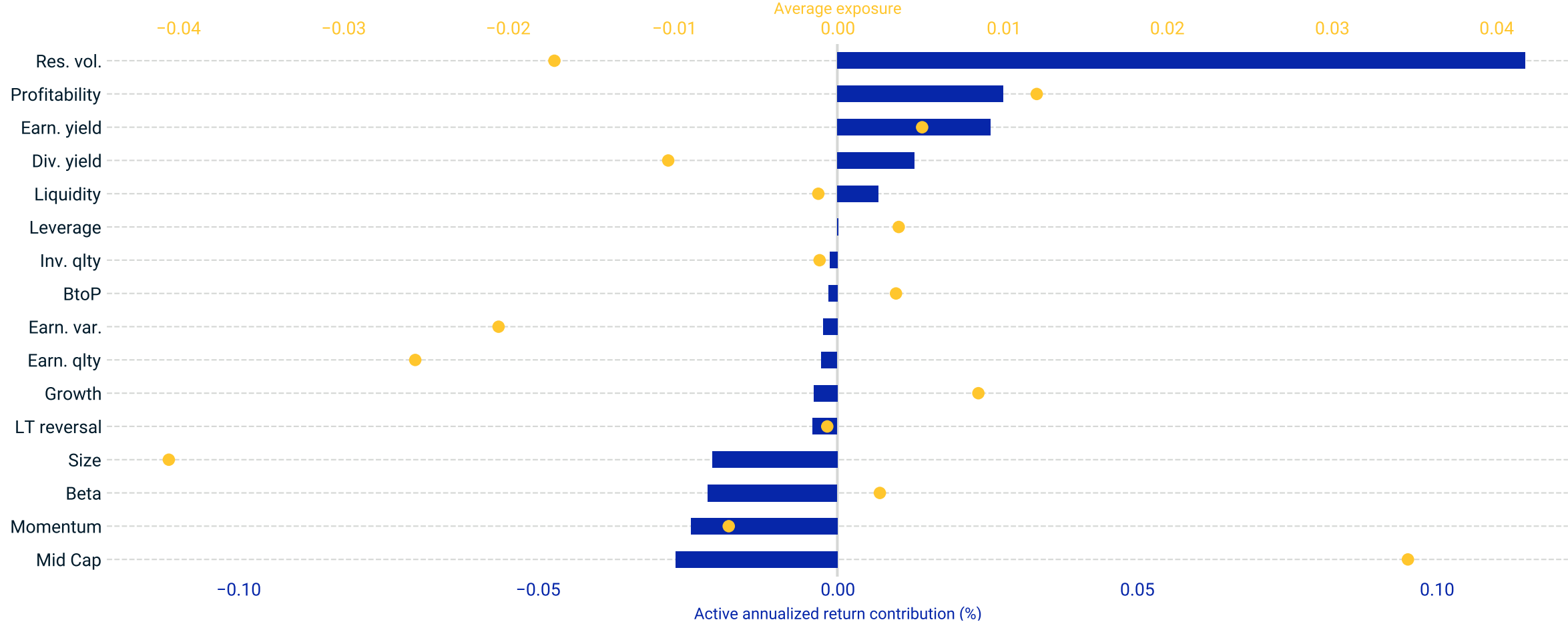


Period: Dec 31, 2020 to Aug 31, 2022.



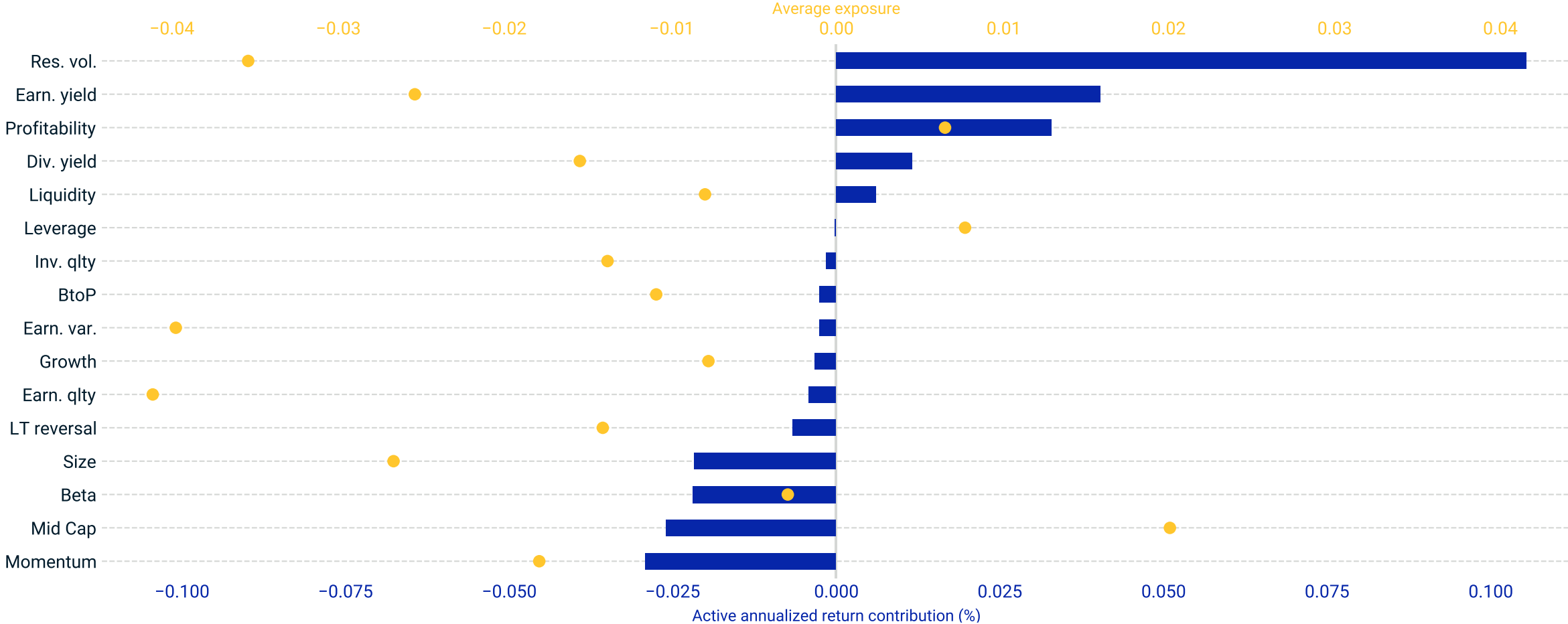
# GEMLT Active Perf. Attribution: Styles

## MSCI World Low Carbon Leaders Index - Current



# GEMLT Active Perf. Attribution: Styles

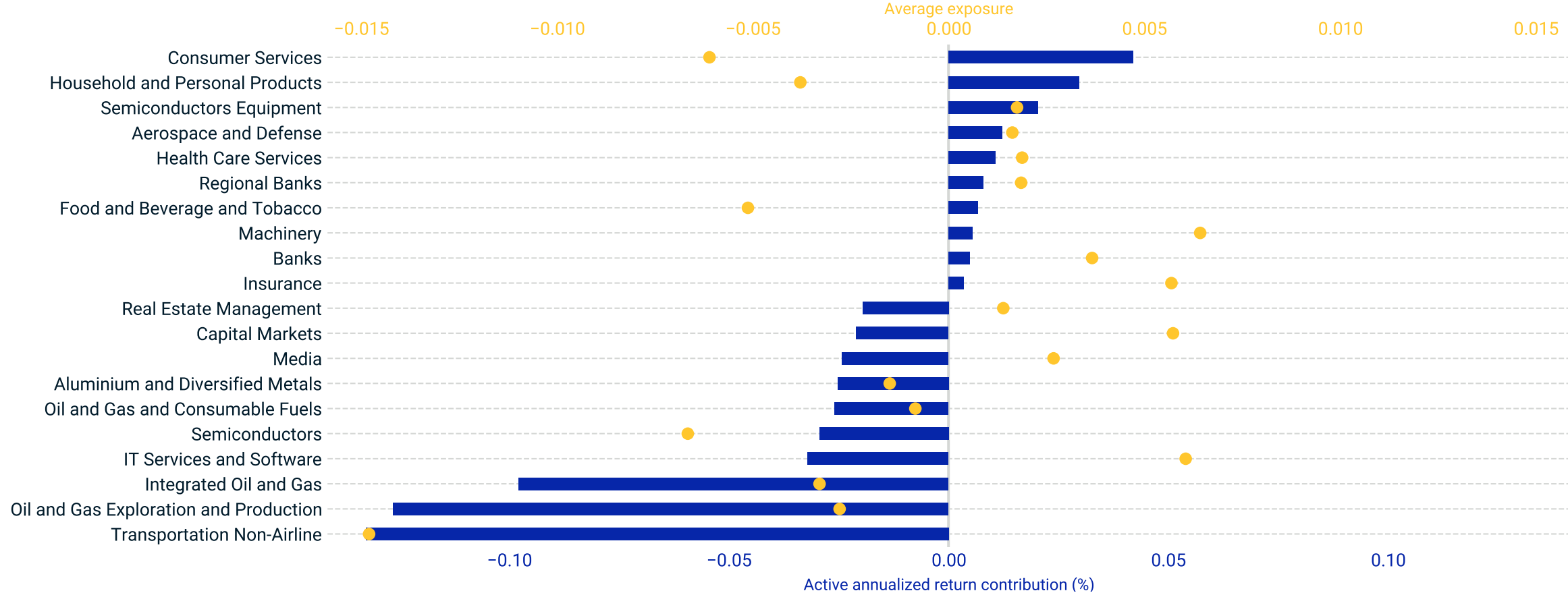
## MSCI World Low Carbon Leaders Index - Simulated





