
London Stock Exchange Group response to the Financial Stability Board Task Force on Climate-Related Financial Disclosures – Phase I Report

EXECUTIVE SUMMARY

London Stock Exchange Group (LSEG) welcomes the opportunity to respond to the Financial Stability Board (FSB) Task Force on Climate-Related Financial Disclosures (TCFD) – Phase I Report. We would like to make introductory comments on:

- *Climate change as a key long-term challenge*

We recognize that climate change represents a key global economic challenge and represents a potential risk to global financial stability. This is increasingly recognised by many stakeholders across the investment chain, from corporate issuers, asset managers, banks, investment consultants and ultimately asset owners, such as pension funds. Unlike monetary policy horizons and election cycles, which are shorter in nature, climate change **needs to be addressed over a longer period of time**. There is also some evidence that the global economy is now entering a period of wider industrial change during which industries, including but not limited to those in energy generation, are changing and new industries are emerging, which over time will enable the **transition to a low carbon economy**.

- *Support of the Task Force and its goals*

We support the establishment of this FSB TCFD, an industry-led task force with the remit to make recommendations for issuers of public securities, listed companies, and key financial-sector participants in order to **improve principles and definitions for voluntary financial disclosure of climate-related risk**. It is important that investors have the data and information needed to make informed investment decisions. There is also a need for other actors to understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risk.

- *Role of the London Stock Exchange Group*

LSEG is a keen **partner in international dialogues on disclosure**. With the unique combination of FTSE Russell, London Stock Exchange and Borsa Italiana as businesses within the Group we can play a critical role in facilitating better communication flows and dialogue between issuers and investors. We participate in dialogues not only with regulators, but as a stock exchange, we **fulfil a unique position of a natural link between the issuers and investors**. We constantly promote greater transparency around risk and opportunities related to various financial and non-financial disclosures. On our markets, we list green companies and bonds. FTSE Russell, part of LSEG, is a global leader in indexing and analytic solutions, offering thousands of indexes that measure and benchmark markets around the world, including climate disclosure related (see Annex A). FTSE Russell has worked with a number of large asset owner clients to help them in the development of tailored customised benchmarks that enable climate factors to be integrated into core equity benchmarks.



- *Recognition of the existing regulatory and standard-setting environment*

We urge the TCFD to recognize the existing laws and regulations, which often already require disclosure of climate-related risk. A number of G20 Members are also EU Member States and the EU is currently drafting non-financial reporting guidelines and enriching the Capital Markets Union (CMU) with the ESG (environmental, social and corporate governance) element. Therefore, **in the spirit of international regulatory convergence, TCFD should have an active dialogue with all relevant regulators including the European Commission**, and should aim to align the requirements, wherever possible. There is a risk of increasing regulations on corporate disclosure that are not aligned which will increase costs for companies and issuers and create a confusing array of similar but different metrics that do not help global investors and those wishing to measure and model systemic risks. The TCFD work **should complement the work done by the UN Sustainable Stock Exchange (SSE) and enable increased global harmonisation of disclosure standards**. The SSE initiative is aimed at exploring how exchanges can work together with investors, regulators, and companies to enhance corporate transparency, and ultimately performance, on ESG issues and encourage responsible long-term approaches to investment. Following membership of the UN SSE, LSEG was invited to chair a working group alongside other exchanges, investors and issuers to develop “Model Guidance” on sustainability reporting. The aim of this group was to provide a framework and a basis for exchanges to develop their own guidance on (voluntary) best practice reporting for their issuers. **LSEG is currently in the process of engaging stakeholders and drafting our own guidance which will be finalised by December.**

- *Finding the right balance*

We recognize the importance of **encouraging issuers – and also other similar sized non-listed entities to adopt the same reporting standards, to avoid fragmented reporting** which would skew analysis of climate change and would not be beneficial to the markets and financial stability in general. We consider that the guidance should **strike a balance between encouraging supply of consistent, easily comparable and reliable data, whilst avoiding, in areas where a clear consensus cannot be reached, too many overly prescriptive requirements**. The recommended disclosures should also focus only where the risks associated with a particular investment may be material. Hence a “one-size fits all” approach may often be inappropriate and instead **most disclosure needs to be tailored by particular industrial sectors to ensure materiality**.

