DISCUSSION PAPER

FROM MSCI ESG RESEARCH LLC

INSTITUTIONAL INVESTING FOR THE SDGS

A Joint Discussion Paper from MSCI and the OECD

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EXECUTIVE SUMMARY

The 17 UN Sustainable Development Goals (SDGs) define the goal posts for delivering global sustainable development. While governments have developed the goals and signed up to their implementation, government action alone will not be enough to achieve them. MSCI and the OECD are working together with the following two goals:

1. Create a framework for discussion around investment options and the potential role of institutional investors in achieving the SDGs
2. Develop a proof-of-concept illustration of a hypothetical investable index for institutional investors in public equity markets that targets SDG needs

This paper, which we have written jointly, is intended to spark discussion among market participants and stakeholders. It follows an invitation-only advisory group workshop on November 6, 2018.

The OECD brings to this collaboration a deep understanding of development economics and public policy, while MSCI brings decades of experience working with institutional investors and developing investment tools designed to serve a variety of objectives.

INTRODUCTION FROM THE OECD: THE SDGS AND THE URGENT NEED FOR SUSTAINABLE DEVELOPMENT INVESTMENT CAPITAL

The SDGs aim to foster collaboration within and between international private and public stakeholders to address critical global challenges such as poverty and climate change. Underpinning the SDGs are 17 Goals, which were agreed to by 193 countries in 2015 with a target date for delivery of 2030. While the address diverse areas such as economic inequality, innovation, sustainable consumption, and peace and justice, they are all interconnected.

The OECD is committed to helping deliver the goals, particularly ensuring poverty eradication (SDG #1) through the agenda of "leave no one behind". While the needs identified by the SDGs are global, the largest gaps are in developing countries.

There is an estimated funding gap of ***USD 2.5 trillion per year*** *to achieve the SDGs on schedule by 2030*

Based on current development and private spending levels the SDGs will not be attainable by 2030. The yearly funding gap is estimated at about USD 2.5 trillion.[1] Official Development Assistance stood at USD 147 Billion in 2017.[2] The development community has sought greater engagement with institutional investors to mobilize additional capital. Approaches include a range of mechanisms from policy frameworks for investment to blended finance.[3]

Mobilizing sufficient capital means increasing awareness of the SDGs and their importance among institutional investors to incentivize strategic allocations of capital. Donor governments have sought to identify both policy and financial approaches, but to date these have been slow in delivery and too small to have the necessary impact. Capital markets in many developing countries are not yet prepared to accommodate the well-regulated, deep and liquid pools of capital necessary for financing the SDGs. On the other hand, OECD countries' capital markets and institutional investors are well established and liquid. Their resources could provide the scale and sophistication necessary for achieving the SDGs. Meanwhile, we agree with the UN PRI assertion that it is in the interest of institutional investors to invest in sustainable themes as their long-term diversified portfolios rely on the overall good health of the economy and that SDGs will drive sustainable macroeconomic growth.[4]

We have come together with MSCI in hopes of developing an investment tool that can help bridge the gap between funding needs and institutional investors' requirements.

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[1] UNCTAD (2014), *World Investment Report*, United Nations.

[2] OECD (2018), *OECD Data, Net ODA*, https://data.oecd.org/oda/net-oda.htm.

[3] OECD (2018), *Making Blended Finance Work for the Sustainable Development Goals*.

[4] UN-PRI (2017), *The SDG Investment Case*, https://www.unpri.org/download?ac=1436.

INTRODUCTION FROM MSCI: GROWING INSTITUTIONAL INVESTOR INTEREST IN THE SDGS

An overarching SDG investment challenge we hear from investors is in finding the right balance between compelling contributions and investability

MSCI ESG Research has observed marked growth over the past few years in institutional investors' interest in finding ways to deploy capital to help solve global problems while not sacrificing investment returns. Many of these investors are also doing some form of ESG integration in their investment processes, with an eye toward minimizing risk and maximizing financial returns by considering all financially relevant factors. While investing for positive impact is a different objective, the two are not incompatible.

While this movement had made the most headway among European asset owners, we have also observed growing interest in the Americas and Asia. Impact objectives were most commonly expressed in terms of contributing to the SDGs, and were typically motivated by a combination of intrinsic beliefs and external pressures.

In a market consultation focused on SDGs and public equities in 2017, many of the investors MSCI consulted spoke of investing for SDG impact as a responsibility to the world or "the right thing to do". Some expressed this in terms of an investment thesis, citing beliefs that solving these problems would be good for the global economy and hence have investment benefits over the long term and/or that the needs outlined by the SDGs represent substantial business and investment opportunities.[5] We also heard that investors were facing external pressure in the form of requests from beneficiaries and clients, activist campaigns, and the need to stay competitive in an evolving market.

During the consultation, investors cited numerous challenges to investing for the SDGs in public equities, the most overarching of which was to find the right balance between compelling SDG contributions and required investment characteristics. Others included the need for good quality, consistent data, and confusion over terminology and meanings, worries about the potential for "impact washing" (i.e. dubiously painting investments as having positive impact when in fact it may be very small or nonexistent), the need to be able to tell compelling stories about investment choices, the lack of widely adopted standards, and the need for believable outcome measurements.

Given these constraints, although funds allocated to impact investing have grown substantially in recent years,[6] we have not yet seen a large scale shift in asset allocations by OECD asset managers towards the SDGs. However, **we believe it is possible to develop a**

[5] See, for example: https://www.pggm.nl/english/what-we-do/Pages/BiO_Convictions.aspx

[6] The Global Impact Investing Network reported that impact investing assets under management at respondents to its annual survey were up by more than 50% from 2016 to 2017. However, total volume was still measured in hundreds of billions, well short of total SDG needs.

potential index that would credibly facilitate larger scale investments toward the SDGs while simultaneously meeting institutional investors' investment requirements. Through our collaboration with the OECD and this discussion paper, we hope to facilitate a conversation that could lead to a general consensus about how to approach this challenge.