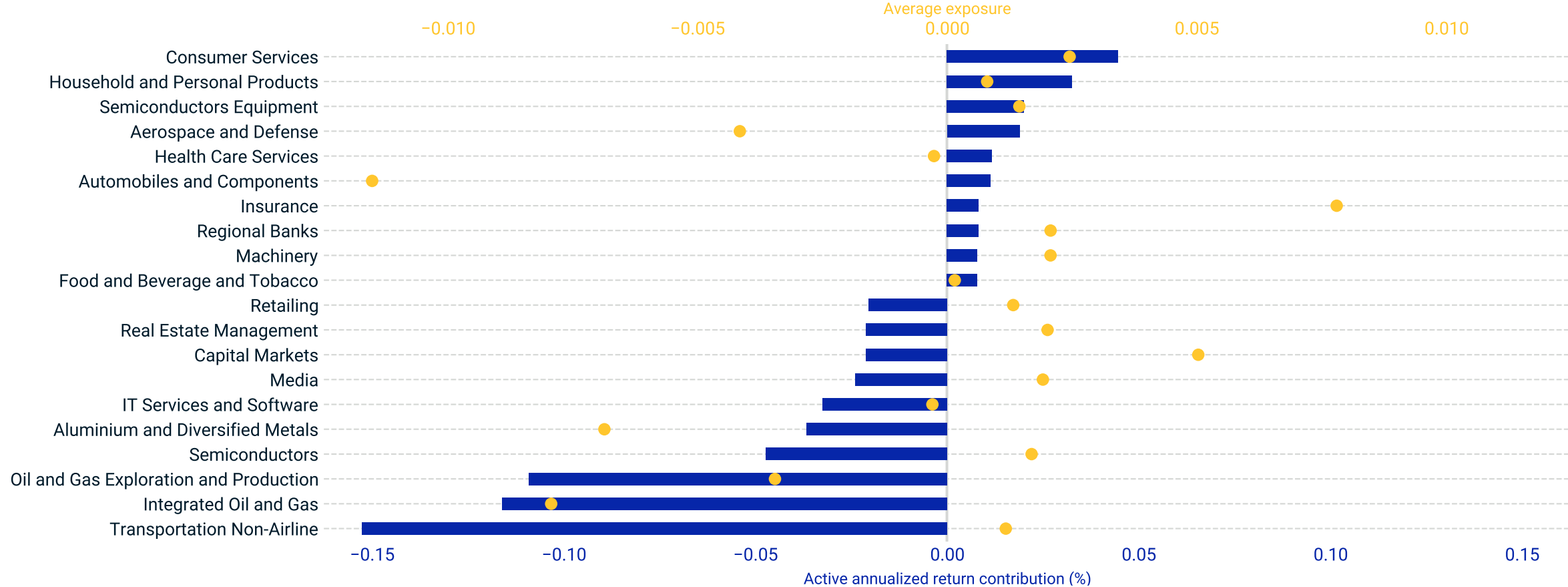
# GEMLT Active Perf. Attribution: Industries

## MSCI World Low Carbon Leaders Index - Current Top / Bottom 10



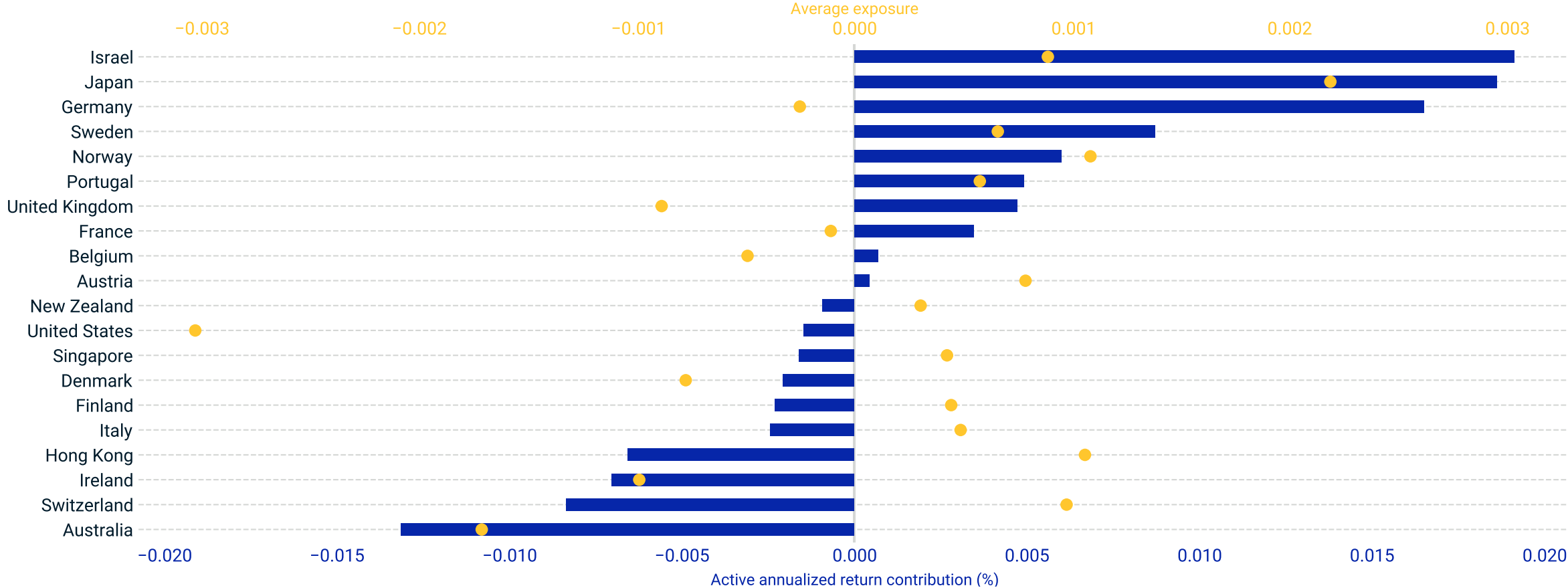
# GEMLT Active Perf. Attribution: Industries

## MSCI World Low Carbon Leaders Index - Simulated Top / Bottom 10



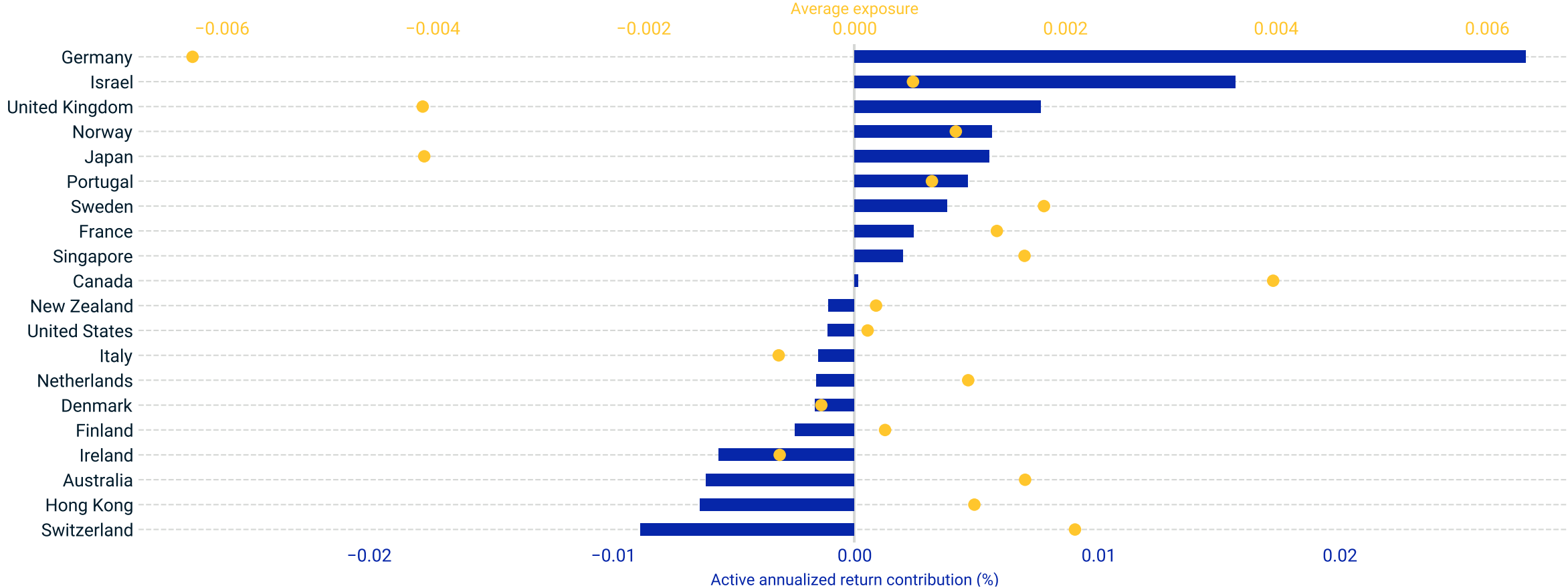
# GEMLT Active Perf. Attribution: Countries

## MSCI World Low Carbon Leaders Index - Current Top / Bottom 10



# GEMLT Active Perf. Attribution: Countries

## MSCI World Low Carbon Leaders Index - Simulated Top / Bottom 10



# MSCI EM Low Carbon Leaders Index

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# Key Metrics

## Key Metrics

	MSCI EM (Emerging Markets) Index	MSCI EM Low Carbon Leaders Index - Current	MSCI EM Low Carbon Leaders Index - Simulated
Total Return* (%)	-11.9	-12.0	-12.0
Total Risk (%)	10.8	10.0	10.3
Return / Risk	-1.11	-1.20	-1.16
Sharpe Ratio	-1.13	-1.23	-1.19
Active Return (%)	0.0	-0.0	-0.0
Tracking Error (%)	0.0	1.5	1.1
Information Ratio		-0.03	-0.02
Historical Beta	1.00	0.92	0.95
Number of Constituents***	1402	978	955
Turnover** (%)	4.8	16.6	19.7
Price to Book***	1.9	1.9	1.9
Price to Earnings***	15.5	15.7	15.7
Dividend Yield*** (%)	2.3	2.3	2.3

Period: Dec 31, 2020 to Aug 31, 2022. \* Gross returns annualized in USD \*\* Annualized one-way index turnover over index reviews \*\*\* Monthly averages

## Performance (%)

	MSCI EM (Emerging Markets) Index	MSCI EM Low Carbon Leaders Index - Current	MSCI EM Low Carbon Leaders Index - Simulated
YTD	-17.2	-16.8	-16.6
1 Yr	-21.5	-21.3	-21.0
3 Yr			
5 Yr			
10 Yr			

