BRUNEL
Pension Partnership

FAO Louise Chender
cp21-17@fca.org.uk

David Vickers
Brunel Pension Partnership
101 Victoria Street
Bristol BS1 6PU

10 September 2021

Dear Ms Chender

Re: Enhancing climate-related disclosures by asset managers, life insurers, and FCA-regulated pension providers.

Thank you for the opportunity to provide input into the FCA consultation on climate-related disclosures.

Brunel Pension Partnership was formed in July 2017 and is responsible for the investment of the pension assets (around $40bn) of 10 Local Government Pension Scheme funds[1] in the UK. Brunel understands that every company or asset we invest in operates interdependently with the economy, civil society and the physical environment. Considering whether these interdependencies create **financially material risks or opportunities** for the investments is a core part of our role as a responsible investor and is central to how we fulfil our fiduciary duty.

The purpose of our approach to responsible investment is ***"to deliver stronger investment returns over the long term, protecting our clients' interests through contributing to a more sustainable and resilient financial system, which supports sustainable economic growth and a thriving society."***

Brunel, the pooling company, is approved as a **MiFID** full scope Investment Firm. We are authorised and regulated by the Financial Conduct Authority (No. 790168). So, whilst we are not in scope for the current FCA proposals, we have addressed them as if they were, in the expectation that the FCA will seek to extend the requirements across other investment firms in due course.

Brunel has supported the Taskforce for Climate-related Financial Disclosures (TCFD) since 2017 and has produced a number of TCFD reports, most recently a more detailed Climate Change Action Plan Report to supplement contents in the Annual Report and Financial Statements. In addition to these reports, we produce a Carbon Metrics report for Brunel itself, but also for each client partner fund. These reports provide metrics at a portfolio (product) level. A copy of Brunel's carbon metrics report is appended, as we feel it to be a useful example of the metrics that both Brunel and the pension funds it supports have found useful in decision-making.

[1] Avon, Buckinghamshire. Cornwall, Devon, Dorset, Environment Agency, Gloucestershire, Oxfordshire, Somerset, and Wiltshire Funds

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Brunel is supportive of the FCA's proposals to *require* TCFD from asset managers, insurers, and FCA-regulated pension providers. We see this as critical to increase market transparency, and to inform pricing, capital allocation and other investment decisions that will aid investors (at all levels) to address climate risk and enable our society and economy to reach net zero.

To deliver our aim of being a responsible investor (RI), we integrate a broad spectrum of business, environmental, social and governance risks into all aspects of our investment and operations; but we tailor RI and climate implementation to the needs of each mandate. Inevitably, there will be a range of approaches and supporting metrics needed to get a full picture. However, we support the mandating of some standardised reporting requirements but would recommend some flexibility as different metrics are more useful than others, particularly across asset classes.

LGPS and Pooling Companies

Brunel is regulated by the FCA, as outlined above, but is also impacted by other regulatory frameworks, not least in relation to the investment management of the Local Government Pension Scheme by the Ministry for Housing, Communities and Local Government.

We are anticipating a consultation relating to TCFD/climate disclosures regulations later this year. These reporting requirements will largely relate to the LGPS funds but, as a result and indeed a benefit of pooling, are expected to require considerable input, particularly on metrics, from the pooling companies. Whilst we anticipate consistency with those developed by the Department of Work and Pensions, we flag and request ongoing coordination to ensure a joined-up reporting framework.

A connected point concerns the sequencing of disclosure requirements. Whilst we can appreciate a strategy of 'market pull' to demand disclosure from those at the top of the investment chain, please do not underestimate the effort (and stress), as well as the cost, of trying to do this without a regulatory underpin.

Climate data gaps and standards

Strongly support the use of climate disclosure to influence capital allocation and other investment decisions, but the quality of the underlying data is mixed, particularly when looked at across asset classes and geographies. In the absence of consistent quality data, end-users are dependent on the methodologies of data providers to fill the gaps. This is fine in principle, but stronger oversight and potential quality standards would assist development and ensure a level playing field from a data perspective. We appreciate such work will need to be coordinated across different regulators globally, on both the quality of the underlying corporate/asset data but also on the methodologies and standards of providers.

Enforcement

The recent Intergovernmental Panel on Climate Change (IPPC) report has made the urgency for action very clear. The current consultation is less clear on what enforcement action the FCA would take to ensure that the industry does indeed step up and take the necessary action. We would welcome some clarity on this matter.

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We collaborate extensively through collective action forums with our asset managers and asset owner peers. Transparency is critical to demonstrating that we are delivering on our commitments to our stakeholders. Our reporting also aims to assist partner funds in *their* reporting to their beneficiaries. Our website – www.brunelpensionpartnership.org – provides extensive reporting on our activities. We hope these resources will be of assistance in the FCA's work to enhancing climate-related disclosures by asset managers, life insurers, and FCA-regulated pension providers.

We would be delighted to follow-up on any of the comments made in our response and provide further support to the review. Please contact our Chief Responsible Investment Officer, Faith Ward on faith.ward@brunelpp.org.uk.

Regards

....

Signed by David Vickers
CIO, Brunel Pension Partnership Ltd

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Questions:

Question 1: ***Do you agree with our proposed scope of firms, including the £5 billion threshold for asset managers and asset owners? If not, please explain any practical concerns you may have and what scope and threshold would you prefer.***

Brunel is supportive of the FCA's proposals to require TCFD from asset managers, insurers, and FCA-regulated pension providers as we see this as critical to increase market transparency, and inform pricing, capital allocation and other investment decisions that will aid investors (at all levels) to address climate risk and enable us as a society and economy to reach net-zero.

As expressed above, we anticipate, but also strongly recommend, that the proposed scope of firms covered by TCFD is extended over time to cover organisations such as ourselves and other financial market participants. The coverage of a wider range of firms ensures that climate risk is appropriate managed - but is commensurate with the size and complexity of their business model.

As flagged in relation to us, entities can be captured under a number of regulatory frameworks and therefore strongly encourage coordination to enable coherence and reduce regulatory burden whilst delivering the climate risk outcomes.

Question 2: ***Do you agree with our proposed scope of products? If not, what types of products should, or should not, be in scope and why?***

We support the scope of products and, as a firm that invests across both public and private markets, we are keen to ensure the latter is covered, albeit there are additional data and reporting challenges in this area.

Question 3: ***Do you agree with our phased implementation and timings? If not, what approach and timings would you suggest and why?***

We support a phased implementation timeline but reiterate our points around coordination and sequencing across regulatory frameworks.

Question 4: ***Would there be significant challenges in using proxy data or assumptions to address data gaps? If so, please describe the key challenges and implications as well as any preferred alternative approach.***

We strongly support the use of climate disclosure to influence capital allocation and other investment decisions, but the quality of the underlying data is mixed, particularly when looked at across asset classes and geographies. In the absence of consistent quality data, end-users are dependent on the methodologies of data providers to fill the gaps. This is fine in principle, but stronger oversight and potential quality standards would assist the development and ensure a level playing field from a data perspective.

We appreciate such work will need coordination between regulators globally on the quality of the underlying corporate/ asset data but also on the methodologies and standards of providers.

Whilst asking for a more strategic approach to the problem of data gaps and quality, we recommend that, where proxy data is used, it is accompanied with full disclosure on the methodology, assumptions and limitations.

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We discuss our recommendations relating to data issues across asset classes in our answers to questions 11 and 12.

Question 5: ***Do you agree with our proposals for the provision of a TCFD entity report, including the flexibility to cross-refer to other reports? If not, what alternative approach would you prefer and why?***

Entity-level and product-level reports need to comprehensible in their own context, not requiring a reader to cross reference an unreasonable number of related documents. Whilst supportive of avoiding duplication and being pragmatic, we would urge that summaries are provided where needed. Brunel's own reporting does attempt to do this through layers of reporting. We provide a summary in our Annual Report which focuses on governance and strategic risk, with our more comprehensive report providing the next layer of transparency on operational management, supplemented with case studies. In addition, we also provide dashboards for each portfolio and product. We believe this is a good model for decision-useful TCFD information that meets the needs of multiple stakeholders.

Question 6: ***Do you agree with our proposed approach to governance, strategy and risk management, including scenario analysis? If not, what alternative approach would you prefer and why?***

Broadly yes, but the whole area of scenario analysis needs examining further, not only to ensure regulatory alignment but also to recognise the needs of endusers. Whilst we are supportive of the principle of scenario analysis, we are also aware that anywhere in the region of 70 to 100 different asset managers, all sending in scenarios based on different methodologies over different time horizons, may have limited value, given the cost and complexity of producing them.

We note the forthcoming CFRF report on climate scenario analysis.

Question 7: Do you agree that firms not yet setting climate-related targets must explain why not? If not, what alternative approach would you prefer and why?

Yes, but they need to be smart and useful targets that demonstrate real economy changes, not just portfolio reconstruction to appear better. We support the target-setting approach outlined in the Paris Aligned Investment Initiative (PAII) Net Zero Investment Framework.

Question 8: Do you agree with our proposals for AFMs that delegate investment management services to third-party portfolio managers? If not, what alternative approach would you prefer and why?

As outlined in question 5, it is pragmatic to allow a degree of cross referencing, but disclosures should make sense to the end-user in their own context.

Question 9: Do you agree with our proposals for asset owners to cross-refer to group-level, third-party or delegate reports, where relevant? If not, what alternative approach would you prefer and why?

As outlined in question 5, it is pragmatic to allow a degree of cross referencing, but disclosures should make sense to the end-user in their own context.

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Question 10: Do you agree with our proposed requirements for product or portfolio-level disclosures, including the provision of data on underlying holdings and climate-related data to clients on demand? If not, what alternative approach would you prefer and why?

We support the proposed requirements for product or portfolio-level disclosures. These levels of disclosure is essential to enabling investors and consumers to make climate risk aware investment decisions.

Question 11: ***Do you agree with the list of core metrics, including the timeframes for disclosure? If not, what alternative metrics and timeframes would you prefer and why?***

The metrics proposed by the FCA are predominately, if not exclusively, useful in looking at listed markets. We would also flag that metrics should be selected as those most relevant and allow alternatives where that is the industry standard. We would recommend the introduction of some flexibility to allow for the developing nature of data and tools. That said, flexibility needs to be reasonable and to be set in relation to market standards, not used as an excuse for poor disclosure.

5.16 Table of metrics
In relation to Scope 3 data, we support promoting the disclosure all Scope levels. It is vital to the end-user that Scope 1, Scope 2 and Scope 3 need to be clearly distinguishable from each other; but we also strongly recommend that **Scope 3 is subdivided** into upstream and downstream, as the associated management actions and risks are very different.

In selecting the core metrics, we appreciate the FCA's need to align with other frameworks both in the UK and EU, but we would also suggest that there are some key omissions which, from our own experience and feedback from pension fund clients, they find particularly useful.

- Extractive revenue exposure as share (%) of total revenue.
- Value of holdings (VOH)-companies who derive revenues from extractives.
- Breakdown of fossil fuel reserves by fuel type and future emission potential
- Extractive industry revenue exposure
- Disclosure rates

To these, we are also seeking to add metrics relating to climate solution/ green revenues (linked to EU/UK Taxonomies) and using Transition Pathway Initiative more extensively to create more metrics and targets going forward. This is consistent with the DWP's ask to include non-emissions-based metrics alongside emissions-based ones.

Fossil Fuels/ Extractive Industry Revenue exposure

The most common question we are asked is over our fossil fuel exposure, albeit we can be asked in different ways. We currently report on and would recommend;

- Extractive revenue exposure as share (%) of total revenue.
- Value of holdings (VOH)-companies who derive revenues from extractives.
- Breakdown of fossil fuel reserves by fuel type and future emission potential
- Extractive industry revenue exposure

Extracts from Brunel reporting - quarterly reporting to clients (top left) other graphs annual metrics report.