TOWARD A SOLUTION: A POSSIBLE INDEX SOLUTION

FROM THE OECD: ENLISTING CORPORATES AND INSTITUTIONAL INVESTORS

To deliver the SDGs, we believe it is essential to complement direct impact investments with **an approach that incorporates listed equities**. Achieving the SDGs requires an economic transition away from unsustainable products and practices and toward those with a role to play in a more sustainable and equitable world. We believe such a shift can be facilitated by driving more investment capital toward companies that are net contributors to the goals – even if not perfect, the benefits could be substantial – and away from companies whose products and activities are substantially at cross purposes with the goals. **Big corporations can and must be part of the solution**, given their reach, influence, and impact. Equity markets have the influence and ownership effect, which would be critical in delivering the necessary funds as well as influencing the practices of large companies. Large corporates are also often the entities that undertake the most significant foreign direct investments in developing countries and may ultimately be the guiding hand in terms of production and distribution of goods in the market place. At the same time, as noted above, changing the balance of how capital is allocated on a large scale means **supporting the engagement of institutional investors, who control large chunks of the world's investment assets**.[7]

Large scale capital reallocation is not straightforward as institutional investors operate under numerous constraints. The OECD is collaborating with MSCI with the goal of developing workable solutions. **We believe an index could be a helpful tool to facilitate the shift**. The goal is to develop an approach that can contribute to aligning public policy goals with the needs of investors to ultimately help deliver the SDGs. Having such an SDG index could allow asset managers to be more aligned to global development and ensure that corporations that they invest in play a more prominent role in terms of addressing future global challenges. It could also significantly raise the visibility of the SDGs amongst investors, and allow for capital allocation towards an asset class that has the potential to provide robust returns while mitigating long term macroeconomic risk.

Discussion topic

WHY AN INDEX?

A well-designed index could help inform investors' direction of capital to firms contributing to the SDGs and simultaneously maintain investment characteristics required by institutional

[7] According to IPE, in 2017 the top 400 global asset managers had approximately EUR 65.7 trillion in assets under management

investors. It could thus serve institutional investors seeking tools to support their efforts direct investments toward the SDGs. An index would have the potential for wide adoption: it would be rules-based, transparent, and replicable, which could make it applicable for a variety of purposes (e.g. creation of passive investment products, use as a performance benchmark for actively managed funds, use as an engagement tool). The OECD hopes that an index could also help incentivize corporate improvement and raise the visibility of the SDGs among investors, which could lead to additional investments.

While there are substantial challenges to be addressed, we believe it would be possible to create an appealing, credible index that could simultaneously help investors contribute to sustainable development while meeting their financial requirements.

The goal of this paper and the workshop to follow is to identify the biggest challenges and foster discussion among key stakeholders in the investment, business, and NGO communities. If we are successful, the process will ultimately lead to the development of an index that offers:

- Replicability and acceptable investment characteristics: Market level risk-adjusted returns for investors and otherwise acceptable financial characteristics over the long term
- Credibility: Compelling company selection methodology to identify genuine contributors and avoid "impact-washing" plus compelling underlying research that the types of product offerings and activities targeted by the selection criteria support sustainable development
- Measurability: The ability for investors to measure and report how their investments are aligned with the SDGs as compared to the index

Discussion topic

KEY CHALLENGES

Helping institutional investors direct capital in service of the SDGs means finding common ground between investors' needs and constraints and the needs of sustainable development.

INVESTORS' NEEDS

To make allocations of any substantial size – which is what is required to achieve the SDGs – institutional investors typically have requirements around **size** and **liquidity**: in general they need to be able to trade securities in large volumes on the market and they need to be able to buy and sell securities without individually affecting the price of the asset. Many are also that have a duty to their clients and beneficiaries that prevents them from taking undue financial risks or sacrificing returns. While investments in private equity, individual projects, or green or social bonds are an option for some institutional investors, it may be difficult to allocate capital to such options on a large scale.[8] Therefore, if these entities wish to leverage their capital for the SDGs, it may be more practical to find ways of targeting sustainable development through the market, i.e. via investments in publicly traded companies. To manage risk, institutional investors looking to make large allocations typically put a strong emphasis on investment characteristics – e.g. **risk adjusted return** – that meet the organization's criteria for investment eligibility. An index that does not address these considerations may not be widely replicable.

CREDIBILITY

Among the institutional investors we have consulted, there is a strong feeling that any investment allocation toward the SDGs should be credible. That is, the holdings in such a portfolio should convincingly contribute toward the achievement of the goals. If not, they feel the credibility of the investor may be at risk and the investment may not achieve the intended purpose.

To achieve this credibility, we believe a framework for identifying eligible companies should be robust, easy to understand, and transparent. Such a framework should reduce the risk of "impact washing" and could also provide guidance and direction for companies looking to report on their own alignment with the SDGs. At the same time, we believe the framework needs to have sufficient flexibility to account for different manners of contribution to different goals and allow the inclusion of companies in a variety of different lines of business (which should also help address the investment eligibility challenges noted above).

Finally, we believe index maintenance rules – the criteria by which companies may be added or removed – should be as robust and transparent as the eligibility criteria to maintain credibility of the methodology.

MEASURABILITY

There are two key measurability challenges to address. First, investors have expressed a need to be able to measure how much capital they are directing toward the SDGs and how well aligned their holdings are with the SDGs. Second, investors and development advocates alike point to the need to somehow measure what difference is being made by equity investment allocations toward the SDGs. If they cannot be measured, there is little assurance that they are helping.

[8] In *The rise and rise of private markets* (2018), McKinsey & Co. reported that the while total global AUM in private equity was growing, it still totaled only about USD 5 trillion.

Both of these challenges are substantial, but the first is more easily addressed than the second. If company selection index methodology is credible, then measuring portfolio exposure to companies contributing to the SDGs by benchmarking against the index is straightforward. On the other hand, mapping public market investments to specific on-the-ground positive outcomes is difficult at best. However, it is possible to measure change in some factors, such as the carbon intensity of a portfolio or the percentage of companies with a critical mass of women on the board.

FROM THE OECD: THE NEED TO MAKE PROGRESS DESPITE MEASUREMENT CHALLENGES

While measurement in terms of price benefit remains challenging, that the UN PRI reports that investing in some SDGs leads to a social return on investment.[9] That is, socio-economic benefits stemming from the investments are not necessarily captured in the return on investment in financial performance, but in benefits to the overall economy. These benefits are complex in nature and have far-reaching outcome and impact level realizations at the macro level. Therefore, they are difficult to measure and attribute at the firm level. For example, studies have found increase of overall wages with the inclusion of women in the workplace and McKinsey estimates that advancing women's equality can add USD 12 trillion to the global economy. [10] It is thus important to bear in mind that increased SDG investing adds economic benefit by incentivizing good practice in firms

We believe it is important to forge ahead despite the limitations and address measurability as best we can. It is evident that the SDG funding gap persists and will continue to compound year after year. It is thus better to make a difference now; by contributing towards SDG themed investments as there would be realized impacts at the macro level.[11] Thus, ensuring not only sustainable risk adjusted returns, but also contributing towards making a difference in the world we live in.