Gross returns for the period ending Aug 31, 2022. Returns are annualized for periods longer than a year

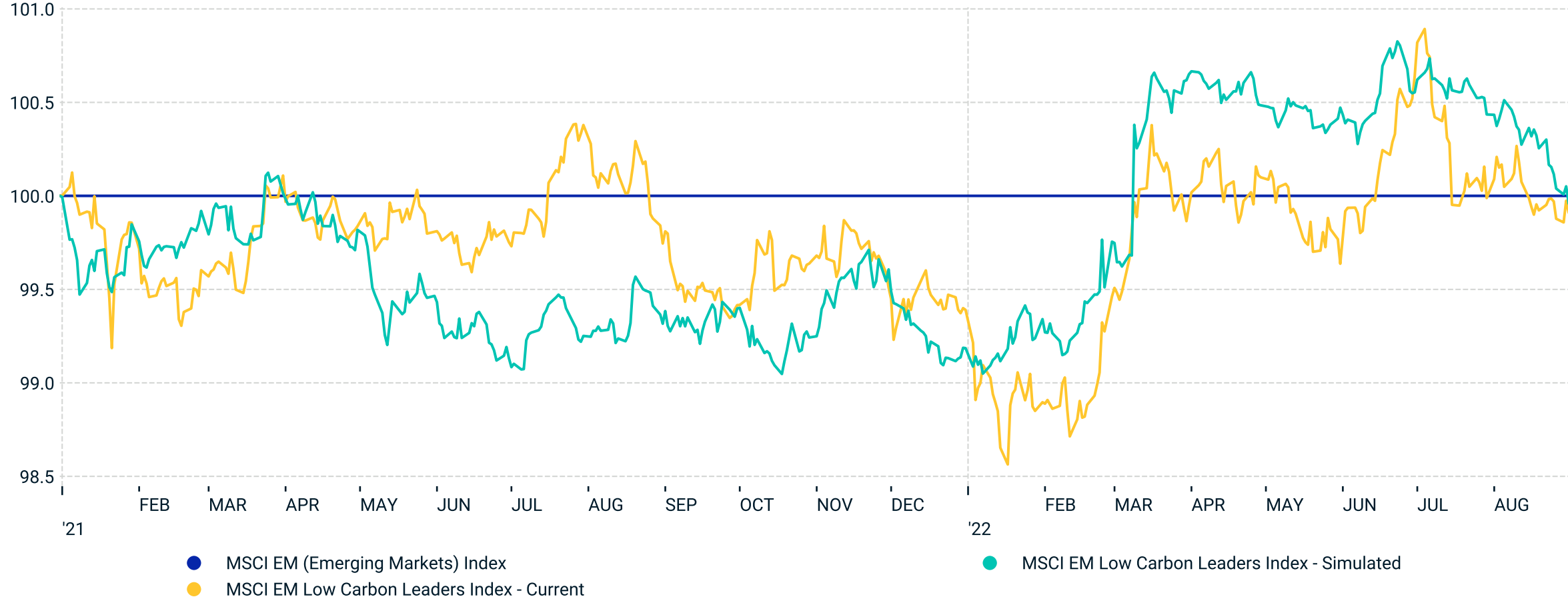
# Key Metrics

## Index Performance (USD)



# Key Metrics

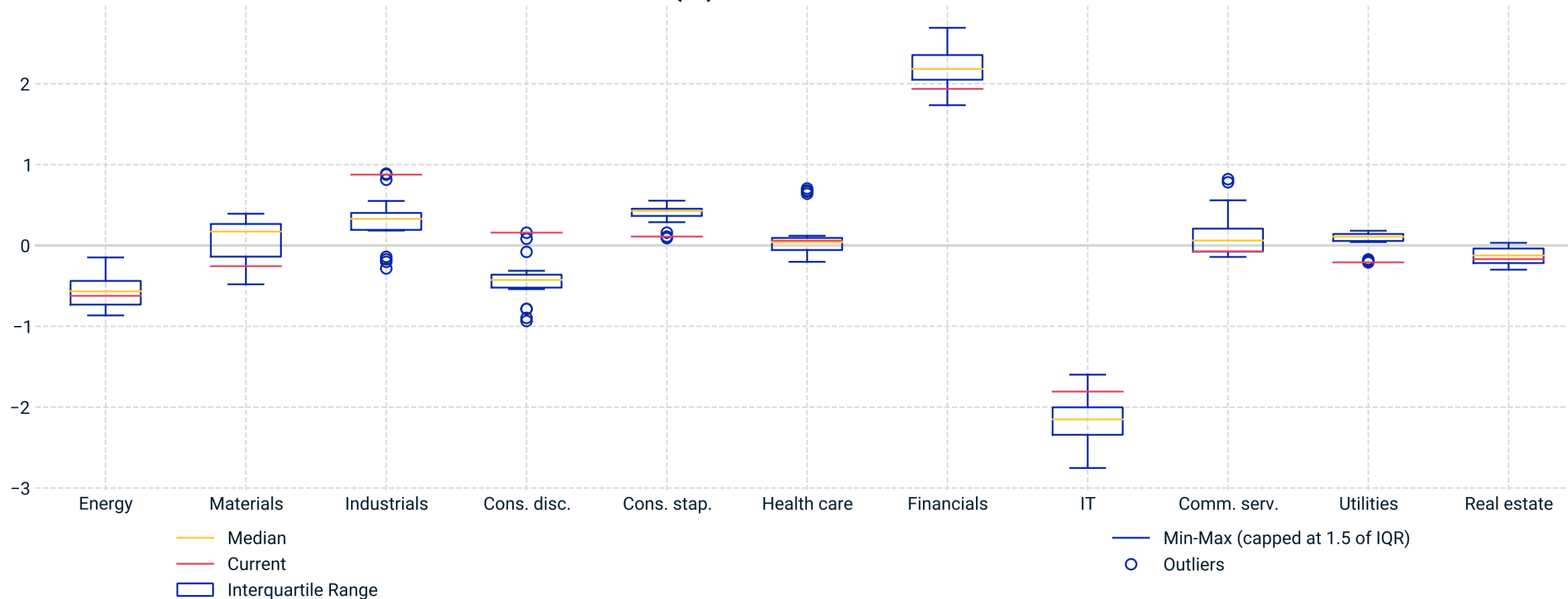
## Relative Performance





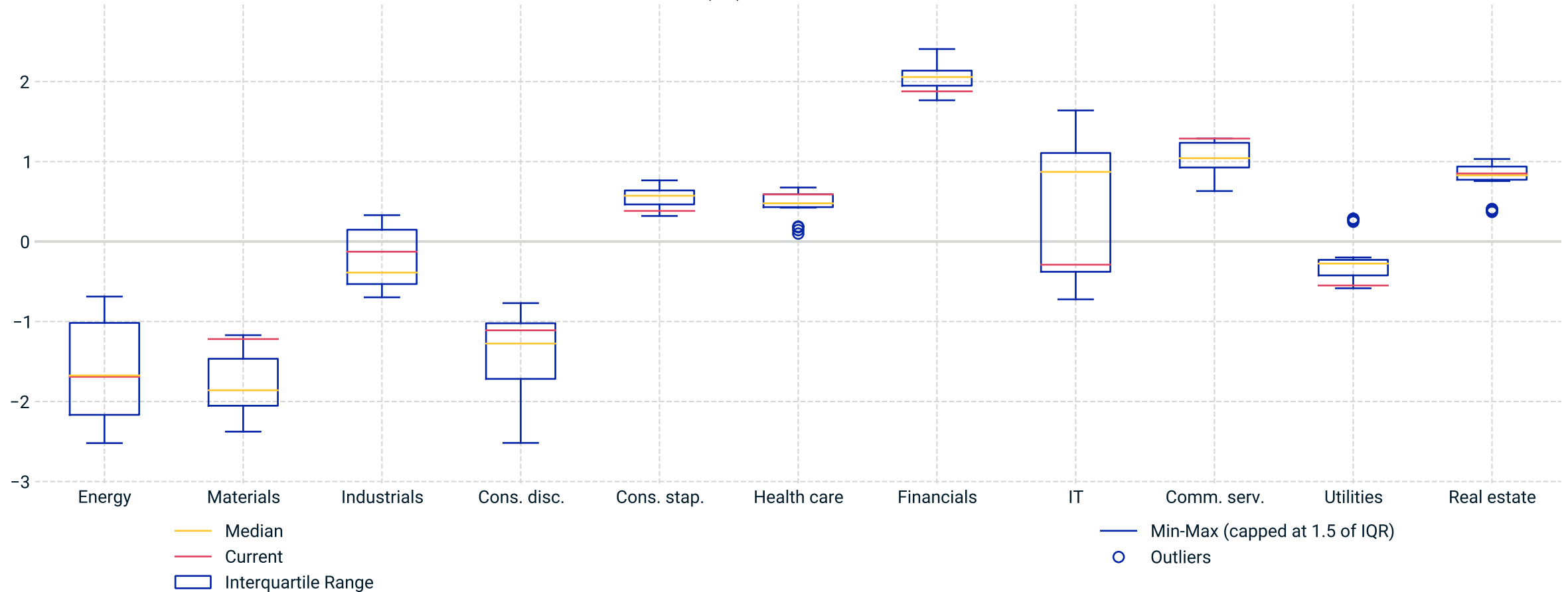
# Active Sector Exposures

## MSCI EM Low Carbon Leaders Index - Current (%)



# Active Sector Exposures

## MSCI EM Low Carbon Leaders Index - Simulated (%)



# Active Sector Exposures

## MSCI EM Low Carbon Leaders Index - Current (%)

	Min	Max	Average	Current
<b>Energy</b>	-0.9	-0.1	-0.6	-0.6
<b>Materials</b>	-0.5	0.4	0.1	-0.3
<b>Industrials</b>	-0.3	0.9	0.3	0.9
<b>Cons. Disc.</b>	-0.9	0.2	-0.4	0.2
<b>Cons. Stap.</b>	0.1	0.6	0.4	0.1
<b>Health Care</b>	-0.2	0.7	0.1	0.1
<b>Financials</b>	1.7	2.7	2.2	1.9
<b>IT</b>	-2.8	-1.6	-2.2	-1.8
<b>Comm. Serv.</b>	-0.1	0.8	0.1	-0.1
<b>Utilities</b>	-0.2	0.2	0.1	-0.2
<b>Real Estate</b>	-0.3	0.0	-0.1	-0.2

Period: Dec 31, 2020 to Aug 31, 2022, monthly data.