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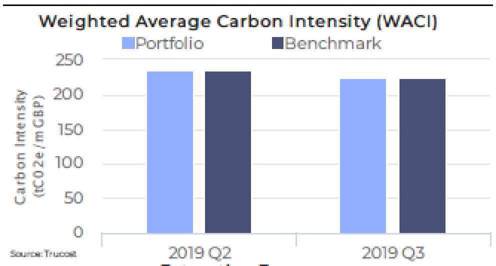
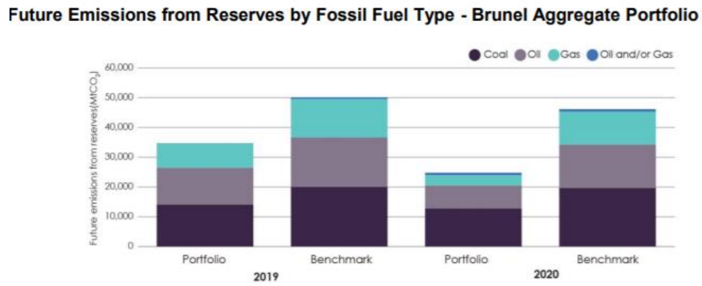
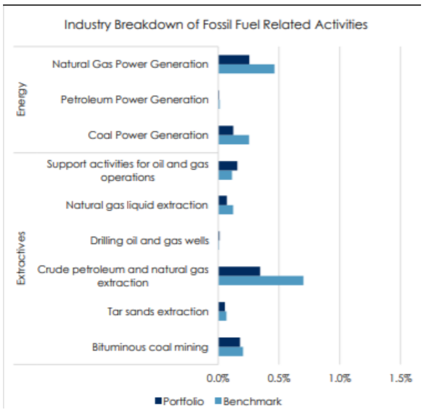




Extractive Exposure

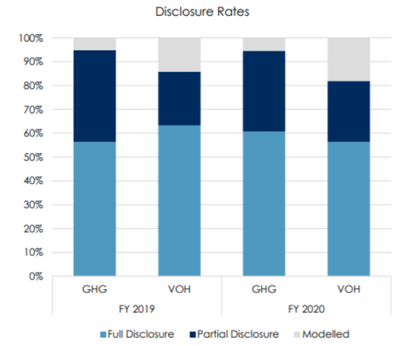
	Total Extractive Exposure[1] Q2	Total Extractive Exposure[1] Q3	Extractive Industries (VOH)[2] Q2	Extractive Industries (VOH)[2] Q3
Portfolio	3.28	3.32	9.38	9.08
Benchmark	3.28	3.32	9.38	9.08

[1]Extractive revenue exposure as share (%) of total revenue.
[2]Value of holdings(VOH)-companies who derive revenues from extractives.



Disclosure rates

Brunel also discloses on the proportion of the data for Scope 1 emissions that is directly reported, partial and modelled. We would like to extend this analysis to Scope 2 in due course. We believe this is also a core indicator as it provides the end-user with an understanding of the level of confidence in the data. It is also a good measure to set targets to improve through stewardship with the underlying companies.



Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	61%	56%
Partial Disclosure	34%	26%
Modelled	5%	18%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Question 12: Do you agree that firms should calculate metrics marked with an asterisk according to both formulas set out in columns A and B of Appendix 3? If not, please explain why, including any challenges in reporting in accordance with either or both regimes.

In selecting the core metrics, we appreciate the FCA's need to align with other frameworks both in the UK and EU. However, there is going to be a need to provide supporting explanations to reduce confusion.

There is a wider challenge to the industry and its consumers in getting to grips with the disclosures and being equipped to be able to make use of them in a way that will achieve the objectives of enabling decarbonisation and achieving net-zero.

Question 13: Do you agree that, subject to the final TCFD guidance being broadly consistent with that proposed in the current consultation, our proposed rules and guidance should refer to:

- ***The TCFD Final Report and TCFD Annex in their updated versions, once finalised;***
- ***The TCFD's proposed guidance on metrics, targets and transition plans and the proposed technical supplement on measuring portfolio alignment.***

We support the development of the TCFD. The new requirements recommend metrics for all organisations. These metrics are an approach for those in scope in relation to their own organisation. The regulations need to be clear in differentiating between metrics relating to those in scope as a business entity and those relating to its portfolios/ products.

With respect to portfolio alignment, we are supportive of the principle behind forward-looking metrics and actively use the Transition Pathway Initiative in this regard. We do, however, have deep reservations about the proposal to recommend metrics such as the implied temperature rise, most specifically at a portfolio level. Our concerns have been shared with the TCFD as part of their consultation and we have appended that response to this consultation. We also support the feedback provided by the London School of

Economics Grantham Institute on Climate change – the research team who support the Transition Pathway Initiative. Their observations are relevant to the FCA's questions on metrics and to our broader point on standardisation of carbon data. Their response is published here.

Question 14: Do you agree with our approach to additional metrics and targets? If not, what alternatives would you suggest and why?

We are supportive of the principle behind forward looking metrics and actively use the Transition Pathway Initiative in this regard. We have identified additional metrics above.

We are wary of other metrics that are still under development and are only available to users via a limited range of service providers. There are number of other specific metrics we would propose that are relevant within the context of certain asset classes.

In real estate, we would point to the use of the Global Real Estate Sustainability Benchmark (GRESB) metrics. For UK real estate, we believe the energy performance certificate (EPC) or equivalent for other jurisdictions should be used. EPC is increasingly being used in several regulatory and policy frameworks and is therefore influencing investment decisions. Very much in keeping with our opening remarks relating to data quality, EPC is in much need of regulatory tightening. The process behind EPC generation needs much higher quality control. Anecdotal evidence of energy performance being assessed from the kerbside or even drive-by is deeply concerning and undermines the value of what can be an important metric for end investors.

We would also recommend the use of other metrics as set out in the Paris Aligned Investment Initiative (PAII) Net Zero Investment Framework. For example, we support the disclosure stewardship metrics relating to investors' engagement on financed emissions. Such engagement is primarily focused on listed equity and debt but can be applied more broadly.

Question 15: Do you agree with our approach to governance, strategy and risk management, including scenario analysis at product or portfolio-level? If not, what alternative approach would you prefer and why?

Please see our response to question 6 above.

Question 16: What form(s) could quantitative scenario analysis outputs at product or portfolio-level take? What do you consider the cost and feasibility of producing such outputs might be? How useful would such outputs be for users' decision-making?

We note the forthcoming CFRF report on climate scenario analysis.

Question 17: Do you agree with our proposed approach that would require certain firms to provide product or portfolio-level information to clients on request? If not, what approach and what types of clients would you prefer and why?

We seek clarification on the statement about not being able to "request data that precedes the start of the relationship". Whilst we understand the bespoke data request may not be appropriate, Brunel would actively seek to use historical climate-related financial data in its procurement process in the same way it would look at other financial metrics. We would welcome clarification that such requests in this context would be appropriate.

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15th July 2021

Dear Sir/Madam,

Re: TPI Response to the TCFD Forward-Looking Financial Sector Metrics Consultation

We are responding to your consultation on two documents: *Proposed Guidance on Climate-related Metrics, Targets, and Transition Plans* and the associated *Measuring Portfolio Alignment: Technical Supplement*. We do so as Asset Owner members of the Transition Pathway Initiative (TPI) an initiative we established as asset owners to serve the needs of asset owners in understanding the transition to a low carbon economy aligned to the Goals of the Paris Agreement.

Please note that a more detailed technical submission will be made by the TPI technical team to the technical aspects of the consultation. This letter focuses on the concerns of asset owners regarding TCFD's proposals on portfolio assessment and portfolio alignment[1].

The Transition Pathway Initiative has been a long-standing supporter of TCFD and of initiatives that support TCFD (e.g. Climate Action 100+). We recognise the important role that TCFD has played in framing and driving corporate and investor climate change disclosures and in putting climate change on the agenda for company and investor leadership teams. We also see that TCFD has now achieved the status of a *de facto* standard-setting body on climate-related disclosures; that is, if TCFD recommends disclosure of an indicator or other information, that recommendation is treated in a similar manner to a disclosure request from a regulatory agency.

In preparing this submission, we have consulted extensively with other asset owners, we have carefully reviewed the two consultation documents and we have had a detailed discussion with the TCFD Team and other members of the COP26 Private Finance Hub.

Our conclusion from those discussions can be summarised as follows:

- There remain significant gaps and technical weaknesses in the two consultation documents which mean that the recommendations in the report relating to portfolio

[1] We also wish to note that we agree with many of the specific elements of the consultation. For example, we welcome the proposals to develop a specific list of climate metrics and targets which are essential to enable the climate transition (the TPI technical submission provides further commentary on this point), the emphasis on climate opportunities as well as risks, and the focus on decarbonisation strategies.

assessment and portfolio alignment are not supported by the information presented in the reports. We also note the similar concerns expressed by the Bank of England in its May 2021 paper: *Options for greening the Bank of England's Corporate Bond Purchase Scheme*[2].

- We disagree with the positioning of implied temperature rise as a more sophisticated – and, in turn, more relevant - metric. We acknowledge that calculating implied temperature rise is a complex calculation than other methods presented, but this does not mean that it is a more robust or decision-useful measure.

- The adoption of portfolio alignment metrics will have a series of undesirable consequences for asset owners potentially forcing them to breach their fiduciary duties, imposing significant additional costs on asset owners. We remain concerned that the TCFD's proposals seem to have been developed without consideration of the feasibility and cost versus the benefits for pension funds or asset owners. We see the attraction of the TCFD's proposals for fund managers looking to develop and market green products, but do not see the same benefit for asset owners that have very different duties, interests and responsibilities.

- Our most fundamental concern remains that the TCFD's proposals will drive decisions that could undermine wider efforts to transition to a low carbon economy. In particular, the implied temperature metric has the potential to create wide misunderstanding and to drive the carbon washing of portfolios. It would become increasingly difficult to hold a portfolio of transitioning assets in high carbon intensive sectors, even if those very same companies had been responsive to investor engagement and made credible and independently verified net zero aligned targets that were consistent with the transition. Given that these are the companies and assets we need to transition, such an outcome seems perverse and, presumably, not the intention of the TCFD's proposals.

In order to support asset owners as effectively as possible we have offered to work with TCFD to map out the steps that need to be taken to develop an implied temperature metric, to define the data needed to construct such metrics and to understand how these metrics might be used in investment decision-making. We think that this work will provide the robust foundations needed to support the development of robust portfolio alignment metrics and address the concerns we have outlined.

[2] See https://www.bankofengland.co.uk/-/media/boe/files/paper/2021/options-for-greening-the-bank-of-englands-corporate-bond-purchase-scheme-discussion-paper.pdf?la=en&hash=9BEA669AD3EC4B12D000B30078E4BE8ABD2CC5C1

Below, we set our out views in more detail, providing:

- A brief overview of the Transition Pathway Initiative's (TPI's) experience in this area and of our current and future priorities.
- Our general views on the state of play on portfolio alignment metrics.
- Our views on the two TCFD reports.
- A summary of how we might make progress.

We trust that you will find these comments and proposals helpful. We look forward to hearing from you.

Yours sincerely,

Adam C.T. Matthews
Chair
Transition Pathway Initiative (TPI) &
The Church of England Pensions Board

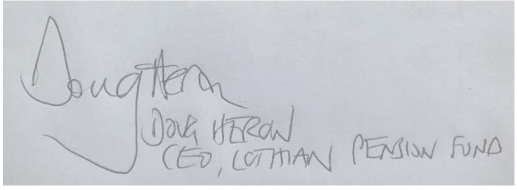
Faith Ward
Member TPI Steering Committee &
Brunel Pension Partnership

David Russell
Member of TPI Steering Committee &
USS

Bess Joffe
Member of TPI Steering Committee &
Church Commissioners for England

Chandra Gopinathan
Member of TPI Steering Committee
RPMI – Railpen

Rachel Ewell
TPI Asset Owner Member
Border to Coast Pensions Partnership



Doug Heron
Asset Owner TPI Supporter
Lothian Pension Fund

Victoria Barron
Asset Owner TPI Supporter
BT Pension Scheme Management Ltd

1. **Background: The Transition Pathway Initiative and portfolio alignment metrics**

The Transition Pathway Initiative (TPI) is a global initiative led by Asset Owners and supported by Asset Managers. Established in January 2017, TPI now has 105 investor supporters with over $29 trillion combined Assets under Management and Advice. TPI's supporters have committed to using the tool and its data in a range of ways, including to inform their investment research, in engagement with companies and in tracking managers' holdings.

Using publicly disclosed data, TPI assesses the progress that companies are making on the transition to a low-carbon economy, supporting efforts to mitigate climate change. The TPI is in line with the recommendations of TCFD and provides data for the Climate Action 100+ initiative. All TPI data are published via an open-access online tool: www.transitionpathwayinitiative.org

TPI has – with its supporters and in partnership with various investor initiatives– pioneered, and continues to pioneer, the development of portfolio assessment and portfolio alignment tools. In partnership with our research partner (the Grantham Institute at the London School of Economics) and our data partner (FTSE Russell), these include the development of:

- Carbon performance assessment tools, using the sector decarbonisation approach, for a range of high impact sectors including electricity, oil and gas, mining, transport, steel, food and chemicals.
- Net zero standards for the oil and gas sector (forthcoming, July 2021) and for the diversified mining sector (forthcoming, late 2021).
- Sector transition pathways and frameworks for various sectors. We are currently working on electricity and steel, and expect to complete these as well as transport by the end of 2021.
- Carbon performance assessment frameworks for corporate fixed income, sovereigns (the ASCOR project) and banks.
- An assessment framework for responsible climate change lobbying (forthcoming, Sept 2021).

2. **Our Position and Perspective**

We think it is important to start with a summary of our position:

- We – both through our leadership role within TPI and through our individual organisations – strongly support the principle of portfolio alignment as demonstrated through our work with and active support of, amongst others, the Paris Aligned Investing Initiative (PAII). We have been long-standing supporters of TCFD. We have used TCFD to structure our own climate change reporting, we have aligned the TPI with TCFD, we have encouraged companies (directly and through collaborative engagement such as CA100+) to align their reporting with TCFD, and we have supported policy proposals to introduce TCFD into legislation.