I. COVERAGE AND AUDIENCES

<u>Q1. Which types of nonfinancial firms should any disclosure recommendations cover? List in order of importance (1-10)</u>	
Consumer Discretionary (auto, durables, retailing, etc.)	5
Consumer Staples (food, beverage, household etc.)	6
Energy (equipment, services, oil, gas etc.)	1
Health Care (equipment, services, pharma, biotech, etc.)	7
Industrials (capital goods, commercial services, transport)	4



Information Technology (semiconductors, software, hardware, etc.)	8
Materials (chemicals, construction, metals & mining, paper & forest, etc.)	2
Telecommunications (diversified, wireless, etc.)	9
Utilities (electric, gas, renewables, water)	3
Please list any other recommendations	
<p>The initial focus should be on the easier to define and measure metrics – i.e. where a company or issuer has a more direct relationship to associated emissions. For example, retailers may have very significant GHG emissions associated with their supply chain, but the challenges around effective measurement of these are considerable.</p>	

<u>Q2. Which types of financial firms should any disclosure recommendations cover? Check all that apply.</u>	
Banks (diversified thrifts, mortgage, etc.)	X
Diversified Financials (asset management, investment banking/broker-dealer, consumer)	X
Insurance (brokers, multi-line, property, reinsurance, etc.)	X
Real Estate (REITS, management and development)	X
Credit Rating Agencies	X
Investment Consultants	X
Pension Funds/Schemes	X
<p>Other Climate risks are relevant through the investment chain however the nature of the risks and their potential impact on each are very different. Caution needs to be applied in developing recommended disclosures to ensure that they are relevant and material to the entity.</p>	

<u>Q3. Which users in the financial sector should be considered as the target audience? Check all that apply.</u>	
Investors (including insurance, asset managers, funds, pensions, etc.)	X
Banks (diversified, commercial, project finance)	X
Broker-Dealers and Investment Banks	X
Credit Rating Agencies	X
Consultants/Advisory	X
<p>Other Climate related data and information is relevant across the investment chain although the type of information each may want may differ.</p>	



II. CLIMATE-RISK DIMENSION

Q4. For nonfinancial preparers of climate risk and opportunity information, what are the top three key concerns that you would like the Task Force to keep in mind in making our recommendations?

(Limit 1000 characters)

We believe that the non-financial preparers of climate risk and opportunity information (issuers and other unlisted companies or those entrusted by them) concerns are:

- 1. Materiality;** the relevance of different climate metrics and information varies company by company and there should not be a one-size-fits-all reporting framework.
- 2. Alignment with existing standards.** The guidance must help build global harmonisation. This is not to “re-invent the wheel” but help drive improved global harmonisation.
- 3. Level playing field with same sized unlisted companies.** We believe that large non-listed entities should adopt the same reporting standards, to avoid fragmented reporting and skewed picture of climate change, which would not be beneficial to the markets and the economy as a whole. Smaller companies and issuers have fewer resources to employ on reporting which should be reflected in the guidance.

Q5. For users of climate risk and opportunity information, what are five specific points of information that you wish to secure?