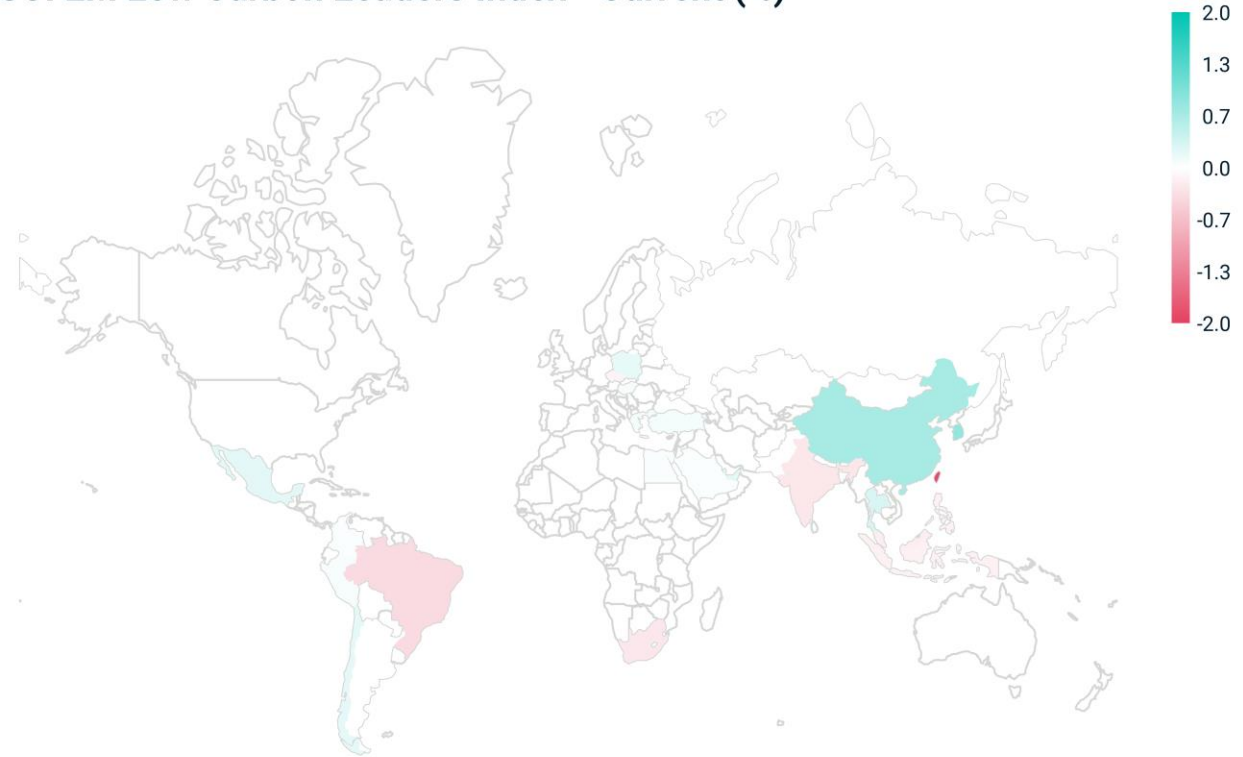
## MSCI EM Low Carbon Leaders Index - Simulated (%)

	Min	Max	Average	Current
<b>Energy</b>	-2.5	-0.7	-1.6	-1.7
<b>Materials</b>	-2.4	-1.2	-1.8	-1.2
<b>Industrials</b>	-0.7	0.3	-0.2	-0.1
<b>Cons. Disc.</b>	-2.5	-0.8	-1.4	-1.1
<b>Cons. Stap.</b>	0.3	0.8	0.6	0.4
<b>Health Care</b>	0.1	0.7	0.5	0.6
<b>Financials</b>	1.8	2.4	2.1	1.9
<b>IT</b>	-0.7	1.6	0.5	-0.3
<b>Comm. Serv.</b>	0.6	1.3	1.0	1.3
<b>Utilities</b>	-0.6	0.3	-0.2	-0.5
<b>Real Estate</b>	0.4	1.0	0.8	0.9

Period: Dec 31, 2020 to Aug 31, 2022, monthly data.

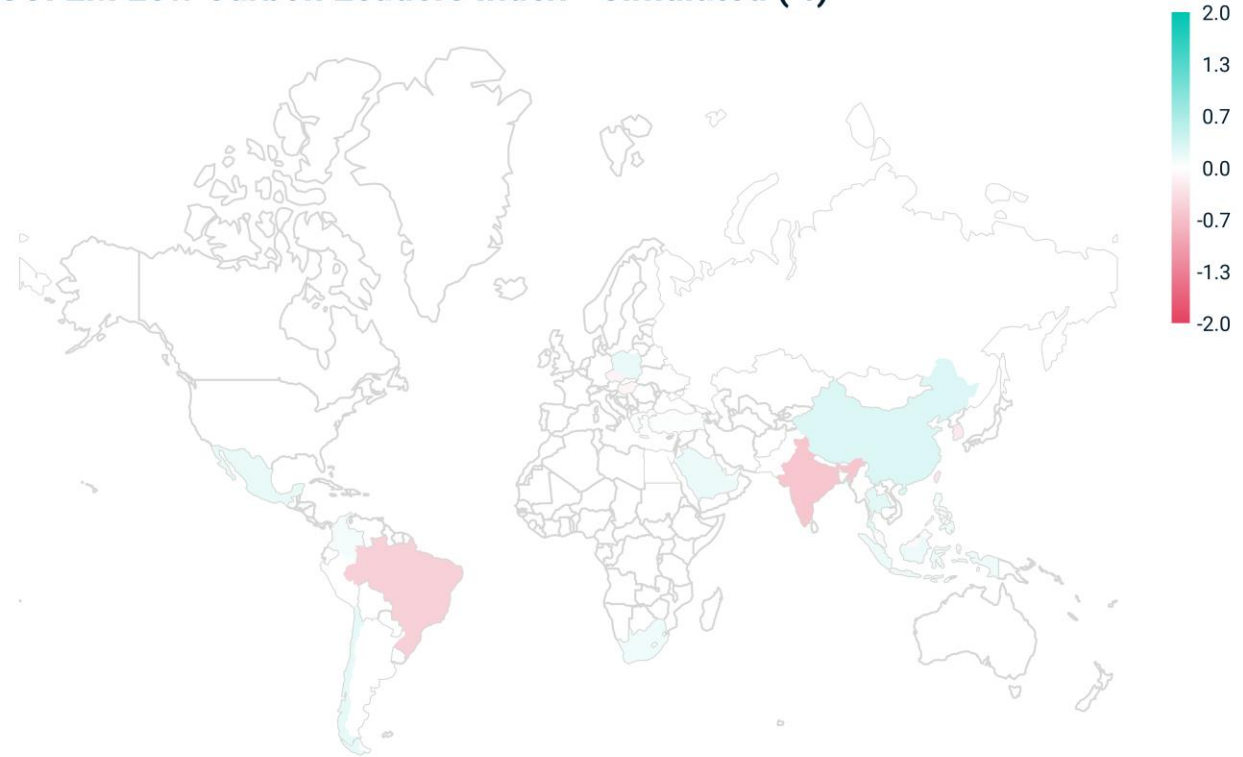
# Active Country Exposures Geo Map

MSCI EM Low Carbon Leaders Index - Current (%)



# Active Country Exposures Geo Map

MSCI EM Low Carbon Leaders Index - Simulated (%)



# ESG Metrics

## Integration, Values and Norms

	MSCI EM (Emerging Markets) Index	MSCI EM Low Carbon Leaders Index - Current	MSCI EM Low Carbon Leaders Index - Simulated
<b>Integration</b>			
ESG Score	5.3	5.0	5.4
ESG Leaders (AAA-AA) (%)	19.1	14.1	20.0
ESG Laggards (B-CCC) (%)	15.6	18.0	14.1
ESG Trend Positive (%)	29.2	30.2	29.9
ESG Trend Negative (%)	9.2	10.6	9.5
Index ESG Rating	BBB	BBB	A
Environmental Pillar Score	5.1	5.1	5.2
Social Pillar Score	5.0	4.9	5.1
Governance Pillar Score	4.3	4.2	4.4
<b>Key Governance Metrics</b>			
Board Independence (wtd Avg %)	61.1	60.1	60.8
Female Directors (wtd Avg %)	14.9	15.0	14.9
Deviation from One Share One Vote (%)	42.7	42.9	42.1
<b>Values and Norms</b>			
Tobacco Involvement (%)	0.4	0.3	0.6
Civilian Firearms Producers (%)	0.0	0.0	0.0
Ties to Controversial Weapons (%)	0.4	0.6	0.0
Global Compact Compliance Violation (%)	0.9	1.0	0.0
Red Flag Controversies (%)	0.9	1.0	0.0
Orange Flag Controversies (%)	12.2	12.2	9.2

As of August 31, 2022.