The Bank of England's Perspective

We note that the Bank of England drew similar conclusions – both about the relevance of the implied temperature metrics and about the hierarchy of different assessment methodologies - in its May 2021 paper: *Options for greening the Bank of England's Corporate Bond Purchase Scheme*[3]

In relation to forward-looking metrics it noted: "Implied temperature rise (ITR) metrics have a particularly appealing intuition. But the current generation of measures remains very sensitive to assumptions, complicating their use in operational decision making. Methodologies for these types of measures are, however, improving… Nonetheless, some issues are inherent to ITR metrics, and may not be eliminated entirely by methodological improvements. For example, they require a large number of assumptions about the nature and credibility of constituent firms' future emissions paths, and can be sensitive to small changes in these assumptions.

Therefore, in parallel to this ongoing support, the Bank and others are exploring simpler and more transparent approaches to forward-looking metrics. This includes looking directly at corporate decarbonisation plans, rather than incorporating them into ITR metrics, to avoid the range of assumptions needed."

- These initiatives – TPI, AOA, PAII, TCFD – have made many important contributions in terms of data, metrics and tools. However, assessing portfolio alignment – in particular, using the more complex metrics such as implied temperature rise – remains very much a work in progress. There are many data and methodology issues that need to be resolved before such metrics can be considered ready for widespread adoption. We have attached our October 2020 submission to TCFD which sets out some of these issues.

- We are concerned that what we see as the rush to adopt portfolio alignment metrics – in particular those which reduce this to a single metric – will have a series of undesirable consequences for asset owners. In particular, we are concerned that:
  - Asset owners will be forced to make investment decisions that compromise the duty that they owe to their beneficiaries.
  - We create incentives for asset owners to divest from high impact sectors rather than to stay invested and encourage, challenge and support company management to decarbonise their business and achieve net zero.
  - The utility of the proposed metrics for decision-making has not been fully demonstrated; we risk requiring asset owners to do a significant amount of work that provides no benefit either to them as investors, to their beneficiaries or to wider society.
- The status of TCFD means that it is now a *de facto* standard in many jurisdictions and an actual standard in an increasing number of jurisdictions. Therefore, any changes, even if apparently modest, need to be properly scrutinised and reviewed before they are adopted.

[3] See https://www.bankofengland.co.uk/-/media/boe/files/paper/2021/options-for-greening-the-bank-of-englands-corporate-bond-purchase-scheme-discussion-paper.pdf?la=en&hash=9BEA669AD3EC4B12D000B30078E4BE8ABD2CC5C1

This is not a call to preserve TCFD as it is for all time but, rather, an acknowledgement that the evolution of TCFD needs the same level of scrutiny and governance as domestic legislation. That is, the benefits and the costs of any changes to TCFD need to be clearly documented and discussed.

3. **Comments on the TCFD reports**

Turning to the two TCFD reports (*Proposed Guidance on Climate-related Metrics, Targets, and Transition Plans* and *Measuring Portfolio Alignment: Technical Supplement*), we would like to offer the following comments:

- We recognise the importance of both documents and support their general aims.
- We are however concerned that they risk hard-wiring inappropriate reporting requirements into TCFD, at a point when those technical requirements are a long way from being properly developed, meaningful, decision-useful or even cost-effective to apply (again, see our October 2020 submission to TCFD).
- We are concerned that both documents draw conclusions that are not supported by the analysis within the reports. As we discussed in our meeting, the reports do not set out – for example – the core steps that need to followed to produce an implied temperature metric. As a consequence, assertions in the report (e.g. 'Additionally, only ITR tools provide the ability to translate degree of misalignment of a given company with a benchmark into consequences for a desired climate goal,…' (p. 6)) are simply not supported by the analysis in the report.

4. **Moving Forward**

As we discussed, there is a strong interest and desire on our part to advance this agenda at pace, and to support TCFD in its efforts. There are two areas where we think progress can be made:

- Rewording the TCFD recommendations so that additional reporting requirements are introduced for asset owners only at the point when such reporting is practical, cost-effective and generates decision-useful information.
- Developing a more rigorous approach to and understanding of portfolio alignment metrics and measures. We outline each of these briefly

4A. TCFD Recommendations

- We refer to the Asset Owner related recommendation on p. 69 (which states: "Asset owners should measure and disclose the alignment of their portfolios consistent with a 2°C or lower temperature pathway (e.g., Paris-aligned), and incorporate forward-looking alignment metrics into their target-setting frameworks and management processes."
- Our view – reflecting the comments above - is that this wording is both overly prescriptive and not reflective of current practice, and therefore needs to be changed. We also recognise that there is a need to create pressure for action in this area so that robust, decision-useful tools and metrics are developed.

- We therefore suggest the following wording: “As the data and tools to assess portfolio alignment are not, as yet, sufficiently developed, asset owners should plan to measure and disclose the alignment of their portfolios consistent with a 2°C or lower temperature pathway (e.g., Paris-aligned), and incorporate forward-looking alignment metrics into their target-setting frameworks and management processes. Asset owners should also report on the efforts they have taken and intend to take to produce the data and tools necessary to conduct a full portfolio alignment assessment.”

4B: Portfolio alignment metrics and measures

The narrative in the Technical Supplement about implied temperature rise metrics is essentially a black box discussion. It is asserted that the approach is relevant but with no substantive explanation of what the approach involves (i.e. how is the metric constructed), the data needed to construct the metric or the decision-usefulness of the metric or the underlying calculations.

We have therefore suggested to the TCFD Team that we work with them to conduct an analytical exercise that has three elements:

- A mapping of the steps that need to be taken to develop an implied temperature metric or other measure of portfolio alignment.
- For each step:
    - Identify the data needed for the step [noting that there may be more than one approach or that different data sets may fill the same need].
    - Assess whether the data sets exist or whether there are gaps.
    - Identify the actions needed to fill these gaps.
- For each step:
    - Explain what inferences/conclusions could be drawn if complete data sets were available.
    - Explain what inferences/conclusions could be drawn using current data sets.
    - Define the decisions that can be made based on the information.

This analysis will require further consideration on an asset class by asset class basis and will also need an explicit discussion of uncertainties (in data, in methods, in decision-making).

Brunel Pension Partnership
2021 Carbon Metrics Report

Brunel Pension Fund
Carbon Metrics Report

Contents

Brunel Pension Fund
Carbon Metrics Report

Holdings as at 31st December 2020

Key Info:	AUM in mGBP: 15,178	Coverage: 98%	29/04/2021

Carbon Metrics Report 2021

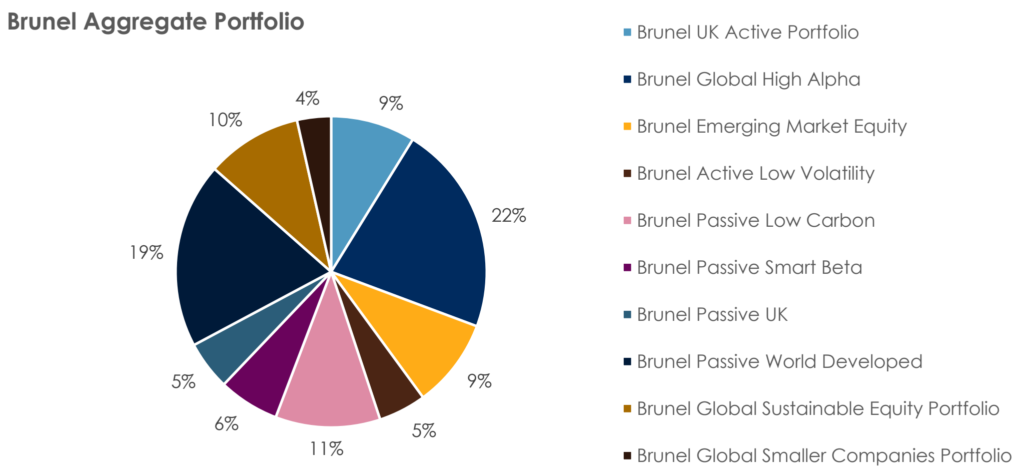
- This report illustrates key Carbon Metrics for the Brunel Aggregate Portfolio and the associated underlying Brunel Portfolios as of 31 December 2020
- This report builds on our baseline carbon metrics report published in December 2019, and documents the results of the decarbinsation work we have undertaken across our Portfolios.
- We have been working extensively on decarbonisnig our Portfolios alongside our managers.
- We extend our thanks to S&P Trucost who provided the footprinting data for this report.

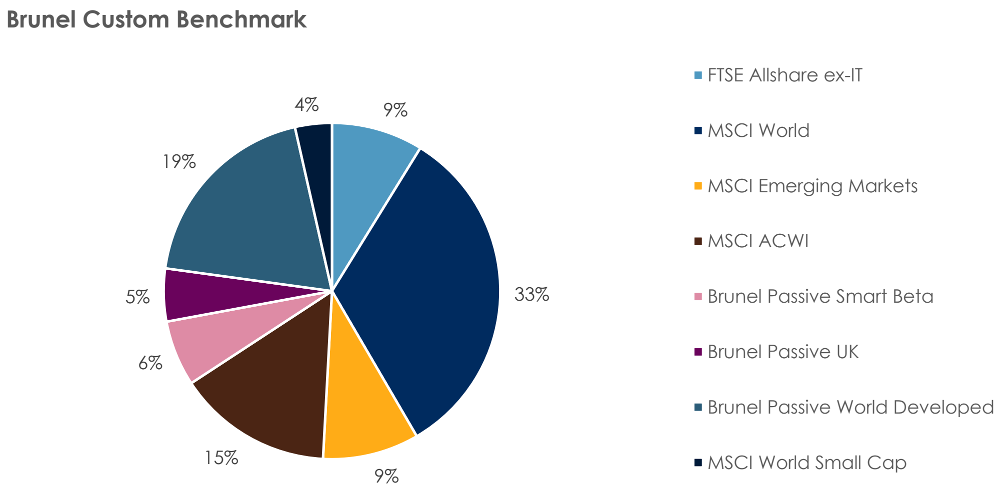
Executive Summary

- The Brunel Aggregate Portfolio consists of the underlying Brunel Portfolios, weighted by assets under management as of 31 December 2020.
- Looking at the Weighted Average Carbon Intensity (WACI), the **Brunel Aggregate Portfolio is less carbon intensive than its Custom Benchmark**, with a relative efficiency of +22%.
- All Brunel Portfolios have lower carbon intensities than their respective benchmarks
- We have been working hard alongside our appointed managers to **reduce the carbon intnesity of our Portfolios.**
- The UK Active Portfolio saw a decline in carbon intensity, from 259 tCO2e/mGBP as of December 2019 to 199 tCO2e/mGBP in December 2020 – a 23.2% reduction.
- The carbon intensity of the Emerging Market Portfolio dropped from 522 tCO2e/mGBP in December 2019 to 402 tCO2e/mGBP in December 2020 – down 22.9%.
- The Active Low Volatility Portfolio fell from 259 tCO2e/mGBP in December 2019 to 194 tCO2e/mGBP in December 2020 – a 25.1% reduction.
- Of the Brunel Portfolios within the Aggregate, the highest intensity was the Brunel Passive Smart Beta (419 tCO2e/mGBP), while the lowest was the Brunel Global High Alpha (143 tCO2e/mGBP).
- The Brunel Aggregate Portfolio is **less exposed to both fossil fuel revenues** (1.4% vs 2.2%) and **future emissions from reserves** (24.8 MtCO2 vs 46.2 MtCO2) than the Custom Benchmark.
- **Disclosure is a key area of focus for our engagement programme.** The rate of companies in the Brunel Aggregate Portfolio for which fully disclose carbon data was available was 61% (carbon weighted method) and 56% (investment weighted method), indicating scope for improved reporting among investees.