[9] UN-PRI (2017), *The SDG Investment Case*, https://www.unpri.org/download?ac=1436.

[10] McKinsey (2015), *The Power of Parity*.

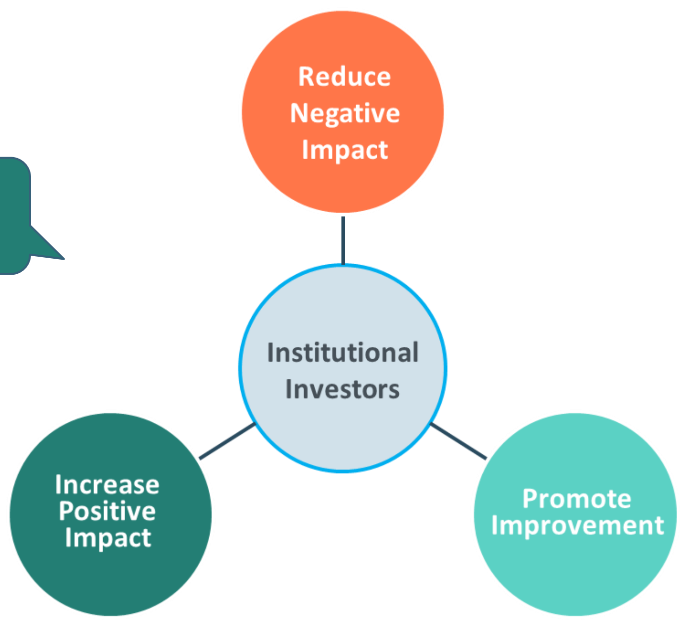
[11] UN-PRI (2017), *The SDG Investment Case*, https://www.unpri.org/download?ac=1436.

A FRAMEWORK FOR INSTITUTIONAL INVESTORS TO ADDRESS THE SDGS

We believe that a holistic framework for institutional investors to address the SDGs should be rooted in the goal of achieving a gradual large scale shift in capital allocation, the understanding that companies may contribute to the goals in a variety of ways, and the view that any approach to institutional investment needs to include an understanding of the financial implications. In developing a framework to meet these needs, we have identified three components that we view as essential:

Exhibit 1: A Framework for Addressing SDG Challenges in Institutional Investors' Portfolios

Discussion topic



1. Reduce Negative Impacts

by ***shifting capital away*** **from business activities, strategy and operational involvement not aligned with achieving the SDGs**

2. Increase Positive Impacts by

shifting capital towards **companies that provide products & services that serve needs defined by the SDGs**

3. Promote Improvement by

shifting capital toward **companies that improve operations, develop long term & forward-looking strategy, and report on progress**

Source: MSCI ESG Research

1. **Reduce Negative Impacts:** Shift capital *away* from business activities not compatible with achieving the SDGs

   Examples:

   - Thermal coal (Goal 7: "Reducing the carbon intensity of energy is a key objective")

- Tobacco (Goal 3: "Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control")
- Labor rights violations (Goal 8: "eradicate forced labour, end modern slavery and human trafficking")
- Weapons (Goal 16: "Significantly reduce all forms of violence")

2. **Increase Positive Impacts:** Shift capital *toward* business models that serve the needs defined by the SDGs and countries most in need

   Examples:

   - SME lending (Goal 8: "expand access to banking, insurance and financial services for all")
   - Contraceptives (Goal 3: "ensure universal access to sexual and reproductive health-care services")
   - Alternative energy (Goal 7: "increase substantially the share of renewable energy in the global energy mix")

3. **Promote Improvement:** Recognize positive intentions and incentivize companies to shift their behavior to improve the impact of their operations, develop long term forward looking strategies, and report their progress

   Examples:

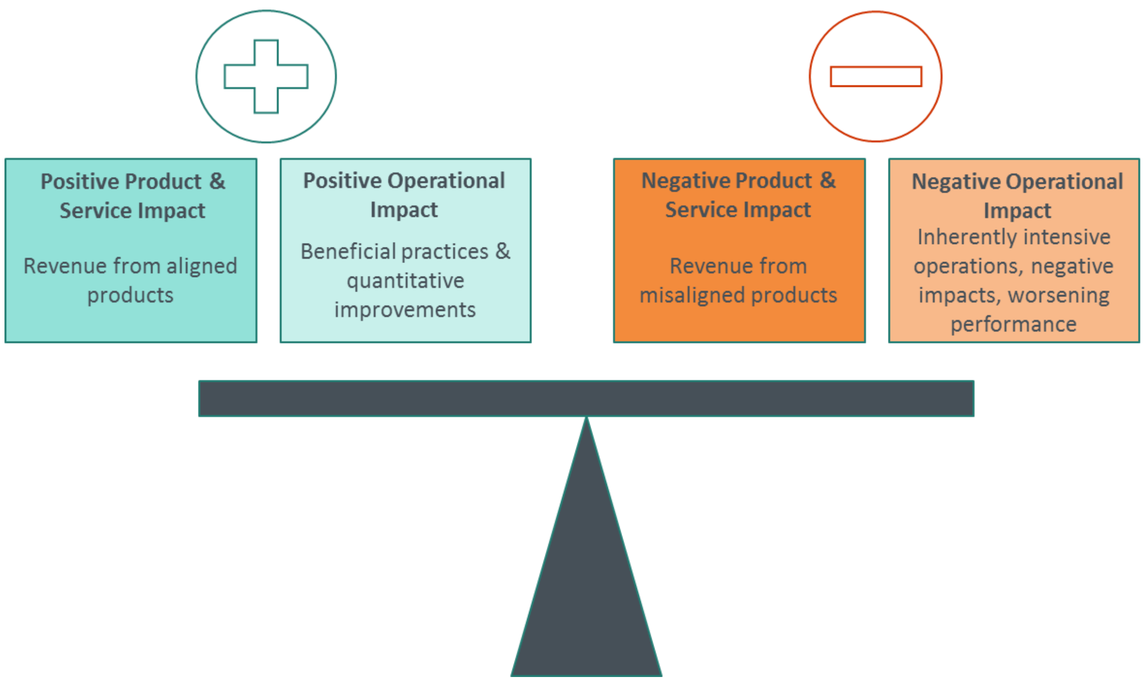
   - Labor practices (Goal 8: "protect labour rights and promote safe and secure working environments for all workers")
   - Waste management (Goal 12 "substantially reduce waste generation through prevention, reduction, recycling and reuse")
   - Anti-corruption initiatives (Goal 16: "Substantially reduce corruption and bribery in all their forms")

This framework emphasizes companies' products and services where they are either beneficial or incompatible with the SDGs. Products and services have the potential for substantially greater reach and hence influence – positive or negative – on the world. However, we also recognize that many companies' product offerings are largely neutral, yet there is still an opportunity for these companies to contribute to the goals through the way they manage their own operations. In fact, for a few of the goals the most obvious ways for companies to make a difference are through the way they run their business rather than what they sell – for example, Decent Work & Economic Growth (SDG 8). For this reason we include the third pillar, which focuses on identifying strong management of operational social and environmental impacts.