# ESG Metrics

## Climate Change

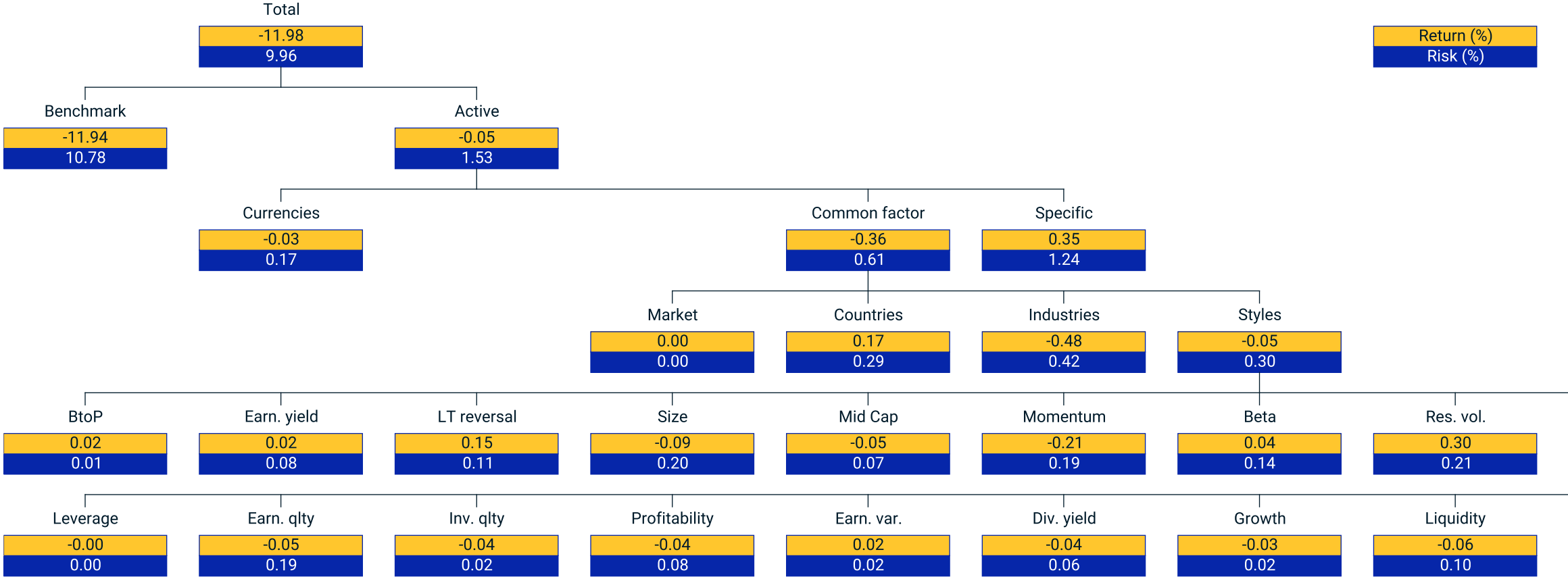
	MSCI EM (Emerging Markets) Index	MSCI EM Low Carbon Leaders Index - Current	MSCI EM Low Carbon Leaders Index - Simulated
<b>Climate Footprint</b>			
Carbon Intensity – Scope 1 + 2 + 3 (Wtd Avg t CO2e/\$M EVIC)	628	470	190
Carbon Intensity – Scope 1 + 2 (Wtd Avg t CO2e/\$M EVIC)	127	54	39
Carbon Emissions to Sales – Scope 1 + 2 + 3 (Wtd Avg t CO2e/\$M Sales)	1550	1095	821
Carbon Emissions to Sales – Scope 1 + 2 (Wtd Avg t CO2e/\$M Sales)	368	186	164
<b>Low Carbon Transition Risks</b>			
Low Carbon Transition Score	5.9	6.1	6.2
Solutions (%)	4.1	4.9	4.2
Product & Operational Transition (%)	20.3	17.5	15.2
Asset Stranding (%)	1.6	0.4	0.0
<b>Exposure to Asset Stranding Risks</b>			
Potential Carbon Emissions (t CO2e/\$M Invested)	4850	776	379
Fossil Fuel Reserves (%)	6.6	5.0	3.2
Thermal Coal Mining (%)	2.7	1.9	0.5
Thermal Coal-Based Power Generation (%)	2.7	1.6	1.7
Unconventional Oil & Gas Extraction (%)	2.2	2.4	2.1
<b>Exposure to Clean Technology Solutions</b>			
Clean Technologies Solutions (> 20% Revenue)	5.4	6.0	5.4
Clean Technologies Solutions Revenue (wtd Avg %)	4.7	4.7	4.6
Green/fossil Fuel-Based Net Revenue Exposure	2.6	5.5	6.6
<b>Other Climate Metrics</b>			
Exposure to Carbon-Related Assets (%)	7.3	6.8	5.3
Climate-Related Controversies (% Score ≤ 4)	0.0	0.0	0.0
Low Carbon Transition Management Score (% Top Quartile)	27.5	30.4	27.7

As of August 31, 2022.

# GEMLT Active Perf. Attribution

MSCI EM Low Carbon Leaders Index - Current vs MSCI EM (Emerging Markets) Index

Annualized gross returns in USD



Period: Dec 31, 2020 to Aug 31, 2022.

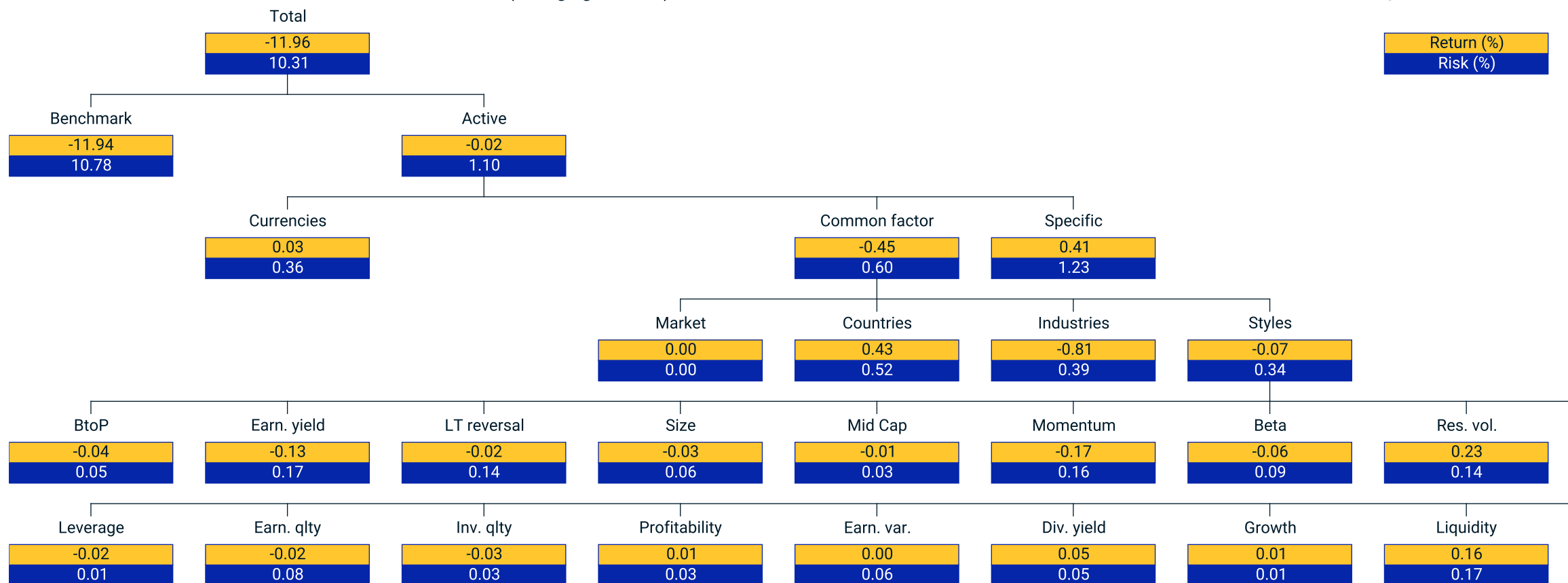




# GEMLT Active Perf. Attribution

MSCI EM Low Carbon Leaders Index - Simulated vs MSCI EM (Emerging Markets) Index

Annualized gross returns in USD

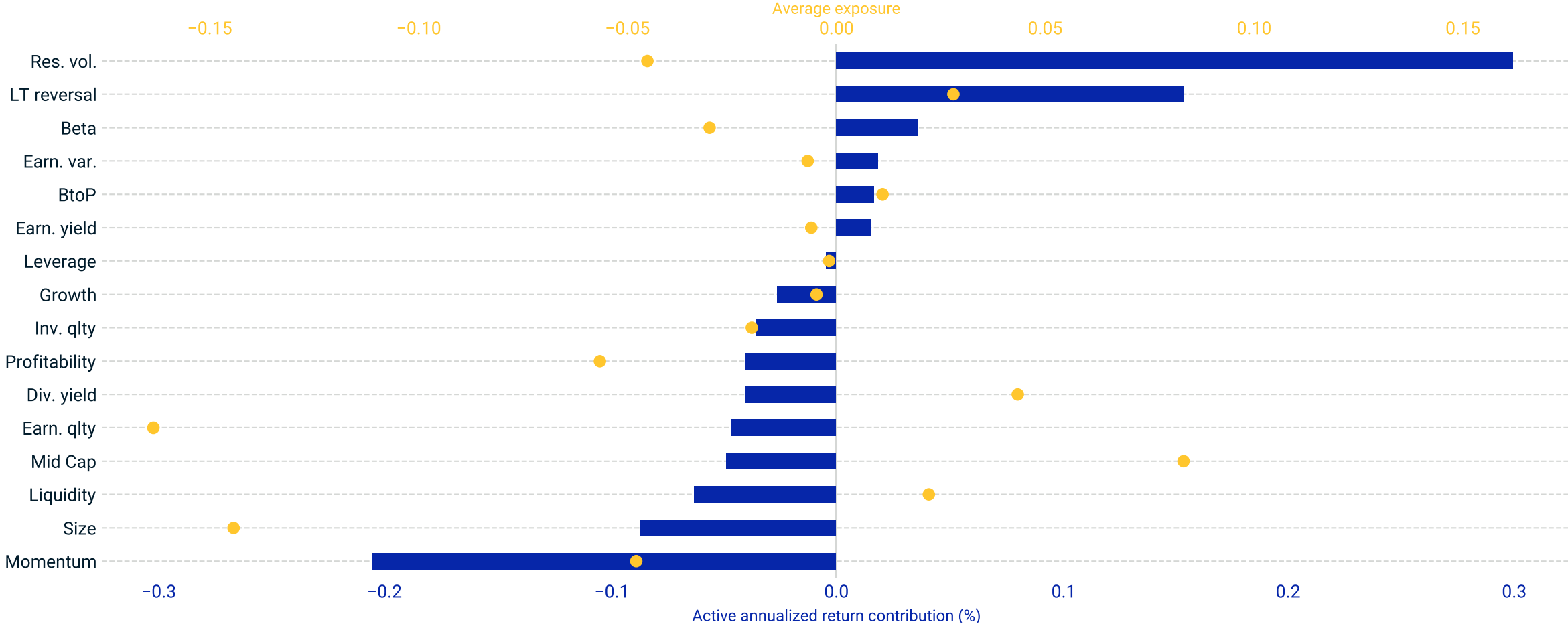


Period: Dec 31, 2020 to Aug 31, 2022.