The Brunel Aggregate Portfolio and Custom Benchmark

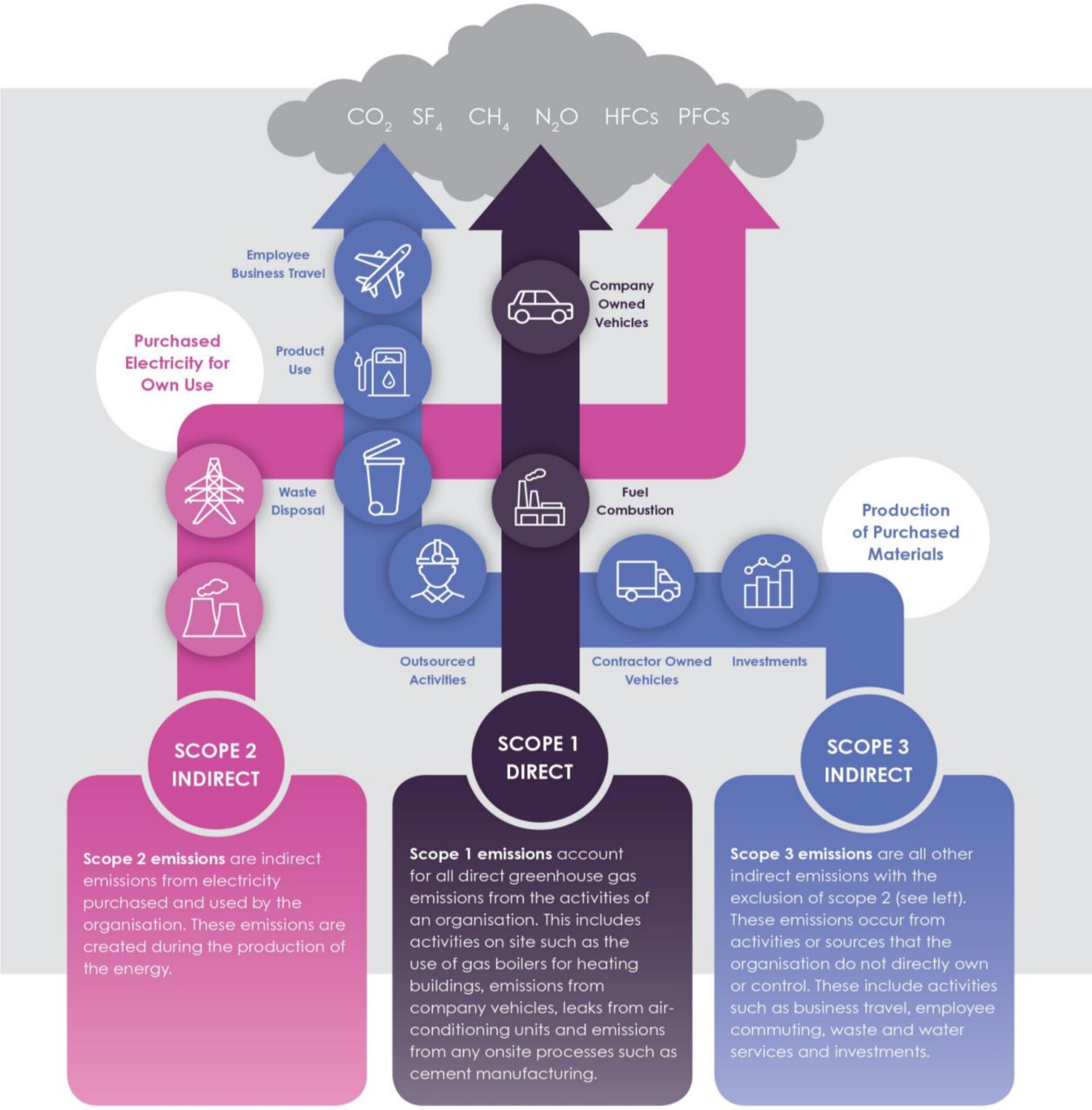
- This report includes a variety of carbon metrics, including the weighted average carbon intensity (WACI), fossil fuel activities, fossil fuel reserves and carbon data disclosure rates for each of the Brunel Active and Passive Portfolios.
- We also report on the Brunel Aggregate Portfolio. This consists of each of the underlying Brunel Portfolios weighted by assets under management as of 31 December 2020. Details of this Portfolio are illustrated below.
- We have also created a Custom Benchmark Portfolio in order to make a meaningful comparator. This Custom Benchmark consists of the benchmarks of the underlying Brunel Portfolios, weighted by investment as of 31 Decekber 2020.





Scope 1, 2 and 3 emissions

In this report we include scope 1, scope 2 and first tier scope 3 emissions in our calculations. The below graphic explains each of these.

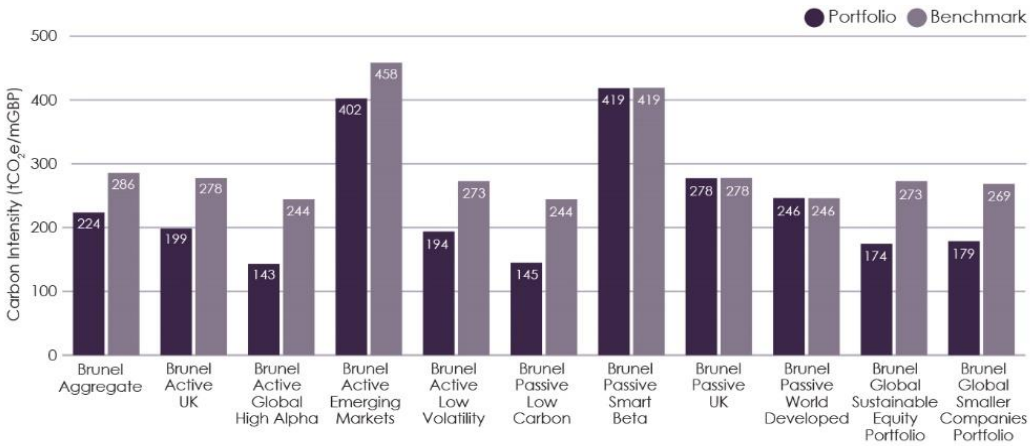


Weighted Average Carbon Intensity (WACI)

The WACI shows a portfolio's exposure to carbon intensive companies. This measure is determined by taking the carbon intensity of each company and weighting it based on its holding size within the Portfolio.

The WACI is one of the measures recommended by the **Task Force on Climate-related Financial Disclosures (TCFD).** Because carbon intensive companies are more likely to be exposed to potential carbon regulations and carbon pricing, this is a useful indicator of potential exposure to transition risks such as policy interventions and changing consumer behaviours.

In this report we illustrate the weighted average carbon intensity (WACI) of The Brunel Aggregate Portfolio and each of the underlying Brunel Portfolios, alongside their respective benchmarks.



Portfolio	Carbon intensity 2020 vs December 2019 Benchmark Baseline
Brunel Aggregate Portfolio	-33.1%
Brunel UK Active Portfolio	-29.6%
Brunel Global High Alpha Portfolio	-52.4%
Brunel Emerging Market Equity Portfolio	-29.4%
Brunel Active Low Volatility Portfolio	-41.9%
Brunel Passive Low Carbon Portfolio	-51.9%
Brunel Passive Smart Beta Portfolio	-24.5%
Brunel Passive UK Portfolio	-1.2%
Brunel Passive World Developed Portfolio	-18.7%
Brunel Global Sustainable Equity Portfolio*	n/a
Brunel Global Smaller Companies Portfolio*	n/a

Meeting target Action underway

*Portfolios launched in 2020. We are in the process of establishing an appropriate benchmark date

We aim to reduce the carbon intensity of our Portfolios by 7% each year.

All active equity Portfolios have achieved at least a 7% emissions intensity reduction.

As of 31 December 2020 the Brunel Aggregate Portfolio had an efficiency of 22% versus its Custom Benchmark. It saw an efficiency improvement of 15.4% versus 31 December 2019.

Each of the underlying Active Brunel Portfolios have a WACI below their respective benchmarks. In this report we also illustrate how the WACI has changed year on year for each of our Portfolios (with the exception of Global Smaller Companies and Global Sustainable that were both launched in 2020.

The Brunel Passive Portfolios (Passive Smart Beta, Passive UK and Passive World Developed) track their respective benchmarks. The priority for 2021 is looking at low-carbon, potentially Net Zero benchmarks for our index tracking Portfolios.

Fossil Fuel Related Activities

It is important to identify exposure to business activities in extractives industries in order to assess the potential risk of 'stranded assets'. Stranded assets are assets that may suffer premature write-downs and may even become obsolete due to changes in policy or consumer behaviour.

We can identify the exposure to stranded asset risk in a number of ways. One way is to consider the fossil fuel related activities of the underlying companies within our Portfolios.

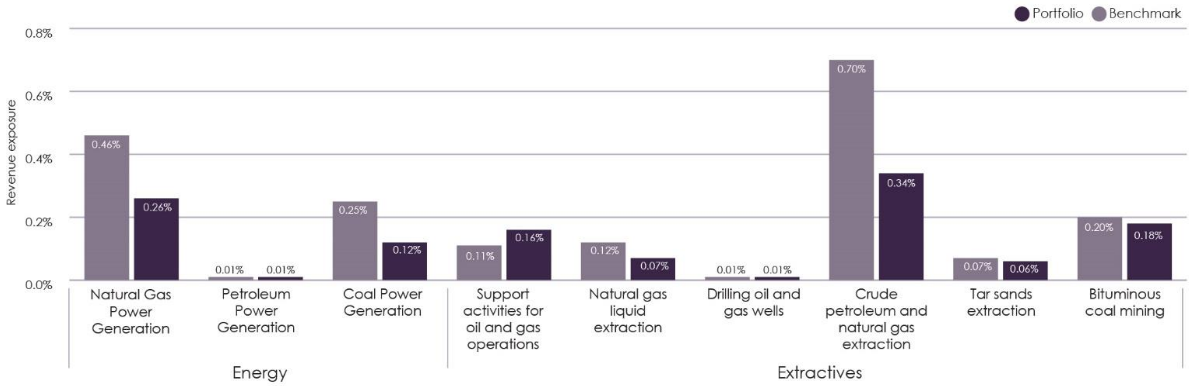
Extraction-related activities:

- Crude petroleum and natural gas extraction
- Tar sands extraction
- Natural gas liquid extraction
- Bituminous coal underground mining
- Bituminous coal and lignite surface mining
- Drilling oil and gas wells
- Support activities for oil and gas operations

We identify companies with exposure to fossil fuel related energy generation (gas power, petrol power and coal power) and fossil fuel related extraction related activities (definitions on the left). We can assess the revenue exposure that each company has to these activities - and aggregate this to get an overall Portfolio assessment.

We illustrate this revenue exposure for all Brunel Portfolios and their respective benchmarks. We also provide an assessment of the Brunel Aggregate Portfolio.

The Brunel Aggregate Portfolio - Fossil Fuel Revenue Exposure



The Brunel Aggregate Portfolio is less exposed to fossil fuel revenues than its Custom Benchmark (1.4% vs 2.2%).

The Portfolio is less exposed to fossil fuel related activities across all generation and extractives activities measured, with the exception of 'support activities for oil and gas operations'.

Our Active Portfolios have significantly less exposure to fossil fuel related activities across most of these activity types compared to their respective benchmark. To view each Portfolio please see the analysis later on in this report.

Fossil Fuel Reserves Exposure

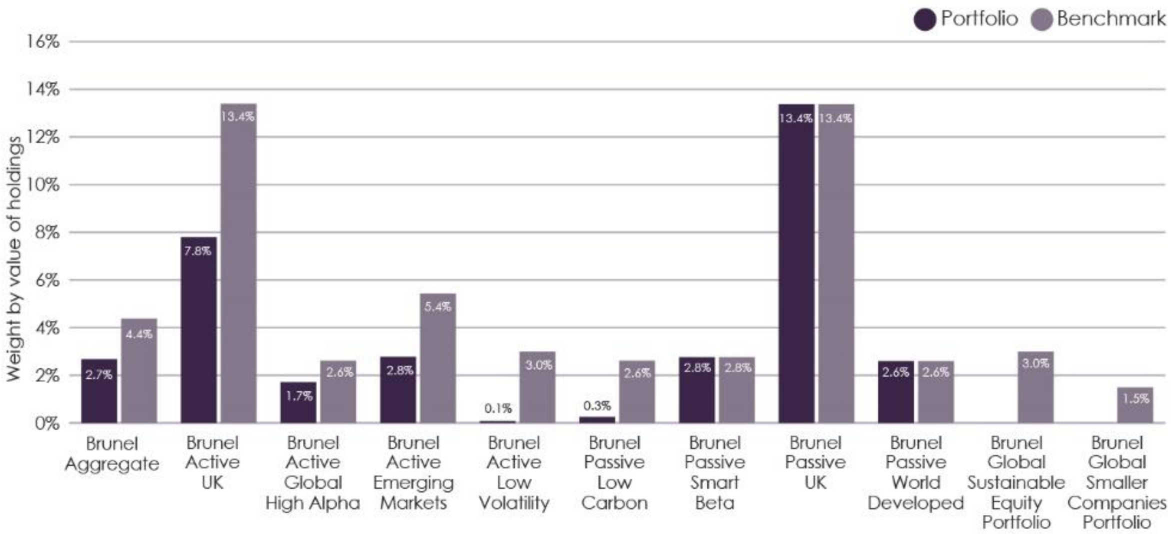
As well as assessing the revenue exposure from fossil fuel related activities, another way to assess the risk of stranded assets is to consider fossil fuel reserves. This is the exposure to fossil fuels which have not yet been realised by companies.

Fossil fuel reserves exposure give us a measure of companies that have disclosed their 'proven' reserves, as well as capturing companies that have 'probable' fossil fuel reserves.

Proven reserves exposure - have a > 90% chance of being present
Probable reserves exposure - have a >50% chance of being present

We identify companies that have both proven and probable reserves - and can look at the aggregate exposure within each of our Portfolios, as well as the Brunel Aggregate Portfolio. Each Portfolio is illustrated in this report against its respective benchmark.

Fossil Fuel Reserves Exposure



The Brunel Aggregate Portfolio is less exposed to fossil fuel reserves (2.7%) compared to its Custom Benchmark (4.4%).

Our Active Portfolios have significantly less exposure to fossil fuel reserves compared to their respective benchmarks.