APPLYING THE FRAMEWORK TO COMPANIES GOAL BY GOAL

For purposes of discussion, we propose a SDG alignment methodology for companies in which positive and negative factors are weighed against each other, with select negative factors automatically rendering a company ineligible. A company's products and services could be aligned (e.g. solar panels), helping to increase positive impacts, or misaligned (e.g. thermal coal), having negative impacts. Aspects of a company's operational practices could end up on either side of the scale depending on how it conducts itself. (See Exhibit 2) The resulting assessment for each company for each goal could range from Most Misaligned to Most Aligned. (See Exhibit 3 and Appendix 3 for more details.)

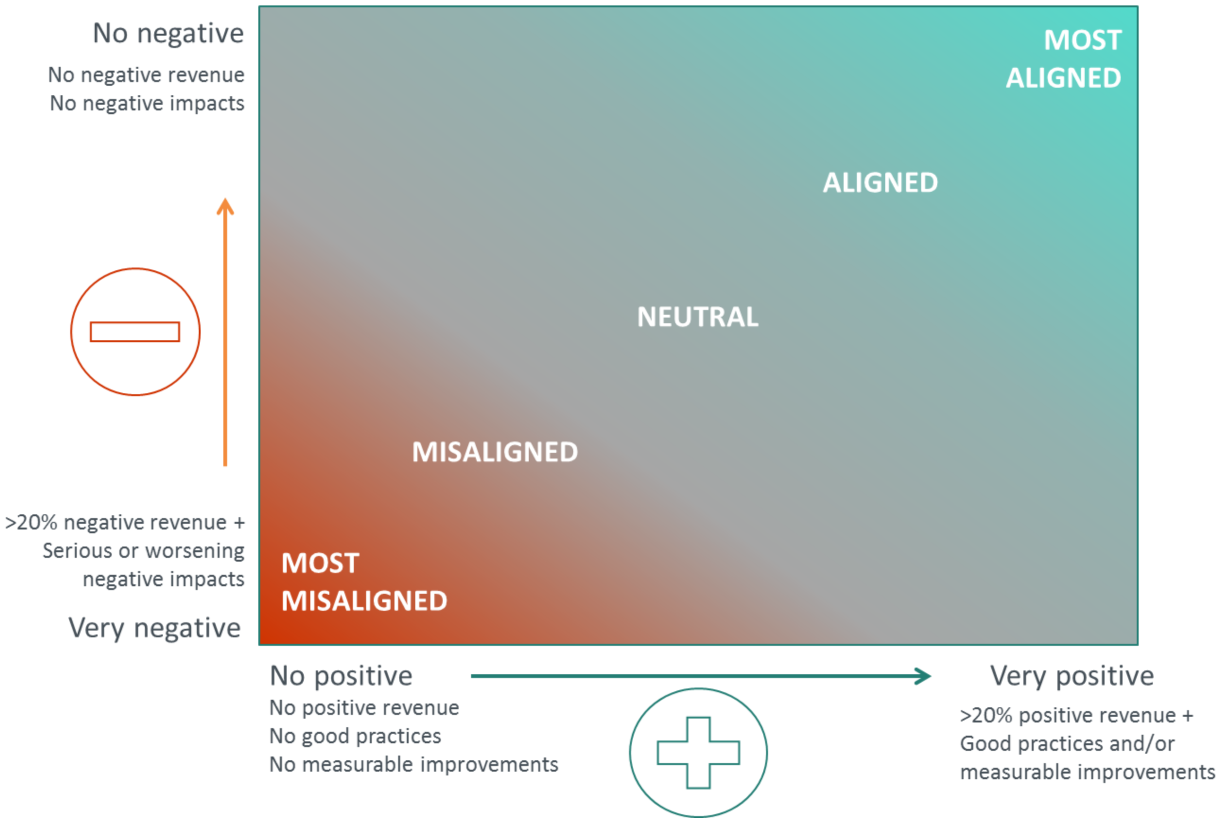
Exhibit 2: A Framework for Measuring A Company's Net SDG Alignment



Source: MSCI ESG Research

Exhibit 3: Weighting Positive and Negative Impacts

Discussion topic



Sources: MSCI ESG Research

Discussion topic

We additionally propose to add a geographic consideration to the alignment assessment, in order to differentiate the level of impact between more developed and less development countries. Companies with higher amounts of revenue from less developed countries would see their alignment assessment amplified; i.e. an aligned company might become most aligned. This would effectively serve to tilt the scale further in either direction depending on the underlying balance of aligned or misaligned factors for each SDG. The rationale behind this multiplier is the hypothesis that positive contributions do more good in less developed countries – where the need is greater – and that negative contributions do more harm.

TESTING THE FRAMEWORK WITH A HYPOTHETICAL INDEX

Given the company assessment framework described above, we could test its viability by constructing a hypothetical index as follows:

We would use a broad, diversified and replicable index as the underlying universe for selection. Using the MSCI ACWI Index, which includes approximately 2700 large and mid cap stocks in developed and emerging markets, would aim to ensure that companies eligible for selection meet size and liquidity requirements and it includes a diverse range of industries and countries.

COMPANY SELECTION

Since it is possible for a company to be well aligned with one or more goals and misaligned with others, we would develop eligibility rules for company selection. There are numerous possible approaches to deciding index eligibility based on alignment with each SDG.