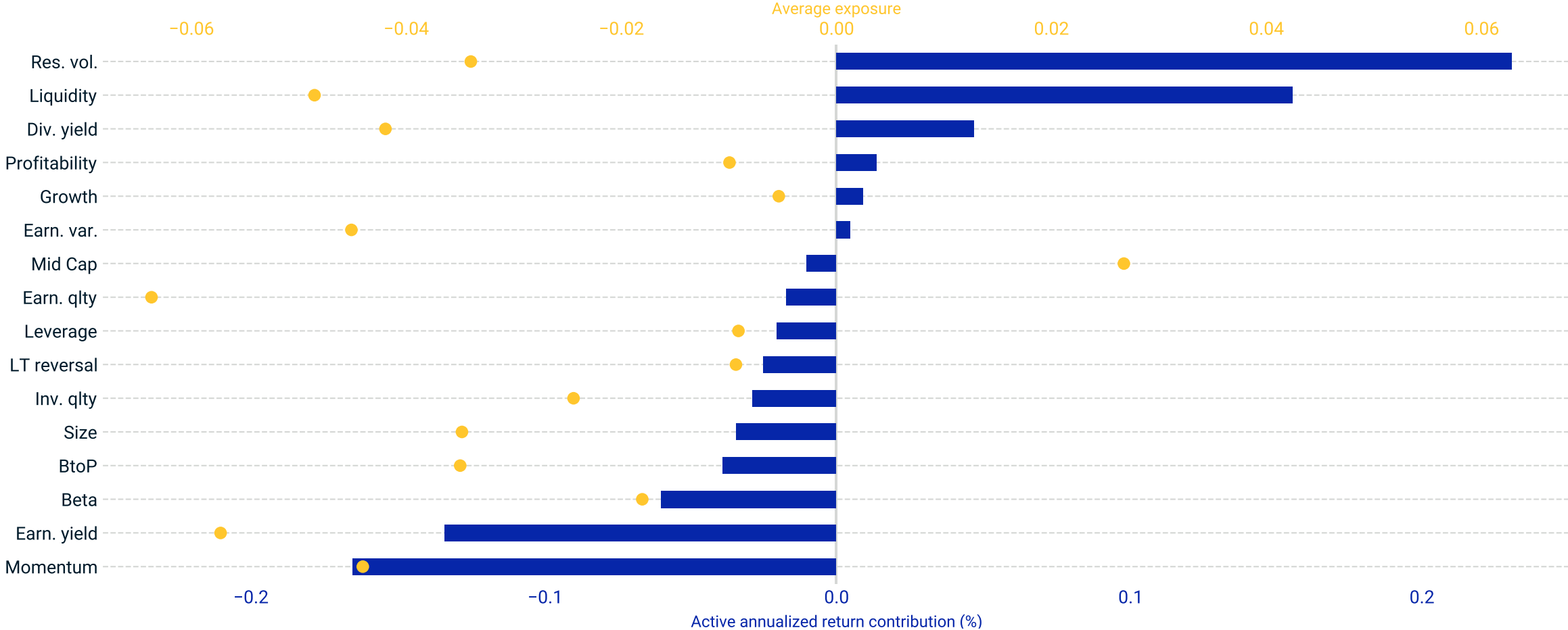
# GEMLT Active Perf. Attribution: Styles

## MSCI EM Low Carbon Leaders Index - Current



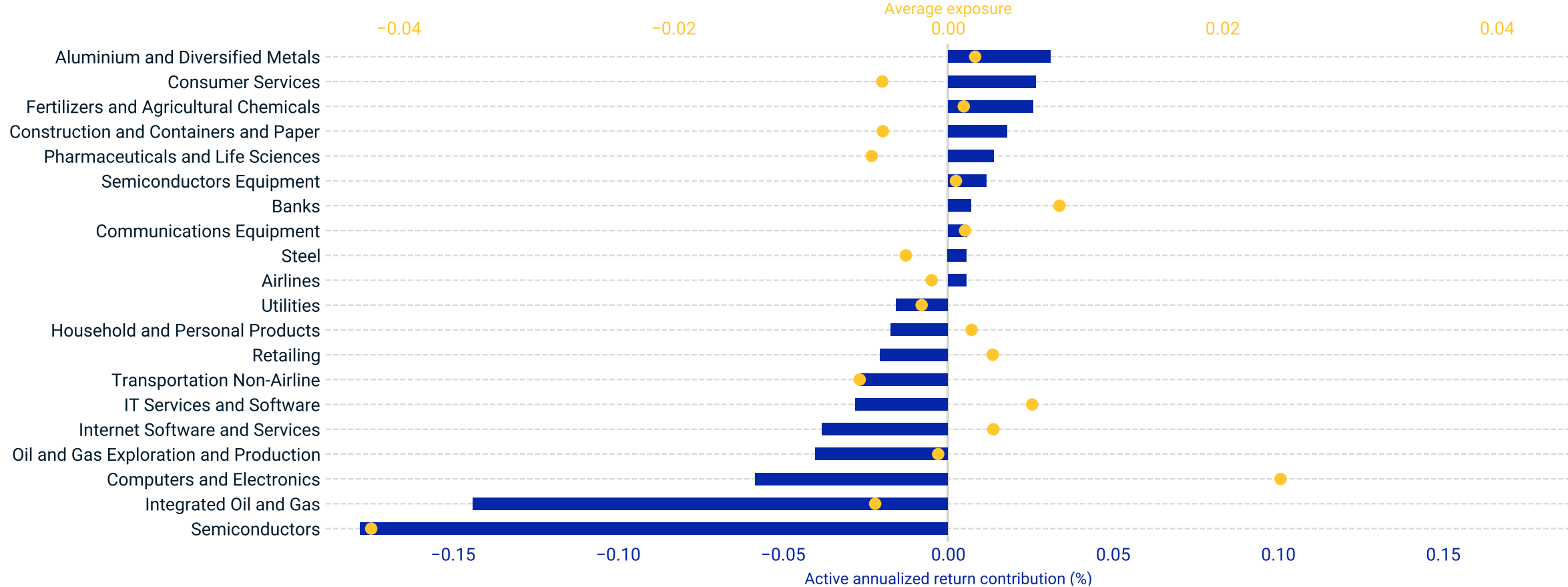
# GEMLT Active Perf. Attribution: Styles

## MSCI EM Low Carbon Leaders Index - Simulated



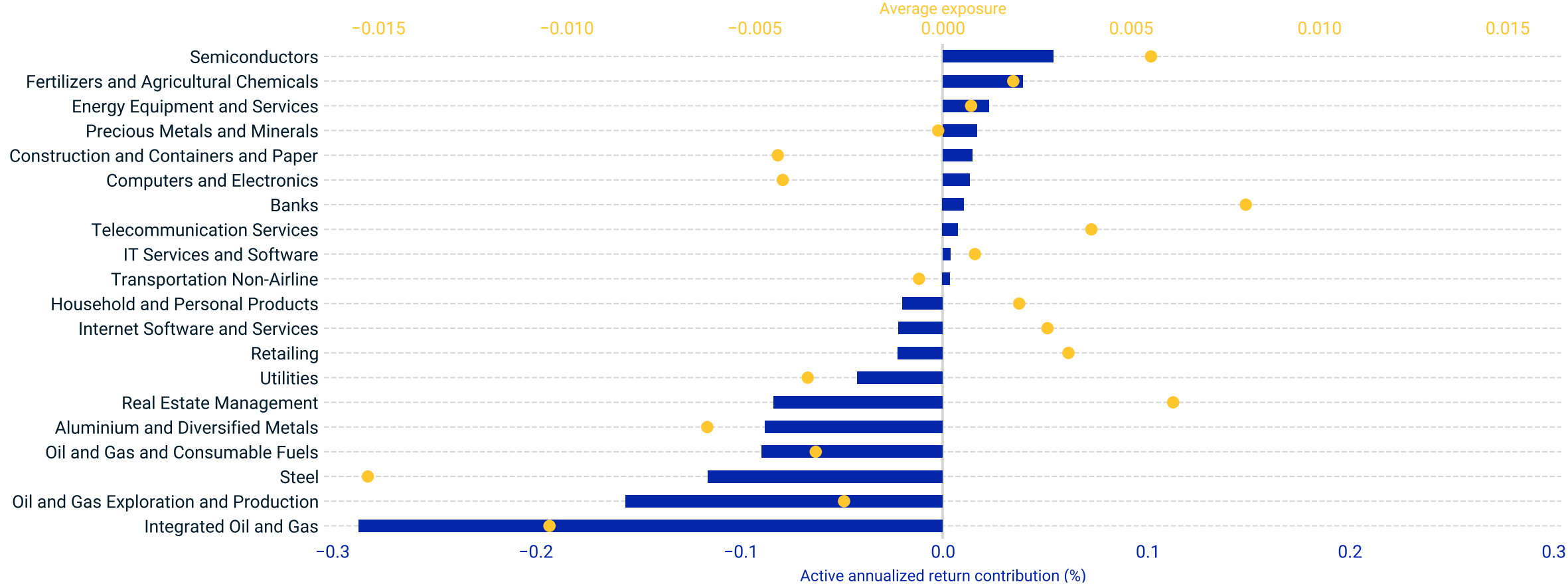
# GEMLT Active Perf. Attribution: Industries