As expected our Passive Portfolios track their relevent indexes.

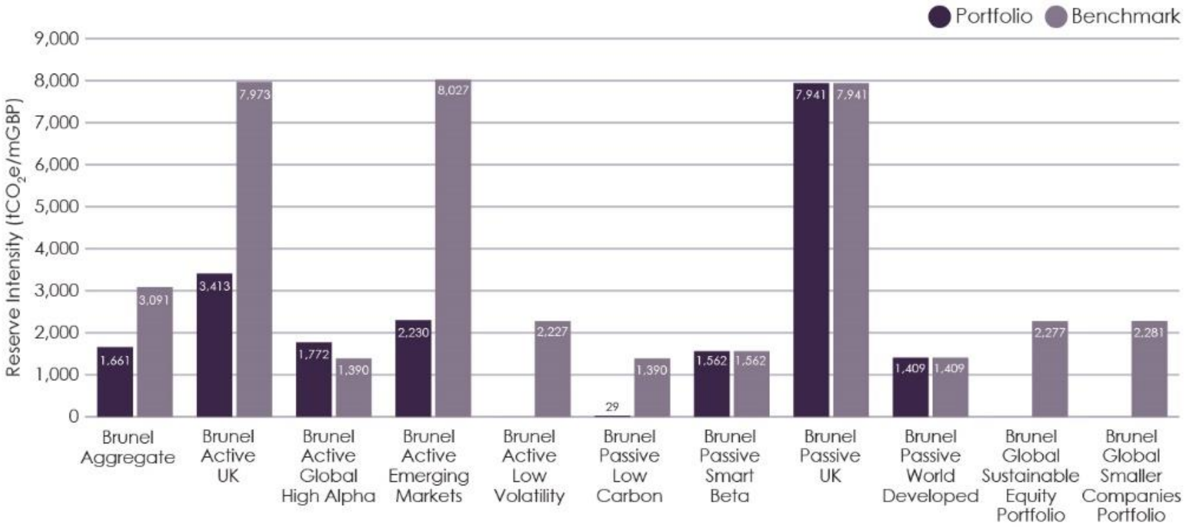
Potential Emissions from Reserves

Taking the reserves exposures discussed above, we can look at an assessment of potential future emissions that may incur from these reserves being realised. This metric is not included in the WACI figure (which focuses on current intensity) - and so it is an important assessment of company's potential contribution to emissions via its stockpile of fossil fuels.

We have been able to assess the potential emissions associated with the proven and probable reserves for companies within our Portfolios, as well as an overall Portfolio assessment.

We illustrate the potential emissions from reserves for each of our Portfolios and their respective benchmarks below, as well as the Brunel Aggregate Portfolio.

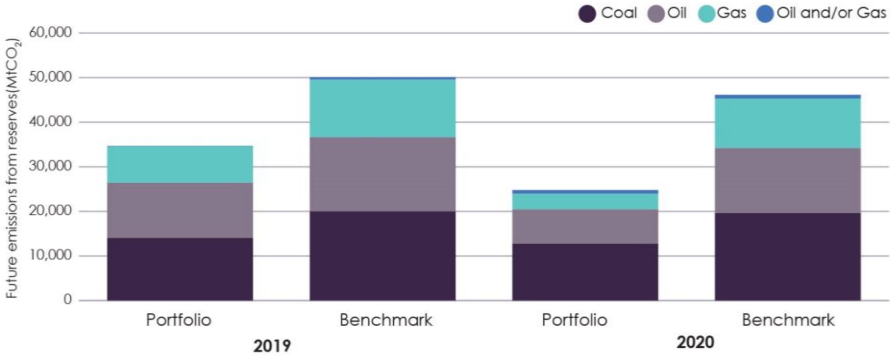
Future Emissions from Reserves



As well as an overall assessment of potential emissions from reserves, we are able to break these potential emissions down by fossil fuel type. We provide this analysis for each Portfolio against its benchmark, as well as how it has changed over time.

Below we display this analysis for the Brunel Aggregate Portfolio.

Future Emissions from Reserves by Fossil Fuel Type - Brunel Aggregate Portfolio

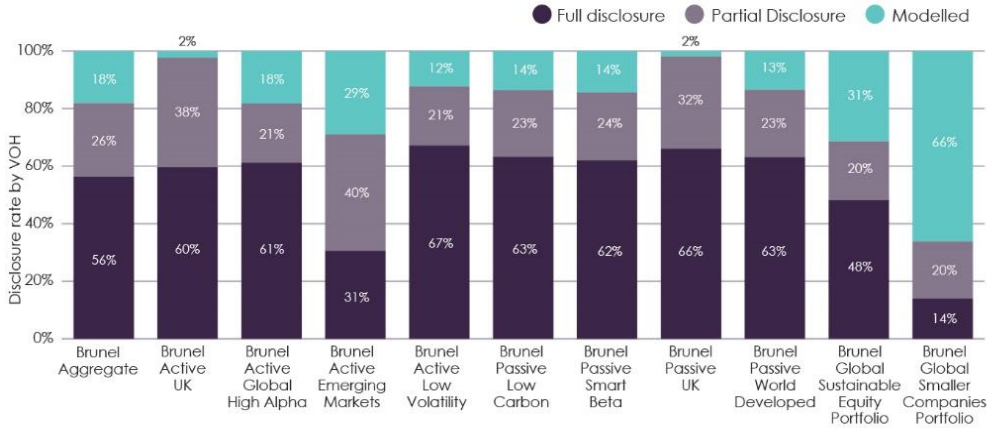


Disclosure Rates

In order to determine the carbon footprints and associated metrics in this report, Trucost collects company information such as disclosure around greenhouse gas emissions and business activities. To collect this data Trucost use a variety of sources such as annual reports and financial statements, regulatory filings, Corporate Social Responsibility reports and information published on company websites.

In the absence of this data, Trucost uses what is known as an 'input-output model' to estimate as best as possible the data for a particular company. This model combines industry-specific environmental impact data alongside macroeconomic data. Sometimes a company reports some carbon or business activity data; in which case Trucost can partially model the company's footprints and metrics. In the absence of usable or up to date disclosures Trucost fully models a company's footprint and metrics.

Discloure Rates - by Investment Weight



Full Disclosure - companies fully reporting their own carbon data.

Partial Disclosure - the data disclosed by companies has been adjusted in some way. This may include using data from previous years' disclosures as well as estimating changes in business activities.

Modelled - in the absence of usable or up to date disclosures, the data has been estimated by Trucost models.

Disclosure rates vary enormously across the world and this is one of the reasons Brunel is a strong advocate for mandatory climate risk reporting for all companies. The higher the level of direct disclosure, the higher the confidence in the data against which to take action.

Over time, we seek to increase the proportion of direct or 'full disclosure' of all our portfolios.

The level of company disclosures for the Brunel Aggregate Portfolio and each Brunel Sub-Portfolio is illustrated above. Unsurprisingly companies under lower regulatory regimes such as Smaller Companies and Emerging Markets have lower levels of disclosure rates.

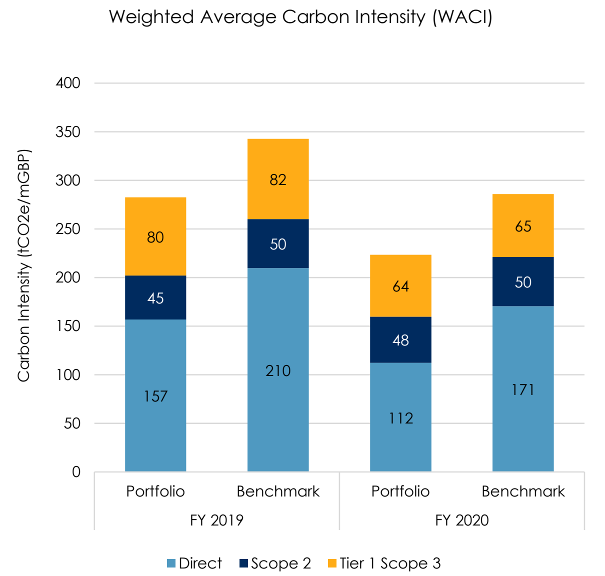
In this report we provide a breakdown of the disclosure rates of each of the Brunel Portfolios and the Brunel Aggregate Portfolio on both an investment weighted and greenhouse gas weighted basis. We also show how it has changed over time.

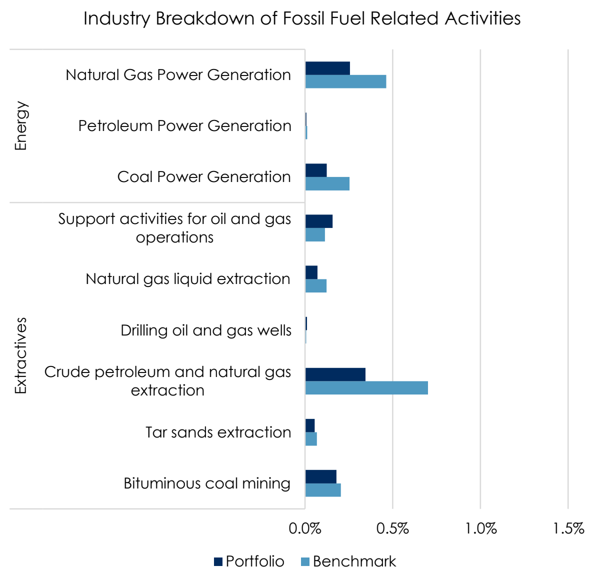
Generally speaking all of our Portfolios tend to have higher disclosure rates than their respective benchmarks.

Brunel Pension Partnership

Brunel Aggregate vs Brunel Custom Benchmark

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

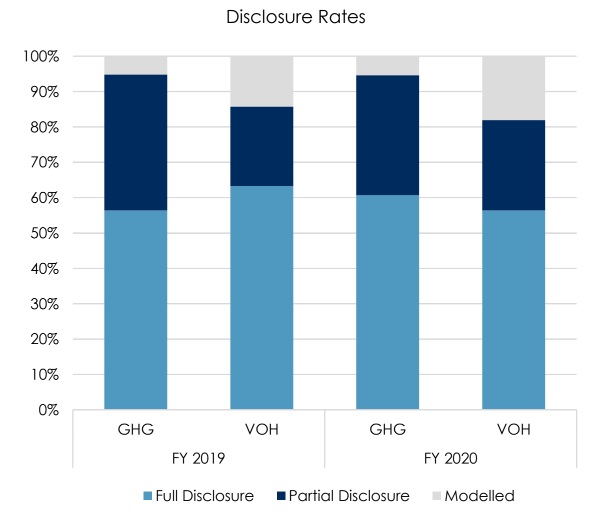
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
PT Semen Indonesia (Persero) Tbk	14,209	0.05%	-3.25%
Rio Tinto Group	965	0.58%	-1.94%
NextEra Energy, Inc.	3,169	0.12%	-1.60%
LafargeHolcim Ltd	6,862	0.05%	-1.60%
The Southern Company	5,873	0.05%	-1.39%

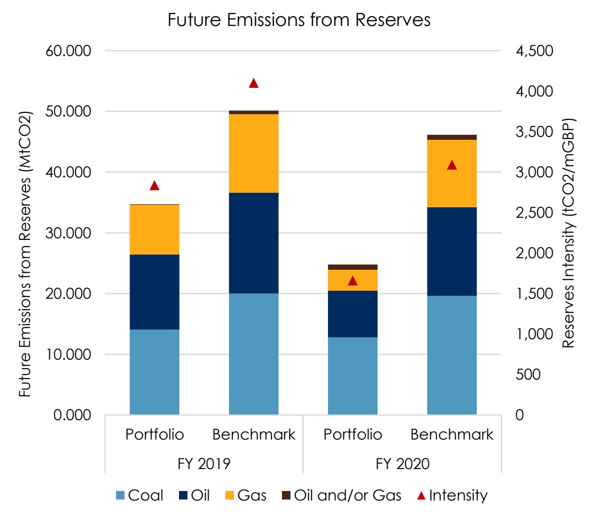
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Royal Dutch Shell PLC	0.54%	218
BP p.l.c.	0.24%	91
BHP Group	0.49%	56
Berkshire Hathaway Inc.	0.48%	28
Chevron Corporation	0.09%	22

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	61%	56%
Partial Disclosure	34%	26%
Modelled	5%	18%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