(Limit 1000 characters)

We believe that users are interested in information which is:

1. Scope 1 & 2 GHG emissions reported in a standardised manner where boundaries are clear and models are applied in the same manner as per how the annual report accounts are prepared (eg % equity ownership of joint owned entities).
2. Revenues associated with industrial sub-sectors that enable the transition to a low carbon economy. This requires companies to provide in the audited accounts more granular revenue breakdown to the sub-segment level.
3. Fossil fuel reserves. For companies that own fossil fuel reserves for data to be



	<p>provided reserve by reserve, in terms of proven/ probable / possible with a specific breakdown by type (e.g. lignite coal/ bituminous [metallurgical] coal / anthracite coal). Some form of estimation of cost of extraction and projected figures for the CO2 equivalent GHG emissions that would be released in the use/combustion of those reserves.</p> <ol style="list-style-type: none"> 4. Other sector specific data including, for example, auto sector fleet fuel efficiencies; including breakdowns by region and product categories. Other important sectors include but are not limited to; airlines, energy utilities, steel and cement manufacturers 5. Management context, strategies and targets; in addition to “performance” data some more forward looking qualitative and quantitative data is also useful to gauge future direction. <p>Note that for some financial institutions, in particular insurance and under-writing better data on adaption risks to the physical impacts of climate change may be more important.</p>
<p><u>Q6.</u> Are there any best-practice disclosures of climate risks by companies that you would like to bring to our attention? What specific climate elements of this disclosure would you like to highlight? (Please limit to two examples) <i>(Limit 1000 characters)</i></p>	<p>UK Mandatory greenhouse gas (GHG) emissions disclosure. UK listed companies are world leaders in emission data disclosure. The UK was the first country to make it compulsory on a comply or explain basis through an amendment to the Companies Act for companies to include total GHG emissions data (in CO2 equivalence) for their entire organisation in their annual reports. Global emissions must be reported, not just those in the UK.</p> <p>French decree on mandatory climate change-related reporting for institutional investors. Effective from the beginning of 2016, it applies to a wide range of investors, including asset managers, insurance companies, and pension and social security funds. They are being required to report how they integrate climate factors into their investment policies – and, where applicable, risk management. The law makes France the first country to introduce mandatory carbon reporting by investors.</p>



Q7. “Transition Risk” in terms of climate is an evolving term. How would you define this risk? What specific disclosures would help measure it?

(Limit 1000 characters)

Transition Risk. LSEG defines Transition Risk as a set of financial risks which could result from the process of adjustment towards a lower carbon economy. Changes in policy, technology and physical risks could prompt a reassessment of the value of a large range of assets as costs and opportunities become apparent. With industrial change such as this there will be winners and losers, both within industries and between industries. Understanding and modelling potential changes to technology, costs, and demand are all important.

Q8. Which three sectors do you think most exposed to climate risks? For these sectors, how are physical, transition, and liability risks best measured and reported?

(Limit 1000 characters)

- Coal Mining

Transition Risks:

Lower demand and hence price of coal linked to a global move to less GHG intense energy generation. Different types of coal will be impacted to different degrees. Those coals used for thermal uses will be more heavily affected, and more quickly, than coking coal used in steel production. It is also important to be able to model the cost of extraction in order to create a full cost curve.

Liability Risks: Companies with coal assets could face potential future legal challenges due to the the scientific evidence being available for the consequences of fossil fuel combustion and their related policy / business positions when this was known

Physical risks:

Minor relative to the risks above.

- Oil and gas producers

Transition Risks:

Changing demand and hence price for oil and gas linked to a global move to less GHG intense power and transport systems. Different types of oil and gas will be impacted to different degrees. Those that are more carbon intense may be more heavily affected, and more quickly. Gas producers may enjoy higher demand in the short-medium term as economies move away from coal power generation to gas-powered energy generation. It is also important to be able to model the cost of extraction