## MSCI EM Low Carbon Leaders Index - Current Top / Bottom 10



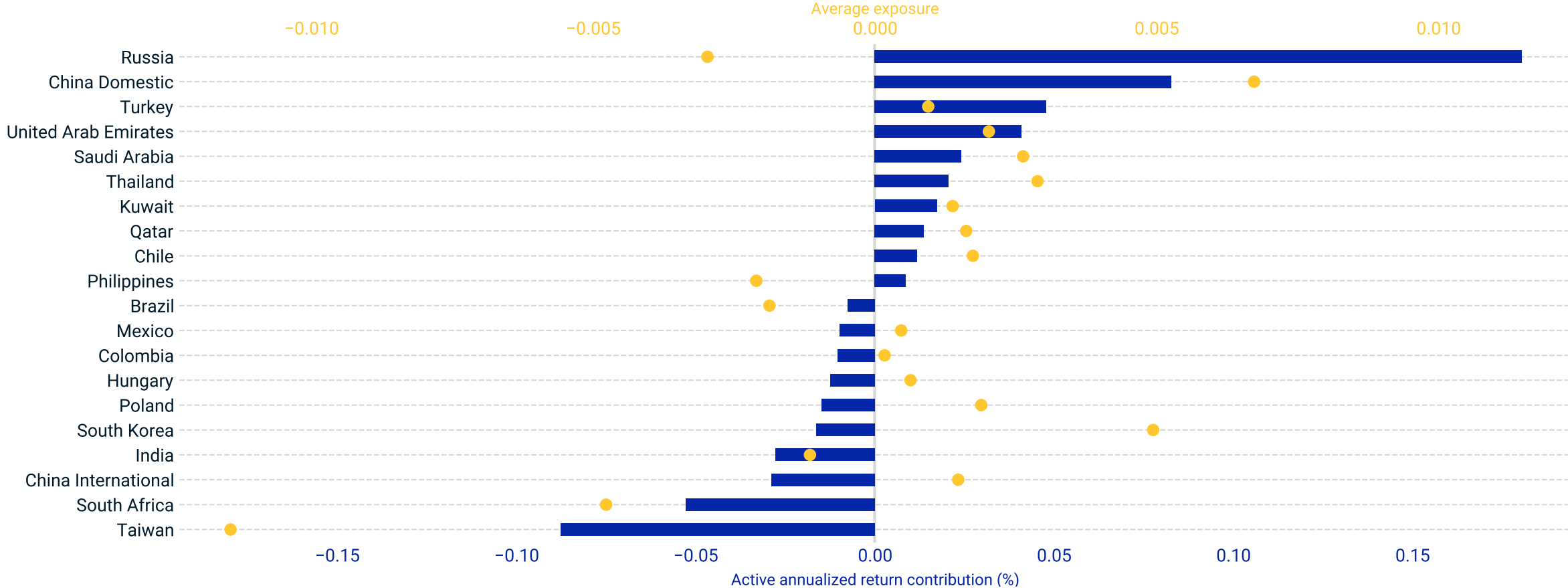
# GEMLT Active Perf. Attribution: Industries

## MSCI EM Low Carbon Leaders Index - Simulated Top / Bottom 10



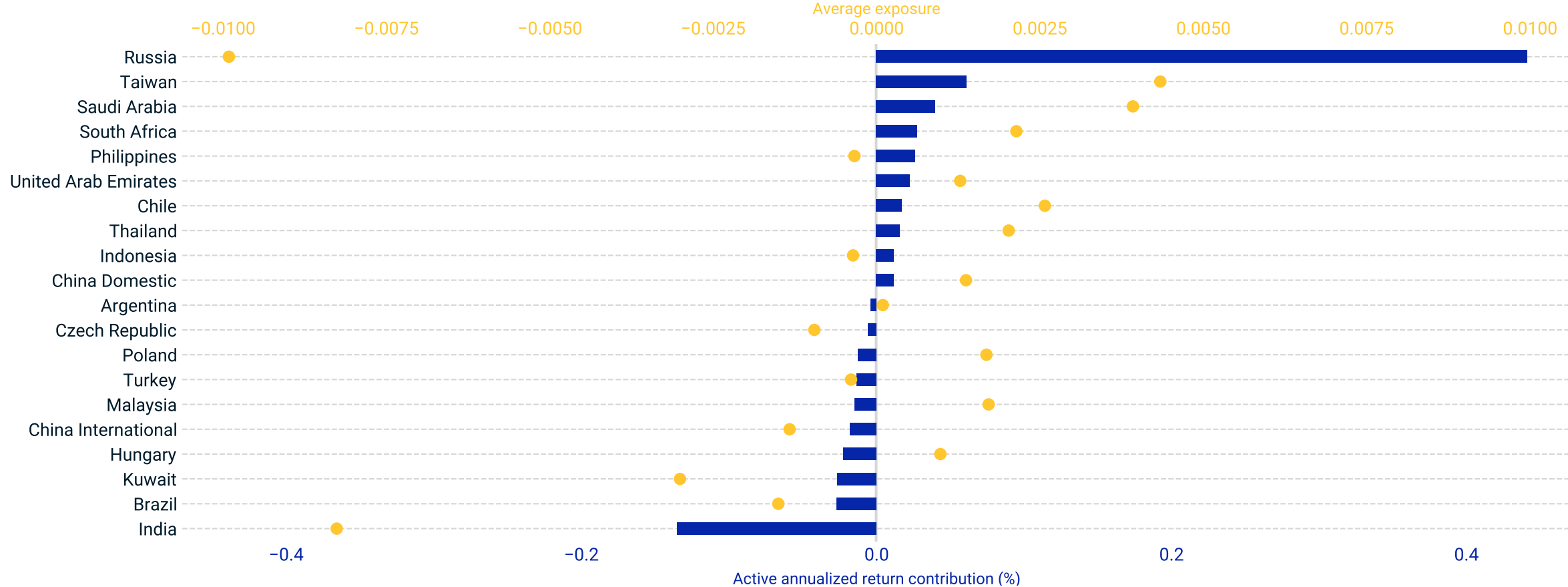
# GEMLT Active Perf. Attribution: Countries

## MSCI EM Low Carbon Leaders Index - Current Top / Bottom 10



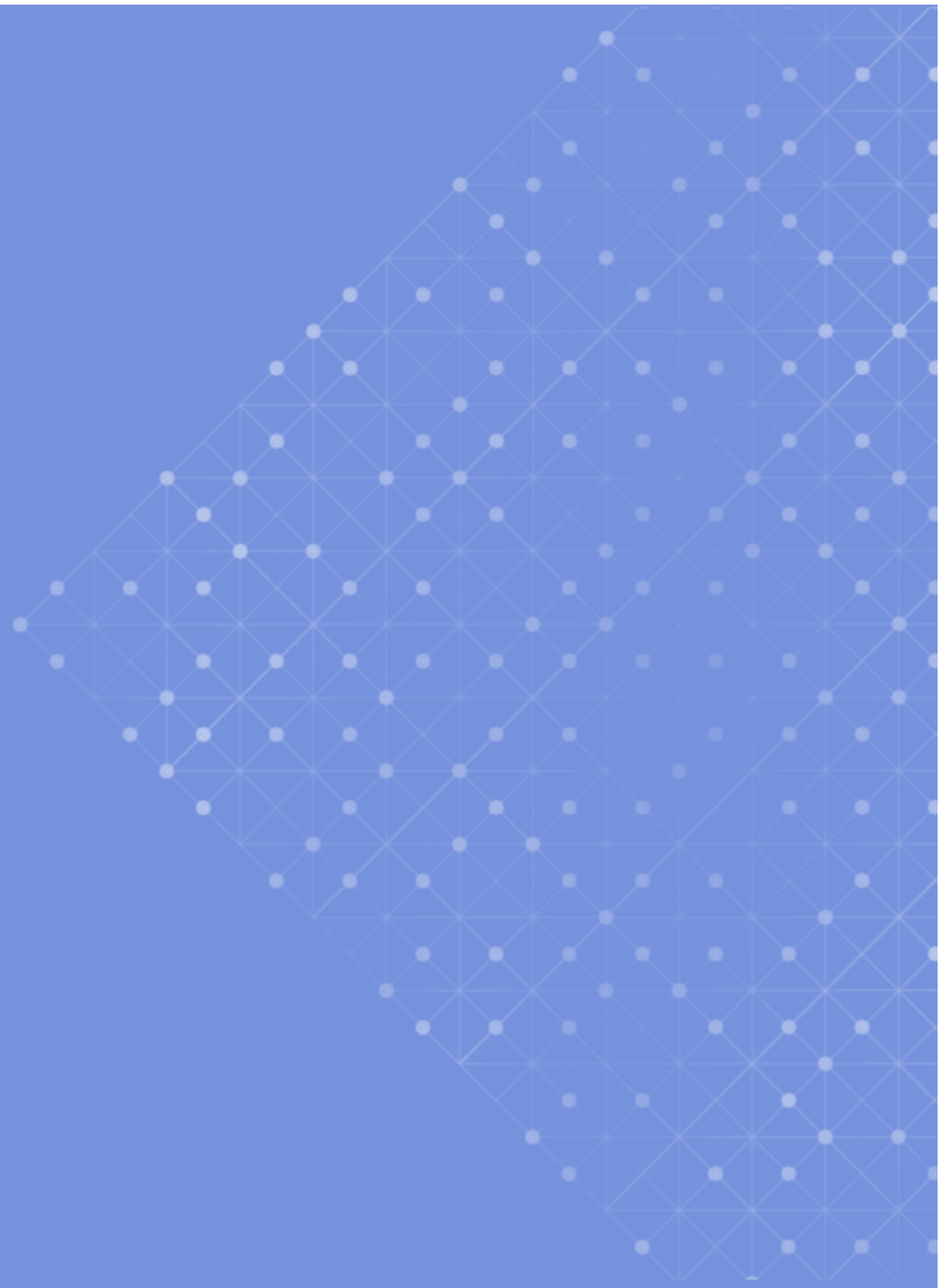
# GEMLT Active Perf. Attribution: Countries