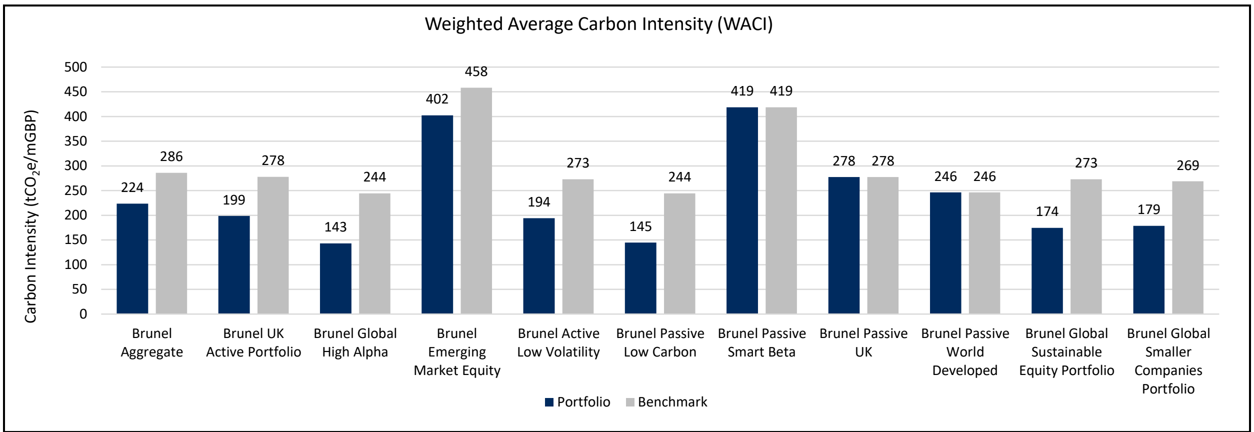
Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	14.08	20.00	12.77	19.61
Oil	12.35	16.63	7.69	14.59
Gas	8.17	12.88	3.47	11.12
Oil and/or Gas	0.09	0.61	0.87	0.84

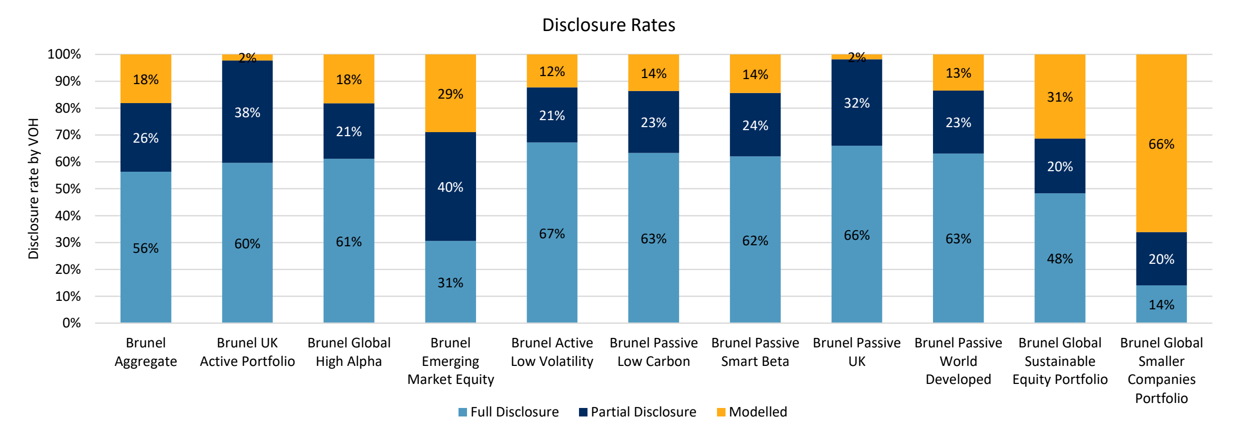
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

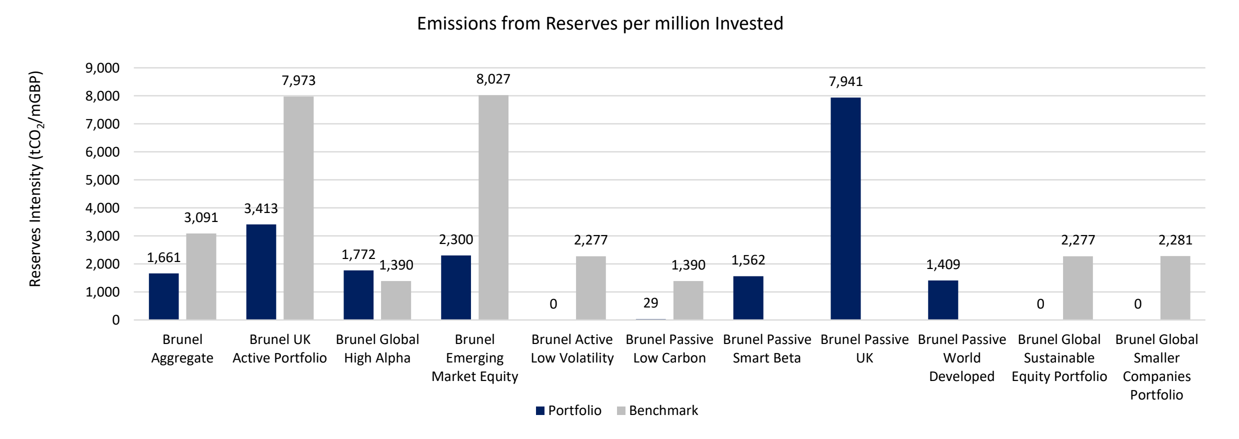
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

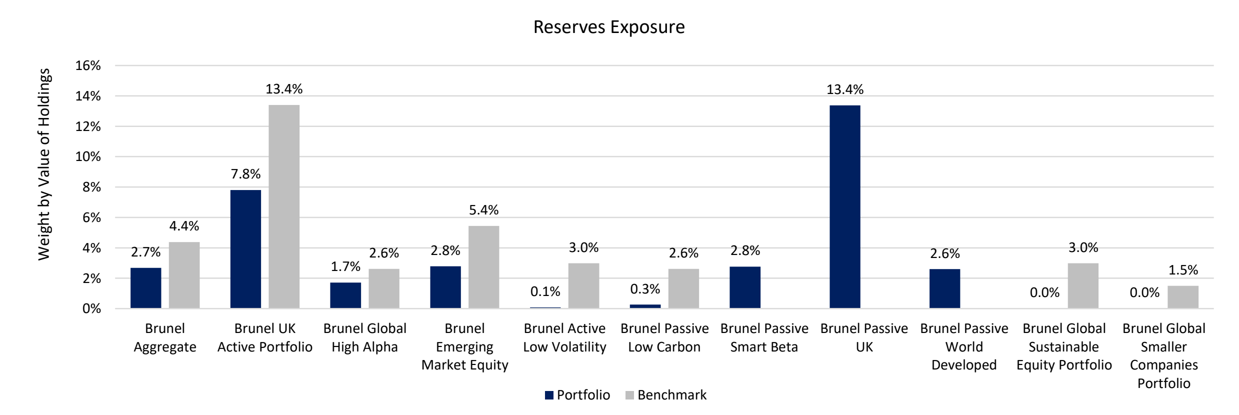
Brunel Pension Partnership

Summary Sheet **Holdings as at 31st December 2020**





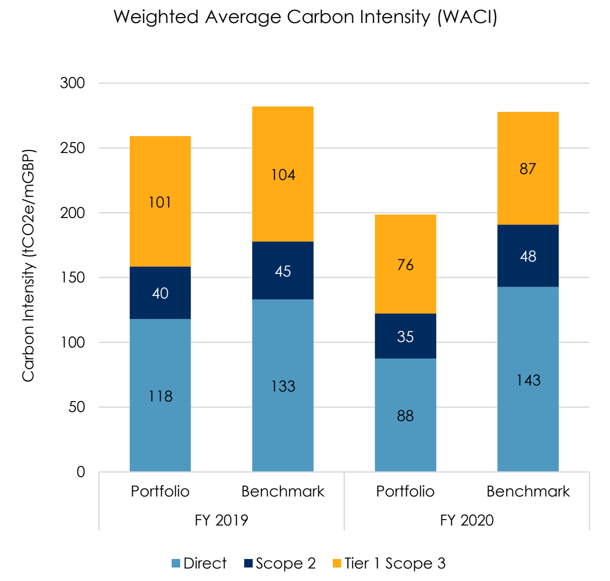


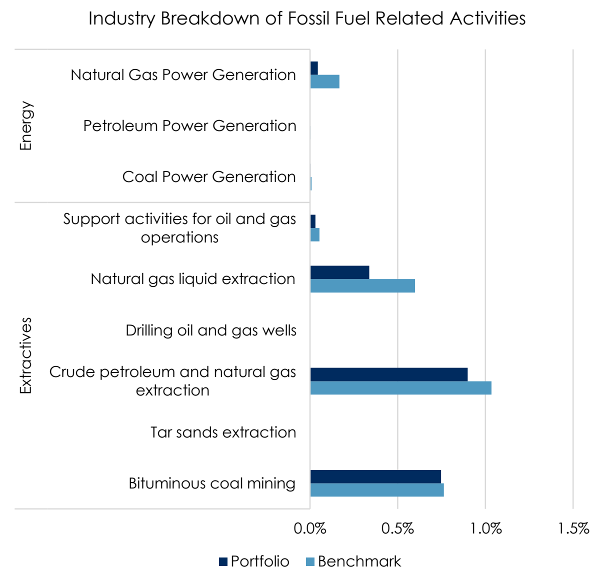


Brunel Pension Partnership

Brunel UK Active Portfolio vs. FTSE All Share Ex-IT

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

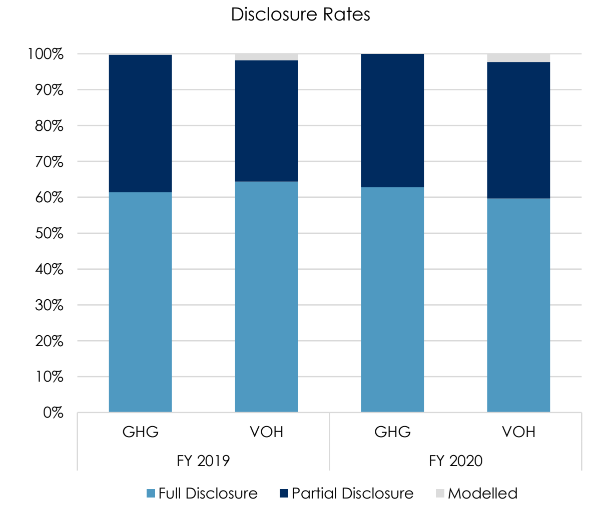
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
Rio Tinto Group	965	4.20%	-16.91%
Mondi PLC	2,704	0.88%	-11.24%
Tate & Lyle plc	2,366	0.77%	-8.43%
BHP Group	561	3.63%	-6.88%
Royal Dutch Shell PLC	614	2.82%	-6.08%

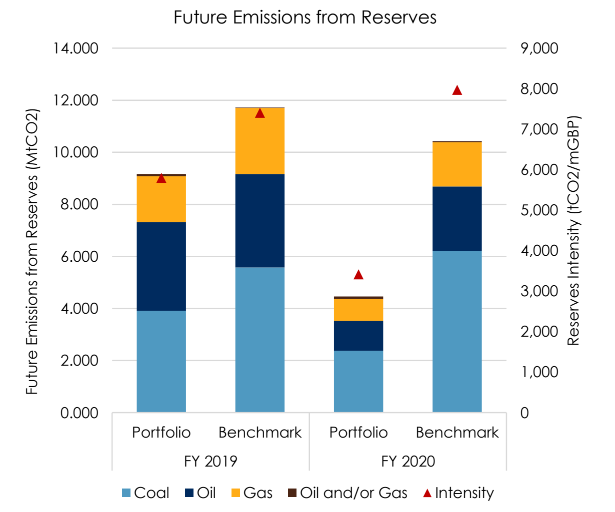
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Royal Dutch Shell PLC	2.82%	1,134
BHP Group	3.63%	420
BP p.l.c.	0.98%	378
SSE plc	0.21%	3
EnQuest PLC	0.10%	1

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	63%	60%
Partial Disclosure	37%	38%
Modelled	0%	2%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	3.91	5.58	2.37	6.21
Oil	3.40	3.58	1.15	2.48
Gas	1.77	2.54	0.83	1.70
Oil and/or Gas	0.08	0.01	0.10	0.04

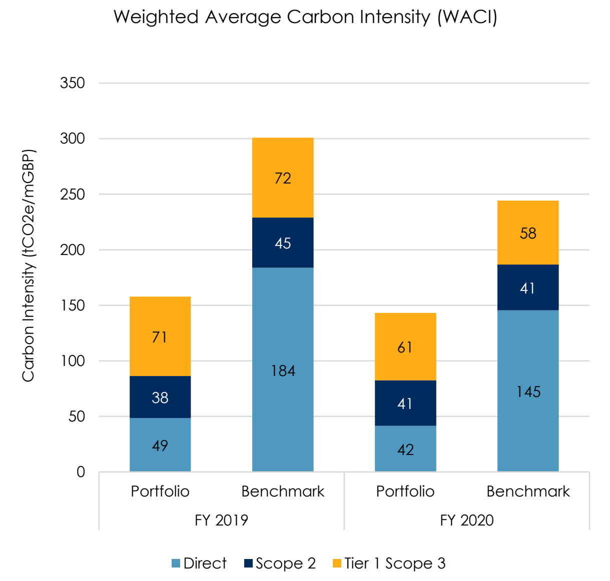
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