Discussion topic

We could use the following approach for a **selection of stocks with strong SDG credibility**: Companies misaligned with any goals would be excluded. Of the remaining pool, those classified as Most Aligned with at least one SDG would be eligible for inclusion. Using the MSCI ACWI Index as the parent index, a test of this methodology yielded an eligible universe of approximately 250 stocks (roughly 10% of the parent index constituents) as of June 29, 2018. This relatively small universe of eligible stocks could help insure that index constituents were all compelling holdings from a development perspective; however, **there could be a tradeoff involved** as we found in testing that the small number of stocks made for larger tracking error and other differences from the characteristics of the parent index.[12]

Alternative approaches could select a broader set of companies or incorporate more complex logic. In a broader approach, companies could be eligible if Aligned with at least one goal and not Misaligned with any. In a more nuanced approach, companies could be considered eligible if they are Most Aligned with at least one SDG or Aligned with two or more goals. Or they could be eligible if they are Most Aligned with at least one goal and have more aligned goals than misaligned goal. Or they could be eligible if Aligned with at least one goal in an area most relevant to their business model and not Misaligned with any goals in areas most relevant to their business. There are many possibilities.

WEIGHTING

Discussion topic

We tested an equal weighted version of this hypothetical index with the aim of allocating more weight to smaller companies than they would have in a typical market cap weighted index.

Alternative approaches to weighting could include:

[12] We simulated performance of an index with this methodology for the period of November 30, 2009 through June 29, 2019.

- Tilting weights in favor of companies aligned with specific goals that have the largest funding gaps
- Tilting in favor of companies that are aligned with the largest number of goals or that have the best net level of alignment
- Tilting toward certain countries of domicile
- Weighting by market cap

TESTING RESULTS

Discussion topic

We simulated the creation of several variations of this hypothetical index to understand the performance implications of different company selection and index weighting methodology choices. Below are the results for the approach that we believe could best meet the dual criteria of replicability and credibility, denoted below as the "SDG index".[13] Alongside it for comparison, we present actual characteristics of the MSCI ACWI Index and simulated characteristics of a market cap-weighted version of the SDG index (referred to in the exhibits as "SDG mcap index").

To understand the various tradeoffs at play in the inherent tension between the size of the eligible company universe and the level of conviction for the individual constituents, our testing included a number of additional options. One of these was a broader market cap weighted version of the index (not shown here) that included a much larger set of companies and that had no geographic component to the alignment assessments. In simulation, the performance characteristics of this version were much closer to those of the parent index, with a tracking error of about 2%; however, the much larger universe of companies included individual companies whose SDG credibility is less clear cut than in the more constrained universe in which it is easier to establish higher conviction.

[13] Simulated index names are used here for ease of reference only.

Exhibit 4: Key Index Characteristics

The table shows historical values for the MSCI ACWI Index and simulated values for the proposed SDG index (which is equal weighted) alongside simulated values for a market cap weighted version for comparison purposes.

Key Metrics

	MSCI ACWI Index	ACWI SDG Index	ACWI SDG Mcap Index
Total Return* (%)	10.0	9.6	9.1
Total Risk (%)	10.2	11.9	11.0
Return/Risk	0.98	0.80	0.82
Sharpe Ratio	0.93	0.75	0.77
Active Return (%)	0.0	-0.4	-0.9
Tracking Error (%)	0.0	4.6	2.4
Information Ratio	NaN	-0.09	-0.39
Historical Beta	1.00	1.09	1.06
No of Stocks***	2474	277	277
Turnover** (%)	2.0	15.8	1.6
Price To Book***	2.1	1.4	1.8
Price to Earnings***	18.5	16.9	15.6
Dividend Yield*** (%)	2.5	2.5	3.1

Period: 28-Jun-2013 to 29-Jun-2018

* Gross returns annualized in USD

** Annualized one-way index turnover over index reviews

*** Monthly averages

The definitions of all statistical parameters are available in the Appendix

Source: MSCI

Exhibit 5: Comparative Index Performance

The table shows actual values for the MSCI ACWI Index and simulated values for the SDG index (which is equal weighted) alongside simulated values for a market cap weighted version for comparison purposes.

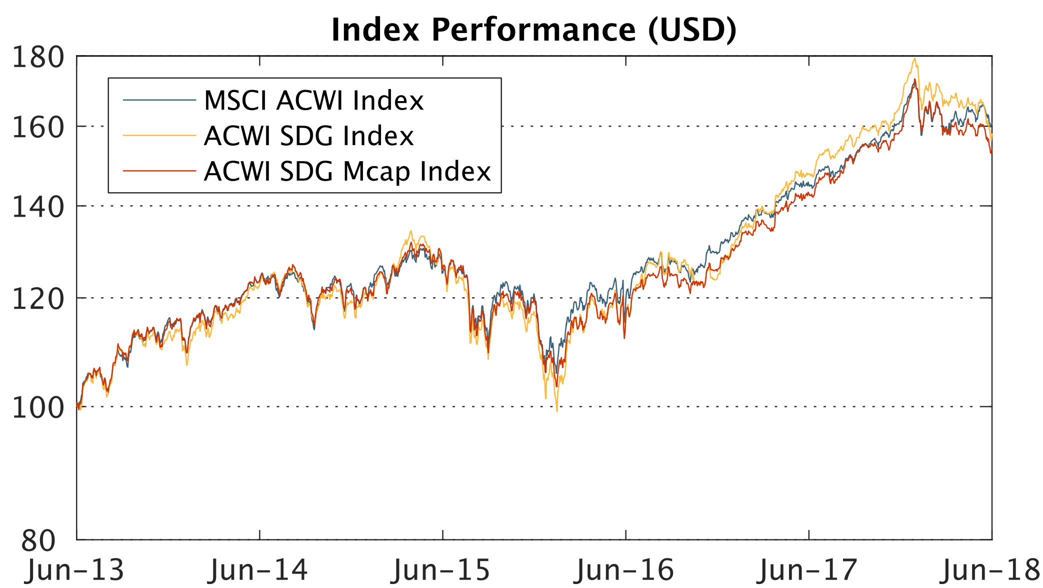
Performance (%)

	MSCI ACWI Index	ACWI SDG Index	ACWI SDG Mcap Index
YTD	-0.1	-4.9	-2.8
1 Yr	11.1	7.0	8.0
3 Yr	8.8	7.9	7.0
5 Yr	10.0	9.6	9.1