## MSCI EM Low Carbon Leaders Index - Simulated Top / Bottom 10



# Appendix

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# Appendix

## Risk and Return Metrics

	Definition
<b>Total Return (%)</b>	Annualized index return
<b>Total Risk (%)</b>	Annualized index risk (based on monthly returns)
<b>Return / Risk</b>	Ratio of annualized return and annualized risk
<b>Sharpe Ratio</b>	The Sharpe ratio is computed as the ratio of index excess returns and annualized total risk where excess return is defined as the difference between the annualized total index return and the risk free rate corresponding to the currency of analysis
<b>Active Return (%)</b>	Difference of the annualized index return and the annualized benchmark return
<b>Tracking Error (%)</b>	Annualized standard deviation of active returns (based on monthly data)
<b>Information Ratio</b>	Ratio of index active return and tracking error (based on monthly data)
<b>Historical Beta</b>	Beta is a measure of the level of co-movement between an index and its benchmark. It is calculated as the correlation between index and benchmark returns multiplied by the ratio of total risk of the index and its benchmark (based on monthly data)
<b>Average Number of Constituents</b>	Average number of constituents (based on monthly data)
<b>Turnover (%)</b>	Annualized Average one-way index turnover over rebalancing dates
<b>Price to Book</b>	Price to book harmonic average (based on monthly data)
<b>Price to Earnings</b>	Price to earnings harmonic average (based on monthly data)
<b>Dividend Yield (%)</b>	Dividend yield (%) average (based on monthly data)
<b>Downside Deviation (%)</b>	Annualized lower semi-deviation of index total returns (based on monthly data)
<b>Sortino Ratio</b>	Ratio of the Average excess return (above a specified Acceptable Return, MAR, assumed to be 0%) and downside deviation
<b>VaR @ 95% (%)</b>	5th percentile of historical index returns (based on monthly data)
<b>VaR @ 99% (%)</b>	1st percentile of historical index returns (based on monthly data)
<b>Expected Shortfall (CVaR) @ 95% (%)</b>	Average of returns below Var @ 95% (based on monthly data)
<b>Expected Shortfall (CVaR) @ 99% (%)</b>	Average of returns below Var @ 99% (based on monthly data)
<b>Maximum Drawdown (%)</b>	Maximum index drawdown (based on daily data)
<b>Maximum Drawdown Period (months)</b>	Maximum index drawdown period (based on daily data)

	Definition
<b>Skewness</b>	Skewness of index returns (based on monthly data), measures the degree of asymmetry of the return distribution.
<b>Kurtosis</b>	Kurtosis of index returns (based on monthly data), measures the degree of peakedness of the return distribution.
<b>Maximum Active Returns Drawdown (%)</b>	Maximum active return drawdown (based on daily data)
<b>Maximum Active Returns Drawdown Period (months)</b>	Maximum active return drawdown period (based on daily data)
<b>Active Risk Contribution (%)</b>	Asset active weight multiplied by its marginal contribution to active risk and divided by the total index active risk
<b>Cross-Sectional Volatility Contributions (%)</b>	Contributions to cross-sectional volatility (based on monthly data, 12-month moving average)
<b>Thematic Exposure (%)</b>	Weighted average of exposures to thematic relevance scores. Thematic relevance scores are expressed as a percentage to gauge a company's economic linkage to a given theme.
<b>Up/down Markets - Average Monthly Return (%)</b>	Average return for the index when benchmark return is positive/negative (based on monthly data)
<b>Up/down Markets - Average Monthly Active Return (%)</b>	Average active return for the index when benchmark return is positive/negative (based on monthly data)
<b>Up/down Markets - Beta</b>	Historical beta computed for the index and benchmark returns when benchmark return is positive/negative (based on monthly data)
<b>Up/down Markets - Correlation</b>	Correlation between the index and benchmark returns when benchmark return is positive/negative (based on monthly data)
<b>Up/down Markets - Capture Ratio (%)</b>	Ratio of average index and benchmark returns when benchmark return is positive/negative (based on monthly data)
<b>Up/down Markets - Beta Timing</b>	Ratio of up and down market betas (based on monthly data)

# Appendix

## ESG: Integration, Values and Norms

	Definition
<b>ESG Score</b>	Weighted average ESG Score. The ESG Score indicates how well the index companies manage their most material ESG risks relative to sector peers. Scores range from 10 (best) to 0 (worst).
<b>ESG Leaders (AAA-AA) (%)</b>	Exposure to companies with an ESG rating of AAA or AA (best in class relative to peers).
<b>ESG Laggards (B-CCC) (%)</b>	Exposure to companies with an ESG rating of B or CCC (worst in class relative to peers).
<b>ESG Trend Positive (%)</b>	Exposure to companies with a rating upgrade in the year prior to the most recent ESG rating.
<b>ESG Trend Negative (%)</b>	Exposure to companies with a rating downgrade in the year prior to the most recent ESG rating.
<b>Index ESG Rating</b>	The letter rating equivalent of the calculation below: $ESG\ Score * (1 + ESG\ Trend\ Positive - ESG\ Trend\ Negative - ESG\ Laggards)$
<b>Environmental Pillar Score</b>	The Environmental Pillar Score indicates how well the index companies manage their most material environment risks. Scores range from 10 (best) to 0 (worst).
<b>Social Pillar Score</b>	The Social Pillar Score indicates how well the index companies manage their most material social risks. Scores range from 10 (best) to 0 (worst).
<b>Governance Pillar Score</b>	The Governance Pillar Score indicates how well the index companies manage their most material governance risks. Scores range from 10 (best) to 0 (worst).
<b>Board Independence (wtd Avg %)</b>	Weighted average % of independent board members
<b>Female Directors (wtd Avg %)</b>	Weighted average % of female board members.

	Definition
<b>Deviation from One Share One Vote (%)</b>	Exposure to companies flagged for any of multiple equity classes with differential voting rights, golden shares or limitations on voting rights.
<b>Tobacco Involvement (%)</b>	Exposure to companies flagged for involvement in tobacco. Specifically, tobacco producers and companies that derive 5% or more aggregate revenue from the manufacture, distribution, retailing, licensing, and supply of tobacco products, as defined by the methodology of the MSCI Global ex Tobacco Involvement Indexes.
<b>Civilian Firearms Producers (%)</b>	Exposure to civilian firearms producers.
<b>Ties to Controversial Weapons (%)</b>	Exposure to companies with ties to controversial weapons. MSCI ESG Research's Controversial Weapons definition covers cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons, as defined by the methodology of the MSCI Global Ex-Controversial Weapons Indexes.
<b>Global Compact Compliance Violation (%)</b>	Exposure to companies in violation of the UN Global Compact principles.
<b>Red Flag Controversies (%)</b>	Exposure to companies with environment-, governance-, customer-, human rights-, or labor rights-related controversies that are assessed as "Very Severe".
<b>Orange Flag Controversies (%)</b>	Exposure to companies with ongoing environment-, governance-, customer-, human rights-, or labor rights-related controversies that are assessed as "Severe" and indicate structural problems at the company.

# Appendix

## ESG: Climate Change

	Definition
<b>Carbon Intensity (Wtd Avg t CO2e/\$M EVIC)</b>	Carbon emissions normalized by Enterprise Value Including Cash (EVIC) for the index.
<b>Carbon Emissions to Sales (Wtd Avg t CO2e/\$M Sales)</b>	Efficiency of the index in terms of carbon emissions divided by total sales.
<b>Low Carbon Transition Score</b>	Weighted average low Carbon Transition (LCT) score measuring companies' level of alignment to the LCT. Companies with higher LCT score are more aligned with the LCT compared to the companies with lower scores. Scores range from 0 to 10.
<b>Solutions (%)</b>	Exposure to companies involved in low/zero carbon solutions that would have negative total carbon intensity and are likely to benefit in a low carbon scenario.
<b>Product &amp; Operational Transition (%)</b>	Exposure to companies with moderately to highly carbon intensive products or operations. Such companies' products or operations could go under transition in a low carbon scenario.
<b>Asset Stranding (%)</b>	Exposure to companies with very high risk exposure to transition risk and may face asset stranding risk in the short to medium term.
<b>Potential Carbon Emissions (t CO2e/\$M Invested)</b>	Carbon potential emissions normalized for the index.
<b>Fossil Fuel Reserves (%)</b>	Exposure to companies that own proved & probable coal and/or oil and natural gas reserves used for energy purposes. The definition is based on the MSCI Global Ex-Fossil Fuel Indexes Methodology.
<b>Thermal Coal Mining (%)</b>	Exposure to companies that derive some of their revenue from thermal coal mining.
<b>Thermal Coal-Based Power Generation (%)</b>	Exposure to companies that derive some of their revenue from thermal coal-based power generation.
<b>Unconventional Oil &amp; Gas Extraction (%)</b>	Exposure to companies that derive revenues from unconventional oil and gas including oil sands, oil shale, shale gas, shale oil, coal seam gas, and coal bed methane. It excludes all types of conventional oil and gas production.

	Definition
<b>Clean Technologies Solutions (&gt; 20% Revenue)</b>	Exposure to companies that derive 20% or more revenue from any of the five clean tech themes: alternative energy, energy efficiency, green building, pollution prevention, or sustainable water.
<b>Clean Technologies Solutions Revenue (wtd Avg %)</b>	Weighted average % revenue derived from any of the five clean tech themes including alternative energy, energy efficiency, green building, pollution prevention, or sustainable water.
<b>Green/fossil Fuel-Based Net Revenue Exposure</b>	The ratio of the weighted average clean technologies solutions revenue (%) or "Green Revenue" to the weighted average fossil fuel revenue (%) defined as the weighted average % revenue derived from any of the fossil fuel-related activities including thermal coal mining, oil and gas extraction, thermal coal-based power generation, and oil and gas-based power generation.
<b>Exposure to Carbon-Related Assets (%)</b>	Exposure to companies that belong to the following GICS industries: Energy Equipment & Services (101010), Oil, Gas & Consumable Fuels (101020), Electric Utilities (551010), Gas Utilities (551020), Multi-Utilities (551030).
<b>Climate-Related Controversies (% , Score ≤ 4)</b>	Exposure to companies with climate change and energy-related controversies that are flagged as Red, Orange and Yellow, covering scores 0 to 4. Factors affecting this evaluation include a history of involvement in GHG-related legal cases, widespread or egregious impacts due to corporate GHG emissions, resistance to improved practices, and criticism by NGOs and/or other third-party observers.
<b>Low Carbon Transition Management Score (% Top Quartile)</b>	Exposure to companies that belong to the top quartile in terms of their Low Carbon Transition Management Score relative to companies in the relevant GICS Sub-Industry that are constituents of the MSCI ACWI IMI.

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