	<p>and processing/ refining in order to create a full cost curve.</p> <p>Liability Risks: Companies with oil and gas assets could face potential future legal challenges due to the scientific evidence being available for the consequences of fossil fuel combustion and their related policy / business positions when this was known.</p> <p>Physical risks: Much oil and gas production occurs in locations that may be impacted by extreme weather events and by rising sea levels. Understanding the precise location of assets and the adaptation/protection in place and associated future plans may be important.</p> <ul style="list-style-type: none"> • <u>Auto manufacturers</u> <p>Transition Risks: Technology disruption in the auto sector is being brought on through shifting demand and regulations for increasingly efficient vehicles spurring new technological advances particularly in electric vehicles. Vehicle fleet fuel efficiencies reported in a standard and comparable manner and with appropriate breakdown is needed.</p> <p>Liability Risks: They are already now liability risks from potentially misleading regulators over vehicle emission levels. Furthermore, auto-manufacturers who continued to produce vehicles with poor GHG efficiencies could face potential future legal challenges. This would be due to the scientific evidence being available for the consequences of GHG emissions and their policy / business positions when this was known.</p> <p>Physical risks: There may be some occurrence of factories in locations that may be impacted by extreme weather events and by rising sea levels but this will be lower risk than the other factors outlined. Another feasible risk may be access to water itself impacted by climatic factors brought on by climate change.</p>
<p><i>Q9. How should the task force consider the challenge of aggregate versus sector-specific climate-related financial risks and opportunities?</i></p>	<p>The Task Force should consider proposing as few as possible generic economy wide disclosures. This could include total GHG emissions and management context, strategies and targets. This</p>

<p><i>(Limit 1000 characters)</i></p>	<p>allows for global analysis and aggregation. In addition to these sector generic disclosures there is a need for more sector-specific measures. In some areas a reasonable global consensus may be found but in others this may not currently exist.</p> <p>We believe that the Task Force should be cautious in trying to set too many measures until reasonable international consensus has been achieved. For a certain number of disclosures, it may be possible for the Task Force to develop the consensus through its work.</p>
<p><u>Q10. Is there a role for scenario and sensitivity analysis—for the nonfinancial and/or financial sectors? Please provide three specific examples.</u> <i>(Limit 1000 characters)</i></p>	<p>Scenario and sensitivity analysis are critical in understanding risk and relatively likelihoods of different future possibilities. This is important for both preparers of disclosure and for the users. This should probably not be prescriptive. For companies scenario planning allows management to consider how future carbon costs, demand changes, regulations, changing supply and technology advances may impact their business. For investors this is about they use the data to inform investment strategy which given the uncertainties involved understanding outcomes in different scenarios is important. We believe such analysis should not be seen as a replacement of the other forms of disclosure, rather only a possible additional enhancement / complement.</p>

III. ASSET-CLASS DIMENSION

<p><u>Q11. Which are the key asset classes that require initial attention? Are there any gaps that we should focus on? Within this, what are the top two priorities for action?</u> <i>(Limit 1000 characters).</i></p>	
Equities	X
Fixed Income	X
Commodities	X
Project and Infrastructure Finance	X
Real Estate	X
Private Equity	X
Loans and other bank financing	X
Priorities are: Equities, Private Equity, Fixed income	


IV. INTERMEDIARY/USER SCOPE

Q12. Considering the breadth of services the capital supply chain provides, please provide up to three examples of leading work (research or other) from sell-side brokers' investment recommendations, listing rules of stock exchanges, portfolio management and stewardship examples by fund managers, fund-manager recommendations by consultants, or others we should consider.

(Limit 1000 characters)

FTSE Low Carbon Economy (LCE) Industrial Service This is a quantitative model for analysing the industrial transition to a low carbon economy. In this model, FTSE LCE applies a consistent test of utility, which defines and captures the changing profile of LCE revenue lines over time. FTSE LCE covers 11,700+ public companies and uses the specially designed FTSE Low Carbon Economy classification system consisting of eight sectors and 60 subsectors, all accessible via a web-based application. (See Annex B)

UK Mandatory greenhouse gas (GHG) emissions disclosure. UK listed companies are world leaders in emission data disclosure. The UK was the first country to make it compulsory on a comply or explain basis through an amendment to the Companies Act for companies to include total GHG emissions data (in CO2 equivalence) for their entire organisation in their annual reports. Global emissions must be reported, not just those in the UK.