Gross returns in USD for the period ending 29-Jun-2018

Returns are annualized for periods longer than one year

Source: MSCI



Source: MSCI

Exhibit 6: Top Holdings by Active Weight

Top Constituents by Active Weight in the ACWI SDG Aligned Index

	Country	Sector	Weight (%)	Active Weight (%)
Piraeus Bank	GREECE	Financials	0.4	0.4
Bank Danamon Indonesia	INDONESIA	Financials	0.4	0.4
Tdk Corp	JAPAN	Information Technology	0.4	0.4
Recordati	ITALY	Health Care	0.4	0.4
Daiichi Sankyo Co	JAPAN	Health Care	0.4	0.3
Andritz	AUSTRIA	Industrials	0.4	0.3
Fuji Electric Co	JAPAN	Industrials	0.4	0.3
Bajaj Finance	INDIA	Financials	0.4	0.3
Bancolombia	COLOMBIA	Financials	0.4	0.3
Travis Perkins	UNITED KINGDOM	Industrials	0.4	0.3

As of 29-Jun-2018

Source: MSCI

Additional details regarding active industry and geographic exposures in the simulated indexes are available in Appendix 4.

CONCLUSION

To achieve the Sustainable Development Goals on the schedule set out by the UN (i.e. by 2030), trillions of dollars in capital needs to be devoted to solving the problems described by the goals. To date, capital flows have fallen far short of requirements. To support investors seeking to direct capital toward the SDGs, we illustrated the creation of a hypothetical SDG alignment index that would have investment characteristics appealing to large institutional investors while simultaneously focusing credibly on companies whose operations and/or product offerings are making a positive difference, especially in developing countries.

We have tested a hypothetical methodology by which to select companies and construct such a potential index while simultaneously noting the challenges associated with such an initiative and identifying variations on the methodology that could help refine the expression of such an index's objectives. We seek feedback from the global investment, NGO, and corporate community on the feasibility, credibility, and appeal of such a possible index solution. Depending on the results of these discussions, this process could lead to a formal index consultation by MSCI at a future date.

DISCUSSION TOPICS

Overall discussion: Do you believe a well-designed index could support investors who want to drive more investment capital toward the SDGs? Would you be likely to invest using such a tool? Would you lend your support to the adoption of such a tool?

Challenges: Do you see any other major challenges not described in this paper? What are they and how might they be addressed?

Framework: Does the described three-prong framework make sense to you? Are these the right elements to consider?

Net alignment: Should positives and negatives of equivalent degree neutralize each other or should one outweigh the other? E.g. If a hypothetical utility derived half its energy from renewable sources and half from coal, should be considered Aligned because of the substantial involvement in renewables? Misaligned because of the coal exposure? Neutral?

Company selection:

The discussed methodology would disqualify any company misaligned with any goal, even if it is well aligned with others. Does this make sense? Alternatives could include net goal alignment (i.e. number of aligned goals minus number of misaligned goals), or a more nuanced approach that weighed alignment or misalignment with some goals more heavily than others. For example: If a company that makes lifesaving drugs (aligned with SDG #3) is involved in a serious corruption scandal (misaligned with SDG #16), should it be eligible or ineligible for the index? Does it depend how focused it is on the lifesaving drugs (vs. other products) or how serious the scandal is?

Should the index focus more on rewarding alignment or on discouraging misalignment?

Should the eligibility rules be different by industry or simple and absolute across all companies?

Weighting**:** Does equal weighting make sense for this discussion?

Simulated Results: Are the simulated results in line with your investment criteria? Does this look like a workable solution?

APPENDIX 1: UN SUSTAINABLE DEVELOPMENT GOALS

APPENDIX 2: INSTITUTIONAL INVESTOR TYPOLOGY

Institutional investors in OECD countries alone held USD 90 trillion in assets in 2014. This figure is expected to rise to 120 trillion by 2019. Currently pension funds only invest 1.1% of their assets towards developmental goals.[14]

Although often grouped together, institutional investors make up a diverse group, with differing mandates and risk-return appetite. Some prominent investors are pension funds, which invest pension payments from policyholders to pay future benefits. Insurance companies invest premiums to support claims in future; commercial banks, which partake in retail banking and in lending to business; investment banks, which advise on transactions and make markets for institutional clients; private equity firms, which invest institutional and private capital into companies; and asset management companies, which invest managed capital into various asset classes (Convergence, 2018).

Table 1: Institutional Investor Typology

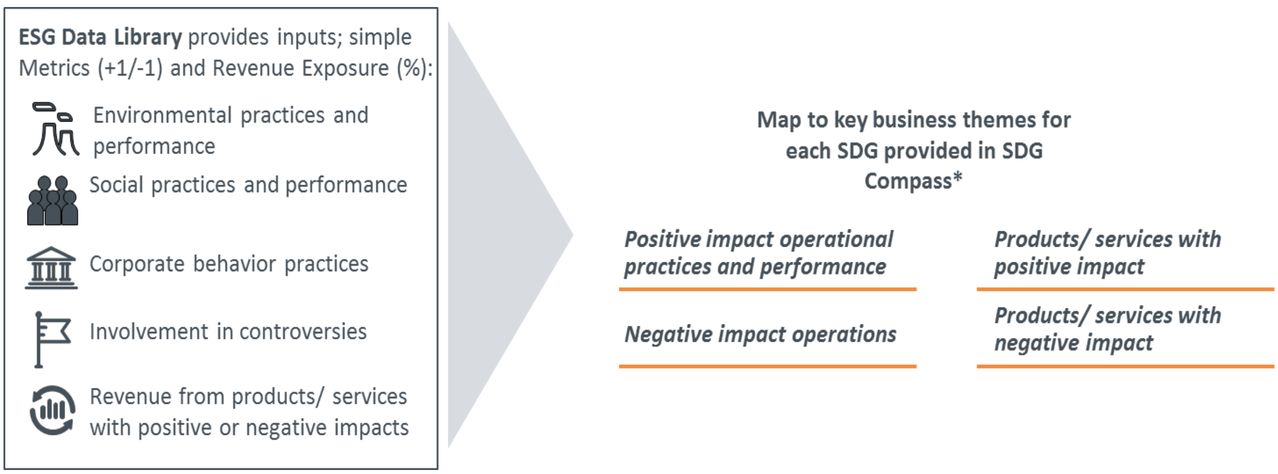
Private Sector Participant	Operations	Mandate	Investment Horizon	Risk Acceptability	SDG Investment Candidate (1-10)
Pension Funds	Invest pension payments to pay future benefits	Preservation	Very Long Term	Low	10
Insurance Companies	Invest premiums to pay future claims	Preservation	Very Long Term	Low	10
Sovereign Wealth Funds	Invest trade surplus of a country	Responsibility and growth	Long Term	Low-Medium	10
Commercial Banks	Retail Banking and Investment	Profits	Medium Term	Low	6
Investment Banks	Advise clients on transactions and partake in trading and market making	Diversified returns	Medium Term	Medium	7
Private Equity Firms	Acquire direct stake in companies	Risky Profit	Short Term	High	3
Asset Management Companies	Invest managed capital into various asset classes	Preservation to risky profit	Varied	Low-High	8

Source: OECD

[14] OECD (2018), *Making Blended Finance Work for the Sustainable Development Goals*.