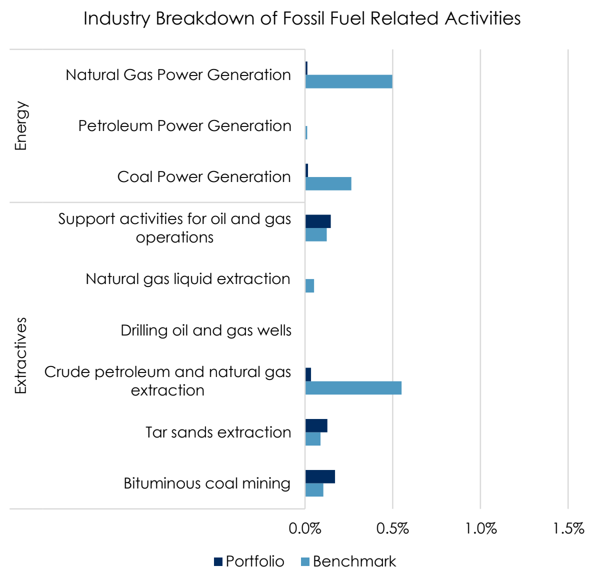
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Global High Alpha vs. MSCI World

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

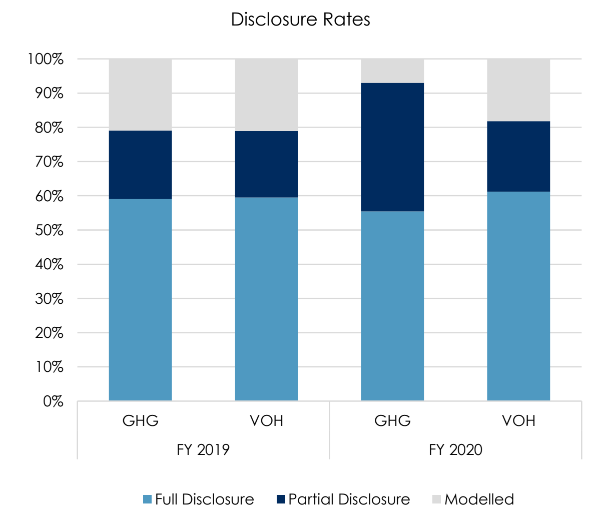
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
LafargeHolcim Ltd	6,862	0.15%	-7.18%
Nestle SA	545	1.93%	-5.51%
Steel Dynamics, Inc.	1,043	0.74%	-4.67%
Taiwan Semiconductor Manufacturing	407	2.15%	-4.05%
Anglo American Plc	870	0.76%	-3.88%

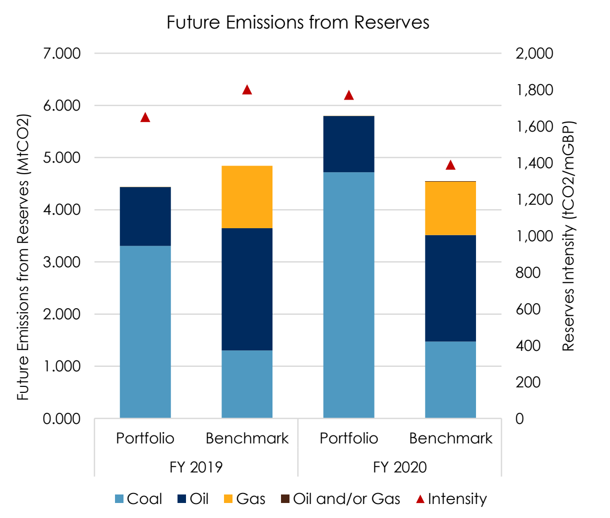
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Berkshire Hathaway Inc.	0.94%	56
Glencore Plc	0.59%	44
Suncor Energy Inc.	0.37%	37
Anglo American Plc	0.76%	34
Halliburton Company	0.15%	26

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	55%	61%
Partial Disclosure	38%	21%
Modelled	7%	18%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	3.31	1.30	4.72	1.47
Oil	1.13	2.34	1.08	2.04
Gas	0.00	1.20	0.00	1.02
Oil and/or Gas	0.00	0.00	0.00	0.01

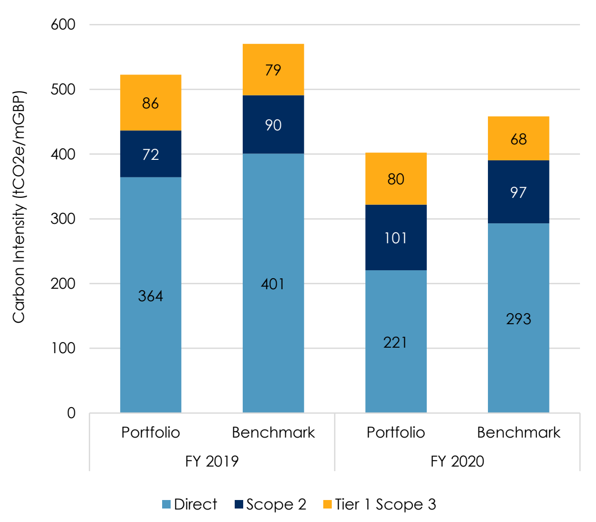
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

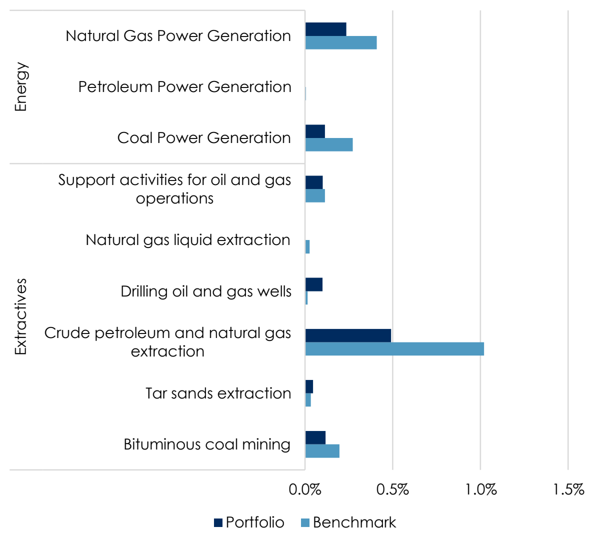
Brunel Pension Partnership

Brunel Emerging Market Equity vs. MSCI Emerging Markets — **Holdings as at 31st December 2020**

Weighted Average Carbon Intensity (WACI)



Industry Breakdown of Fossil Fuel Related Activities



Current Year Top Contributors to WACI

Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
PT Semen Indonesia (Persero) Tbk	14,209	0.56%	-19.37%
Anhui Conch Cement Company Limite	11,690	0.23%	-6.60%
China Longyuan Power Group Corporc	3,251	0.68%	-4.87%
PT Indocement Tunggal Prakarsa Tbk	14,923	0.13%	-4.76%
Ternium S.A.	3,651	0.27%	-2.20%

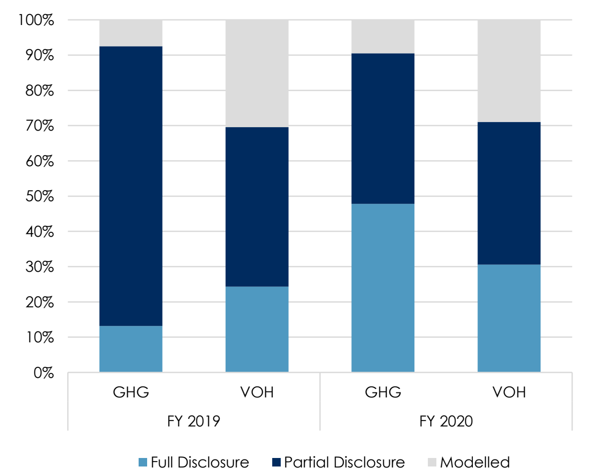
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

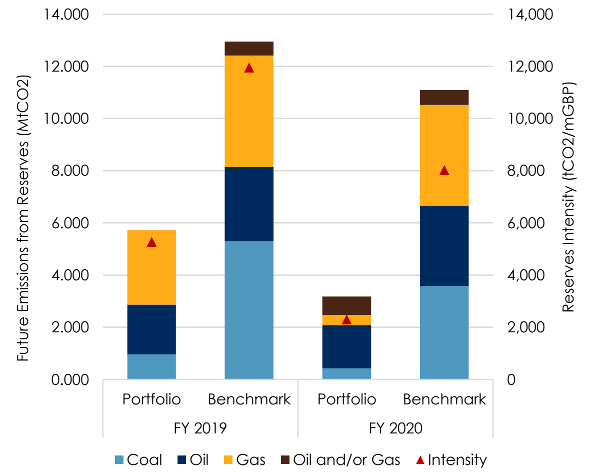
Name	Weight (%)	Weighted FF Revenue (mGBP)
Petrobras SA	0.88%	218
PJSC LUKOIL	0.37%	125
Public Joint Stock Company F	0.12%	63
CNOOC Limited	0.24%	56
Anglo American Plc	0.58%	26

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.

Disclosure Rates



Future Emissions from Reserves



Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	48%	31%
Partial Disclosure	43%	40%
Modelled	9%	29%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	0.96	5.29	0.43	3.58
Oil	1.91	2.84	1.66	3.08
Gas	2.84	4.28	0.39	3.86
Oil and/or Gas	0.00	0.53	0.71	0.57

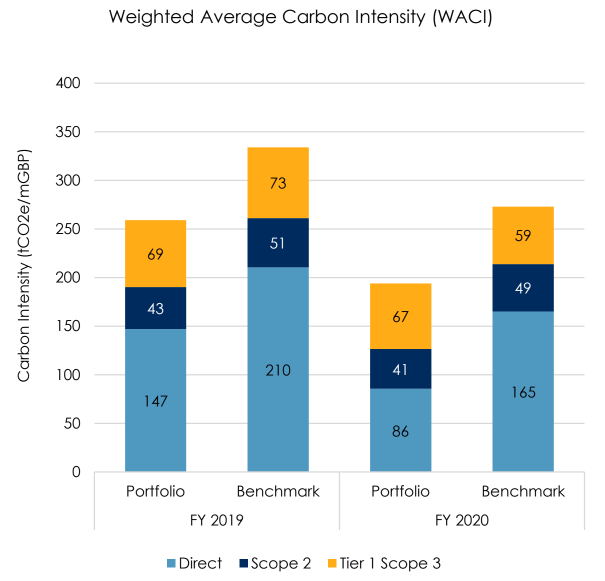
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

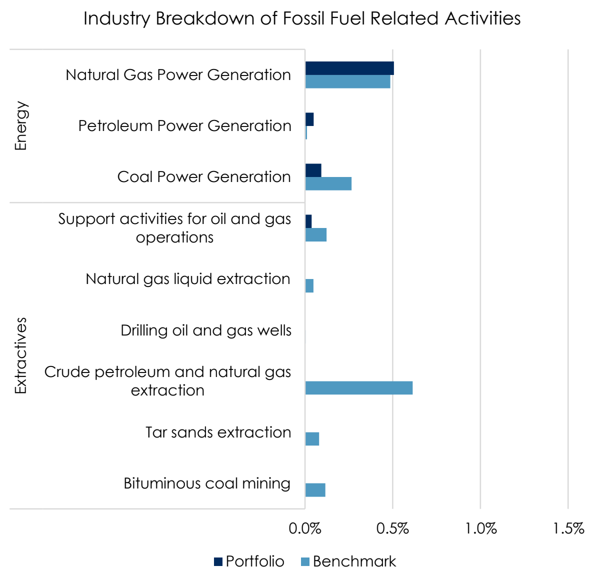
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Active Low Volatility vs. MSCI ACWI

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

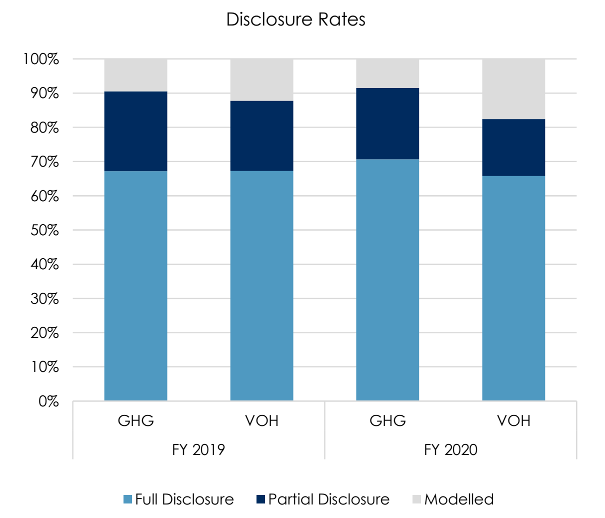
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
Public Service Enterprise Group Incorpc	1,930	0.70%	-6.34%
NextEra Energy, Inc.	3,169	0.35%	-5.40%
Fortis Inc.	2,572	0.25%	-3.07%
Nestle SA	545	1.65%	-3.04%
Waste Management, Inc.	2,372	0.21%	-2.41%