Integrating climate factors into FTSE benchmark creation. FTSE has, and is currently, working with a range of clients to integrate climate factors into core benchmarks.

Q13. Please identify three examples of existing disclosure practices on climate risk and opportunities that you consider to be effective by investment banks, stock exchanges, investment managers, investment consultants, or asset owners. Please indicate the preparer and type of disclosure.

(Limit 1000 characters)

Pension funds. Some pension funds have developed reports which cover topics such as climate risk across total portfolio exposure. This is still very much evolving and these reports are frequently designed in a way that will be accessible to beneficiaries but hence may be less analytical and risk focused. Given their long term investment horizons and (usual) broad diversification focusing on long term factors impact economies globally appears appropriate. Particular schemes that are known for high quality disclosure in this area include the **Environment Agency Pension Fund** (UK) and **PGGM** (The Netherlands).



Q14. How can climate risk information be simply summarized for retail investors? What standards or mechanisms exist for assuring end investors that climate risks and opportunities have been considered in the way that their savings and investment and pension products have been managed?

(Limit 1000 characters)

We believe that many retail investors would rely on investment intermediaries to summarise this information for them. There is a much broader issue around public education around finance, investment and risk. If the retail investors were to be encouraged to access and make sense of the information directly, we suggest adopting a **clear and simple grading system (A-G) based on letters, colour coded**, similar to energy efficiency labelling scheme introduced in the EU. Developing this standard would be complex and would need much consultation, and strong independent and effective governance overseeing how different climate metrics are blended into something simple. FTSE Russell has looked to do this in the development of an ESG Rating that brings together a wide variety of underlying metrics which apply differently to different companies depending on their sector and country operations (see Annex B).

Please see response to Q13 – for case studies for how some pension funds are explaining this in simple terms for beneficiaries.

V. MACRO SCOPE

Q15. In conducting macroeconomic analysis, what are the top three key measures of macroeconomic climate risk performance when seeking to measure the extent to which the global economy is transitioning towards net-zero emissions?

(Limit 1000 characters)

Industrial transition; measuring the rate of growth of new “solution” sectors of the economy i.e. the proportion of corporate revenues coming from “green” products and services. See response under Q12.

Fossil fuel reserves; although emissions also come through other sources including livestock (methane), forests and agriculture, combustion of fossil fuels is believed to represent about 65% of global GHG emissions. Measuring the rate that reserves are being exploited, new reserves identified and the extent to which the entities that own the reserves expect them to be commercially extractable are changing would be a measure.

Operational emissions; understanding these both



	in terms of absolute levels and as a ratio of economic output to measure “carbon intensity” of economic growth.
<p>Q16. One way to measure transition risk is by considering disclosures based on sector/market scenario analysis. What scenario planning work is currently available in this area? <i>(Limit 1000 characters)</i></p>	No response.
<p>Q17. The United Nations Framework Convention on Climate Change five yearly “global stocktakes” seek to establish in part whether financial flows are consistent with the less-than-two-degree scenarios. Are there any climate-risk disclosure recommendations that would appropriately feed into such an effort? <i>(Limit 1000 characters)</i></p>	<p>Please see responses to Q15 and Q5. Such stocktaking should become easier over time as data disclosed becomes more consistent, comparable and reliable through globally harmonized standards.</p>