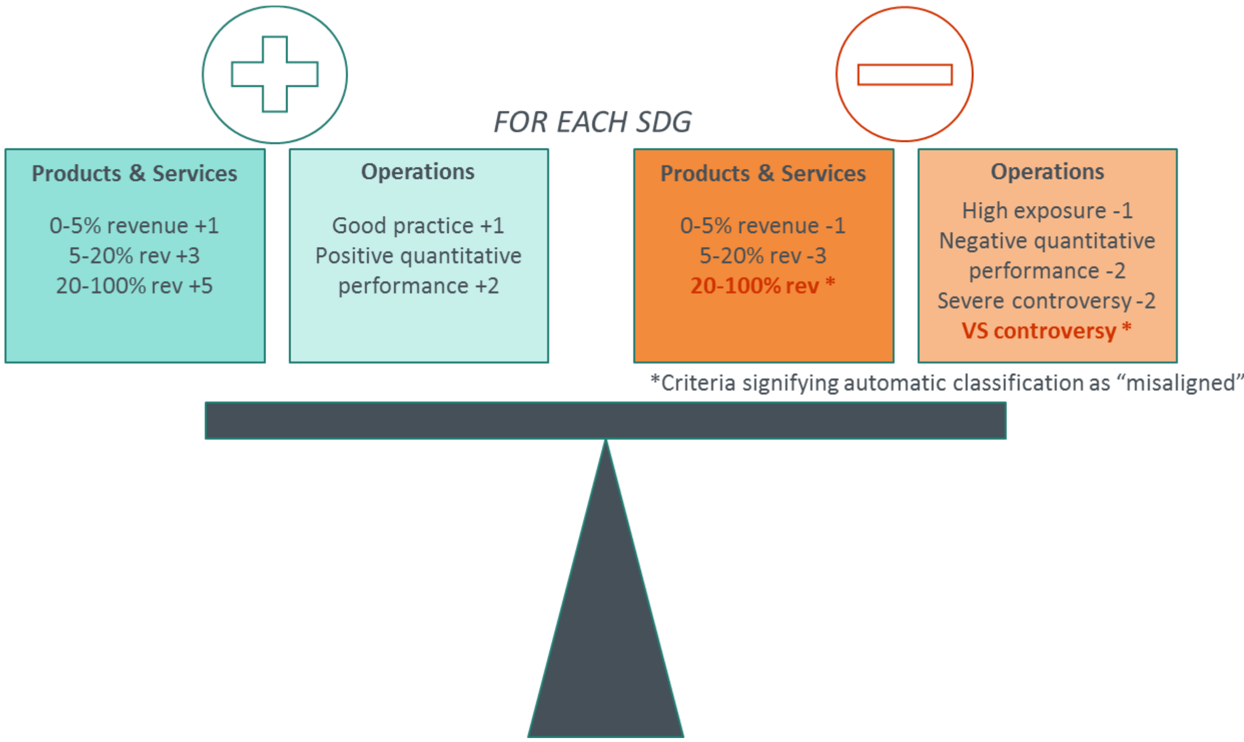
APPENDIX 3: COMPANY-GOAL ALIGNMENT METHODOLOGY SUMMARY

Companies were assessed for alignment with each SDG. The first step in the methodology was to use the SDG Compass (a collaboration between the GRI, the UN Global Compact and the World Business Council for Sustainable Development (WBCSD)) to identify business-relevant metrics to measure alignment with each goal. We leveraged the MSCI ESG Research data library of metrics in this process of mapping metrics to goals. Metrics were selected in the four categories listed below for each goal.



Source: MSCI ESG Research

We then attributed points to the metrics as illustrated below:



Source: MSCI ESG Research

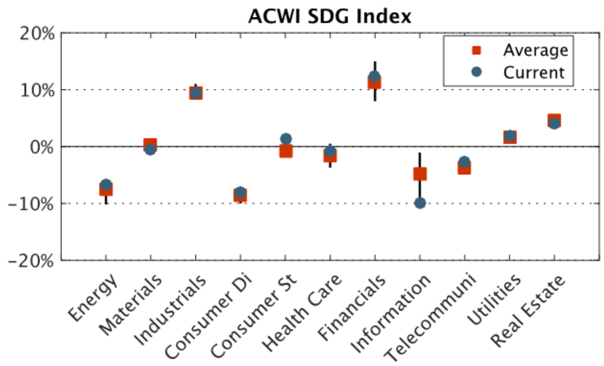
Companies with net point values >1 were classified as Aligned with the goal in question while those with net point values <-1 were classified as Misaligned. Net values of -1, 0, and 1 led to a Neutral classification. Net values >5 were classified as Most Aligned and net values <-5 were classified as Most Misaligned. Companies with 20-100% of revenue derived from misaligned products or services or that were involved in controversies assessed by MSCI ESG Controversies as Very Severe were also automatically classified as Most Misaligned for that goal.

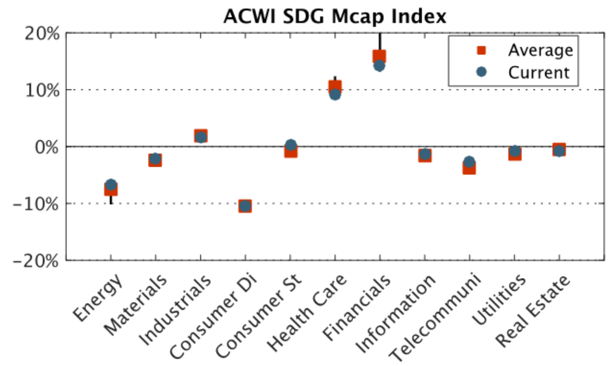
APPENDIX 4: SIMULATED INDEX CHARACTERISTICS

SUMMARY OF POTENTIAL METHODOLOGY

		ACWI SDG Aligned Index[1]
OBJECTIVE		**Select 'Most Aligned' companies that address the UN Sustainable Development Goals by shifting capital away from business activities, strategy and operational involvement not aligned with achieving the SDGs and shifting capital towards products & services that serve needs defined by the SDGs**
METHODOLOGY	*Selection*	Most Aligned[2]
	ESG Screening	• **ESG Controversy Score = 0 ('Red Flags')** • **Controversial Weapons – Zero Tolerance**
	Weighting	• Equal Weighting
	Rebalance Frequency	• Semi-annual (May and November) • Quarterly review of Screening
PARENT INDEX		ACWI

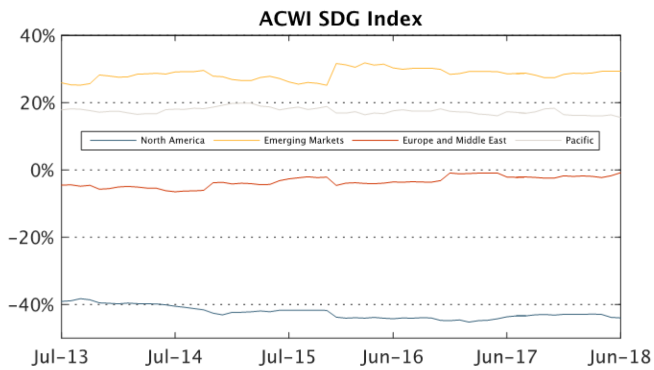
ACTIVE SECTOR EXPOSURES

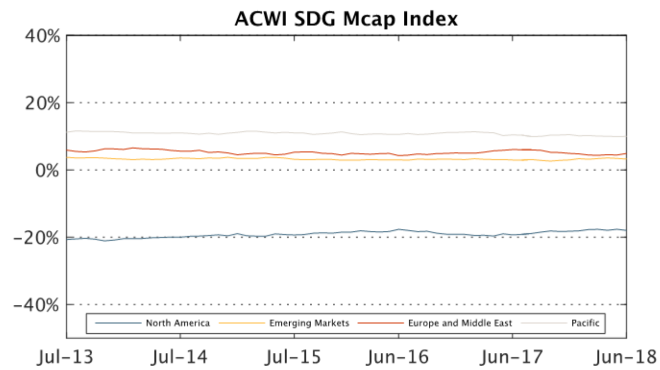




Source: MSCI, Period: 28-Jun-2013 to 29-Jun-2018.

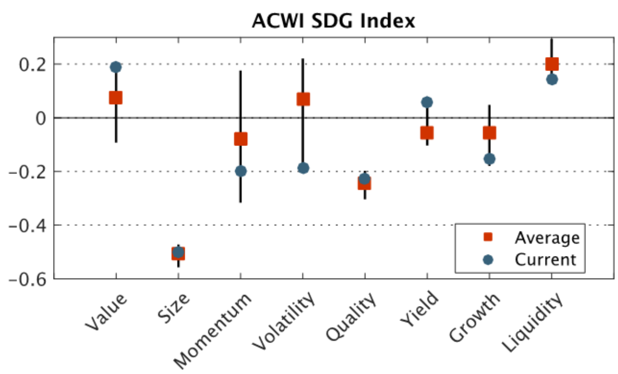
ACTIVE REGION EXPOSURES

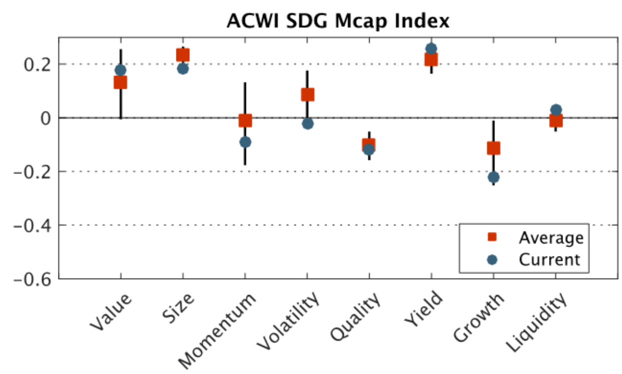




Source: MSCI, Period: 28-Jun-2013 to 29-Jun-2018.

ACTIVE FACTOR FAMILY EXPOSURES





Source: MSCI, Period: 28-Jun-2013 to 29-Jun-2018.

ESG METRICS

ESG Metrics

	MSCI ACWI Index	ACWI SDG Index	ACWI SDG Mcap Index
Integration			
Key Integration Metrics			
ESG Score	5.6	5.9	6.5
ESG Leaders (AAA-AA) (%)	22.9	29.1	37.9
ESG Laggards (B-CCC) (%)	12.5	8.0	3.0
ESG Trend Positive (%)	17.7	15.5	23.1
ESG Trend Negative (%)	6.5	5.4	3.2
ESG Pillars			
Environmental Score	5.4	5.8	6.3
Social Score	4.6	4.9	5.1
Governance Score	5.2	5.0	5.2
Key Governance Metrics			
Lack of Independent Board Majority (%)	16.0	36.9	17.7
Deviation from One Share One Vote (%)	23.3	21.9	16.7
No Female Directors (%)	8.0	22.2	9.0
Values			
Tobacco Producers (%)	1.0	0.0	0.0
Ties to Controversial Weapons (%)	0.8	0.0	0.0
Global Compact Compliance Violation or Watch List (%)	12.7	0.3	0.9
Red Flag Controversies (%)	3.7	0.0	0.0
Orange Flag Controversies (%)	25.1	7.3	23.6

As of 29-Jun-2018

The definitions of all statistical parameters are available in the Appendix

Source: MSCI

CARBON EXPOSURE

Carbon Exposure

	MSCI ACWI Index	ACWI SDG Index	ACWI SDG Mcap Index
Carbon Emissions (t CO2e/$M Invested)	137	116	49
Carbon Intensity (t CO2e/$M Sales)	241	157	96
Wtd Avg Carbon Intensity (t CO2e/$M Sales)	220	118	67
Potential Carbon Emissions (t CO2e/$M Invested)	3108	0	0
Coal Reserves (%)	0.9	0.0	0.0
Fossil Fuel Reserves (%)	6.5	0.0	0.0

As of 29-Jun-2018

The definitions of all statistical parameters are available in the Appendix

Source: MSCI

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