VI. LOOKING AHEAD

<p>Q18. How should the Task Force define “success”? <i>(Limit 1000 characters)</i></p>	<p>Harmonization. Success would be developing a set of guidelines that will build on the best of existing standards and frameworks that furthers global harmonisation. It should not aim to “boil the ocean” through developing a plethora of new reporting requirements but instead should be very focused on a small number of measures that would be most valuable.</p> <p>According to the report 400 climate or sustainability /ESG regimes have been recognized. The Task Force’s work should enable these to harmonise over time and will require significant international coordination.</p> <p>For investors and issuers as-well as regulators</p>
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	<p>The guidelines must work for investors, issuers, as well as those tasked with monitoring macro-financial stability.</p> <p>For investors it needs to enable better investment decision making (both at asset allocation level and security/stock analysis) and investment stewardship.</p> <p>For issuers, particularly those operating in multiple jurisdictions, it means a clear and simple global reporting standard that is used by all stakeholders. Further for issuers this also means reporting data that is helpful and meaningful for management of material business risks and opportunities. (As illustration many companies note that a more rigorous approach around measuring and reporting GHG emissions leads to them identifying numerous opportunities for efficiencies that improve their profitability.)</p> <p>Adaptability. Our understanding of climate change, its interaction with different industries, technologies, and methods of analysis are constantly evolving. Therefore, the guidance needs to have a mechanism where it would allow for updates. Such updates might be stemming out of macroeconomic changes, technology progress and others.</p> <p>Positive, solution oriented outlook. The transition to a low carbon economy provides huge opportunities for economic growth and development. Understanding the economic transition must include measuring the growth of new low-carbon industries.</p>
<p><u>Q19.</u> What are the key barriers that you believe the Task Force needs to overcome? (Limit 1000 characters)</p>	<ul style="list-style-type: none"> • The number of existing disclosure regimes and the associated number of regulators and standard setters. • Ensuring that the guidance drives harmonisation not increasing divergence and hence even more different disclosure regimes. • Developing disclosure guidance that meets the needs of all critical stakeholders (ie investors, issuers and regulators).



	<ul style="list-style-type: none"> • Encouraging real global application following the creation of the guidance.
<p><u>Q20.</u> Is the Task Force focused on the appropriate set of topics for its Phase II work plan? (Limit 1000 characters)</p>	<p>The four areas set out for work streams are important areas for work. However, we would not regard work stream 4 – stakeholder out-reach and communication as a separate work stream. This should be a key interactive part of the process for the other three work streams. Another core-component of the process for each should be (wherever possible) integration and harmonisation with other standards. Potentially a fourth work-stream could look to consider implementation routes. It is critical that the Task Force builds on other initiatives, helps drive global improved harmonisation and coordinates with those responsible for implementation routes. Exchanges should be explicitly considered here.</p>
<p><u>Q21.</u> What additional topics should it consider? (Limit 1000 characters)</p>	<p>Clarification of Fiduciary Duty could be addressed – ensuring that there is clarity that there is no conflict of interest for fiduciaries in considering climate factors. There still remains much confusion between ethical and fiduciary motivations when considering wider topics such as climate change. Linked to this some consultants and trustees have cited fiduciary duty as a reason for not incorporating ESG factors such as climate into the investment decisions; considering non-financial indicators may be considered ethical motivations rather than being investment relevant. Clarification by regulators may be helpful.</p> <p>Other forms of “natural capital”; Climate change is one component of a range of inter-connected challenges linked to a need for markets to account for forms of “natural capital”. Climate change is currently the most prominent risk to global stability but through environmental constraints and costs not being accounted for in economic systems other threats to economies and societies will also emerge unless these are also considered.</p>

Q22. The Task Force plans to reach out to a broad sample of key stakeholders among preparers, users, and standard setters. Are there particular types of entities or organizations that you believe the Task Force should reach out to? (Limit 1000 characters)

We believe that Stock Exchanges are well placed, as a natural link between issuers and investors, to play a key role. We believe that index and data providers should also be considered as a natural stakeholder.

Further, the Task Force should keep an active dialogue with other standard-setters and regulators. In particular the European Union. The EU has committed to spend at least 20% of its budget on climate-related action. The EU has also used its powers to propose legislation to put forward important measures and requirements regarding energy efficiency and the use of renewables.

Climate and energy initiatives at European Union level are accompanied by national initiatives at Member State level – in particular the recently enacted French law offers effective solutions (also under Q6).

About London Stock Exchange Group

London Stock Exchange Group (LSE.L) (“the Group”) is a diversified international market infrastructure and capital markets business sitting at the heart of the world’s financial community. The Group can trace its history back to 1698.

The Group operates a broad range of international equity, bond and derivatives markets, including London Stock Exchange; Borsa Italiana; MTS, Europe’s leading fixed income market; and Turquoise, pan-European equities MTF. It is also home to one of the world’s leading growth markets for SMEs, AIM. Through its platforms, the Group offers international business and investors unrivalled access to Europe’s capital markets.

Post trade and risk management services are a significant part of the Group’s business operations. In addition to majority ownership of multi-asset global CCP operator, LCH.Clearnet Group, LSEG operates CC&G, the Italian clearinghouse; Monte Titoli, the T2S-ready European settlement business; and globeSettle, the Group’s newly established CSD based in Luxembourg.

The Group is a global leader in indexing and analytic solutions. FTSE Russell offers thousands of indexes that measure and benchmark markets around the world. The Group also provides customers with an extensive range of real time and reference data products, including SEDOL, UnaVista, and RNS.

London Stock Exchange Group is a leading developer of high performance trading platforms and capital markets software for customers around the world.



ANNEX A – LSEG & FTSE Russell: Enabling sustainable investment

FTSE Russell's ESG indexes and Ratings service help to promote global CR standards and enable market participants to integrate sustainability into their investments and support the transition to a low carbon economy.

- **FTSE Environmental Markets Series** Launched in 2008 in partnership with Impax, this series is based around the FTSE Environmental Markets Classification System, which categorizes companies into seven sectors and 29 sub-sectors, according to the types of environmental products or services they provide. These include renewable and alternative energy, energy efficiency from enhanced energy storage to smart grid technology), pollution control, water technology and infrastructure, and waste and recycling technology.
- **FTSE Low Carbon Economy Industrial Service** This is a quantitative model for analyzing the industrial transition to a low carbon economy. In this model, FTSE LCE applies a consistent test of utility, which defines and captures the changing profile of LCE revenue lines over time. FTSE LCE covers 11,700+ public companies and uses the specially designed FTSE Low Carbon Economy classification system consisting of eight sectors and 60 subsectors, all accessible via a web-based application.
- **Customised carbon-optimised indexes.** Since 2010 FTSE has for specific clients developed customised indexes that take FTSE equity benchmarks and maintaining a tracking error very close to the underlying index modified the weights of constituent companies based on their carbon efficiencies to develop indexes with lower associated carbon risk.
- **FTSE4Good Index Series.** Since 2001 FTSE has played a pioneering role in developing ESG indexes through the FTSE4Good Index Family, which comprises companies demonstrating strong ESG performance. With advice and direction from the independent FTSE4Good Advisory Committee, and supported by an evolving criteria platform and direct company communication programme, FTSE4Good has had a significant and measurable impact on the behaviour of companies worldwide while providing investors with a tool for benchmarking and tracking ESG-driven funds. The index family spans 13 benchmarks and tradable indexes covering different regions.
- **FTSE ESG Ratings** The Ratings provide investors with a flexible and granular scoring model, enabling them to understand a company's ESG practices in multiple dimensions and to integrate ESG considerations into investment decisions and stewardship approaches.
- **FTSE Developed ex Fossil Fuels Index Series** Market participants are increasingly looking to manage carbon exposure in their investments and to reduce write-off or downward revaluation risks associated with stranded assets. Stranded assets are fossil fuel deposits that could become uneconomic to extract under certain regulatory responses to climate change. Launched in 2014, the FTSE Developed ex Fossil Fuels Index Series is a capitalisation-weighted index series designed to represent the performance of constituents of the FTSE Developed Index after excluding companies that have certain revenue and/or reserve exposure to fossil fuels.

ANNEX B - Key features of the FTSE Russell ESG Model How Companies Operate

**Key features of the FTSE Russell ESG Model
How Companies Operate**