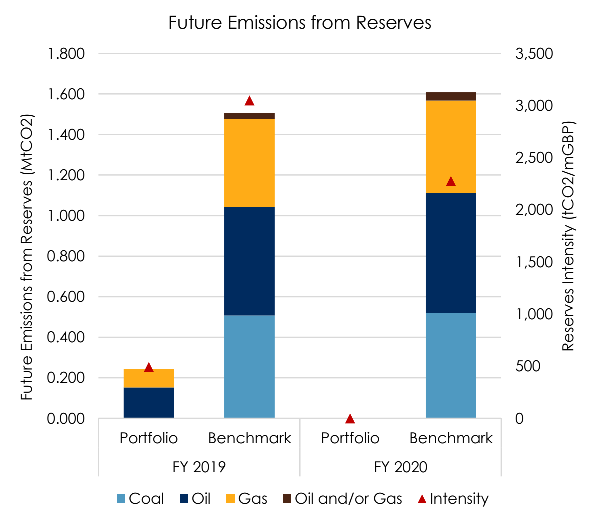
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
NextEra Energy, Inc.	0.35%	26
Iberdrola, S.A.	0.65%	23
Endesa, S.A.	0.25%	12
Tokyo Gas Co.,Ltd.	0.24%	10
Public Service Enterprise Grou	0.70%	10

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	71%	66%
Partial Disclosure	21%	17%
Modelled	9%	18%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	0.00	0.51	0.00	0.52
Oil	0.15	0.54	0.00	0.59
Gas	0.09	0.43	0.00	0.46
Oil and/or Gas	0.00	0.03	0.00	0.04

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

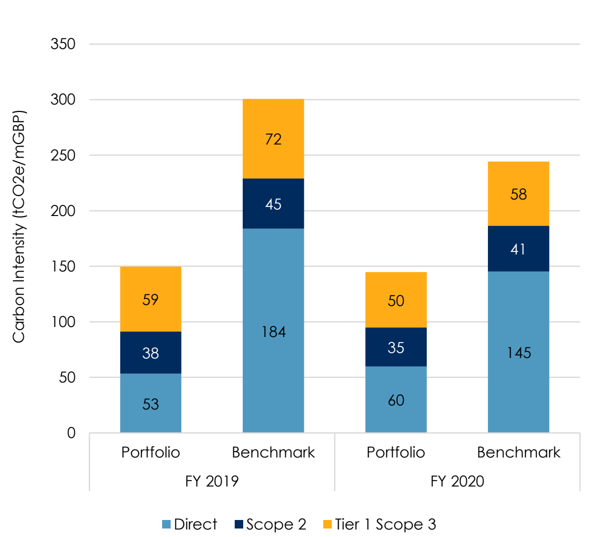
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

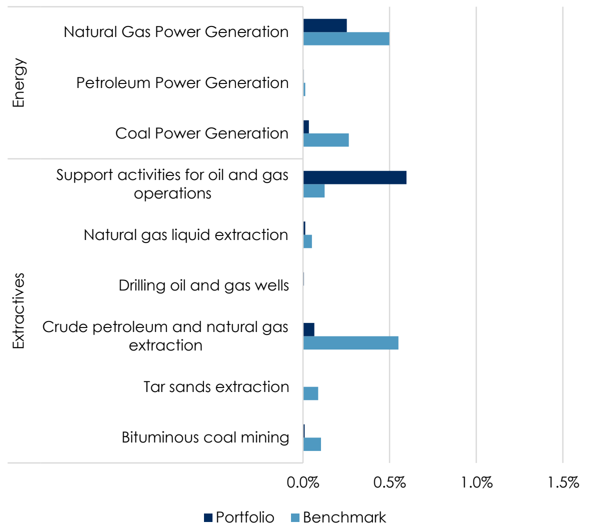
Brunel Passive Low Carbon vs. MSCI World

Holdings as at 31st December 2020

Weighted Average Carbon Intensity (WACI)



Industry Breakdown of Fossil Fuel Related Activities



Current Year Top Contributors to WACI

Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
NextEra Energy, Inc.	3,169	0.32%	-6.66%
Linde plc	1,746	0.28%	-3.09%
Dominion Energy, Inc.	2,750	0.13%	-2.43%
Nestle SA	545	0.67%	-1.87%
Air Products and Chemicals, Inc.	3,996	0.06%	-1.50%

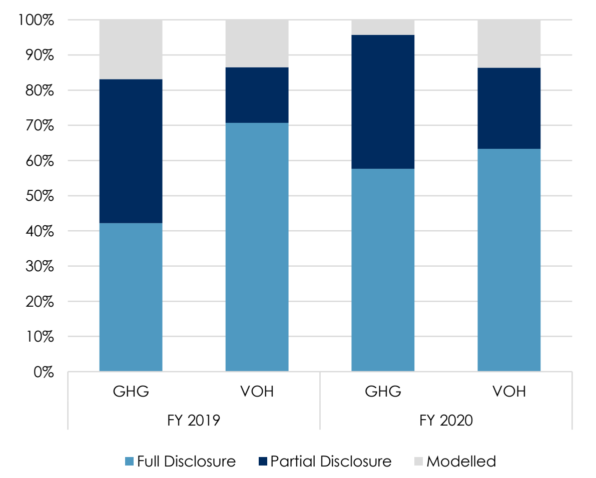
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

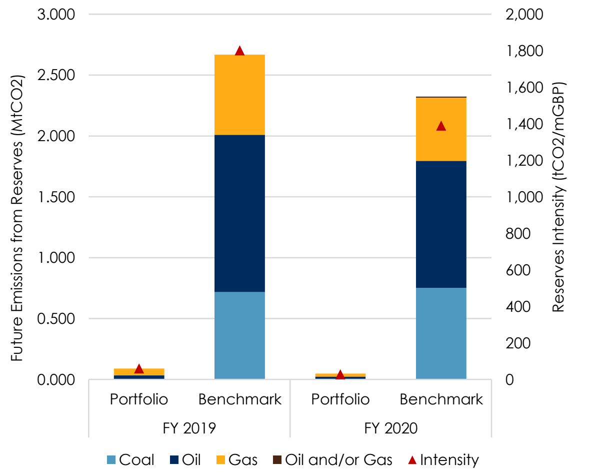
Name	Weight (%)	Weighted FF Revenue (mGBP)
Schlumberger Limited	0.48%	103
Berkshire Hathaway Inc.	0.62%	36
Halliburton Company	0.15%	27
NextEra Energy, Inc.	0.32%	24
Mitsui & Co., Ltd.	0.18%	13

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.

Disclosure Rates



Future Emissions from Reserves



Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	58%	63%
Partial Disclosure	38%	23%
Modelled	4%	14%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	0.00	0.72	0.00	0.75
Oil	0.03	1.29	0.02	1.04
Gas	0.06	0.66	0.02	0.52
Oil and/or Gas	0.00	0.00	0.00	0.01

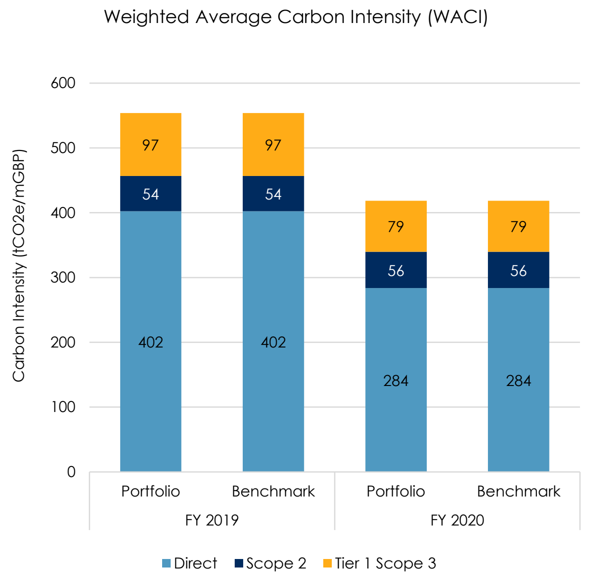
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

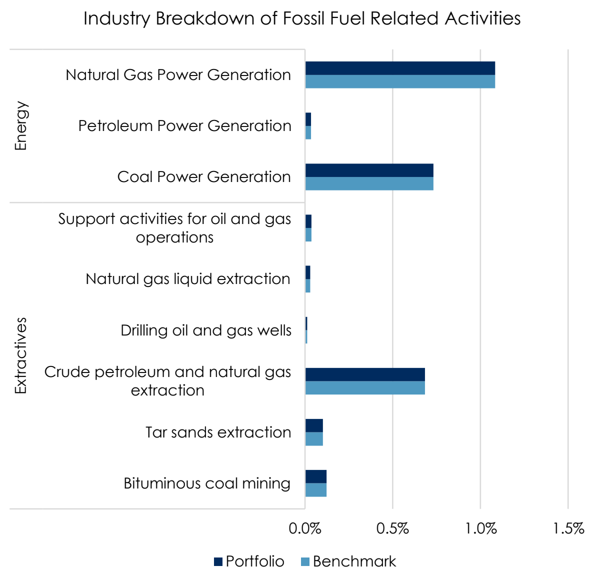
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Passive Smart Beta

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

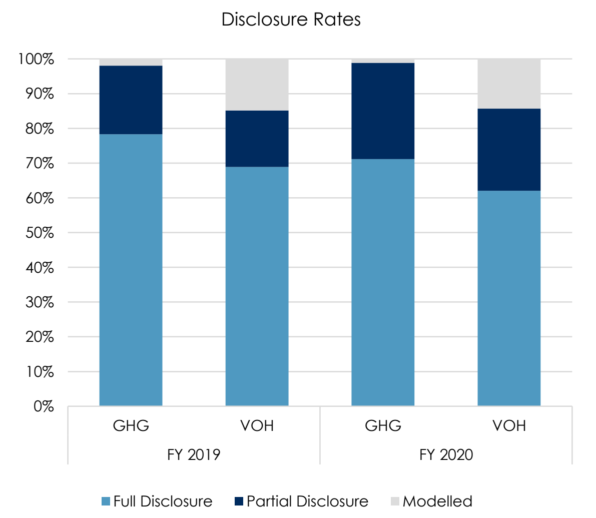
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
The Southern Company	5,873	0.43%	-5.63%
American Electric Power Company, Inc	6,885	0.33%	-5.05%
Duke Energy Corporation	4,655	0.44%	-4.43%
Ameren Corporation	5,685	0.31%	-3.93%
Xcel Energy Inc.	5,312	0.32%	-3.81%

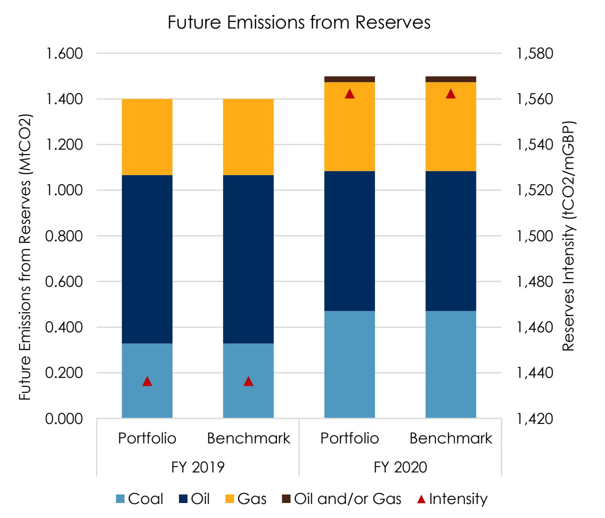
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Chevron Corporation	0.35%	86
Exxon Mobil Corporation	0.42%	76
ConocoPhillips	0.19%	49
Duke Energy Corporation	0.44%	43
Berkshire Hathaway Inc.	0.55%	33

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	71%	62%
Partial Disclosure	28%	24%
Modelled	1%	14%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

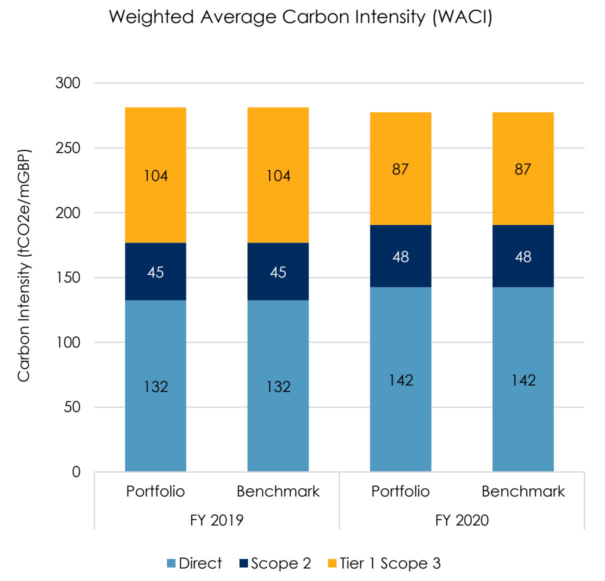
Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	0.33	0.33	0.47	0.47
Oil	0.74	0.74	0.61	0.61
Gas	0.33	0.33	0.39	0.39
Oil and/or Gas	0.00	0.00	0.03	0.03

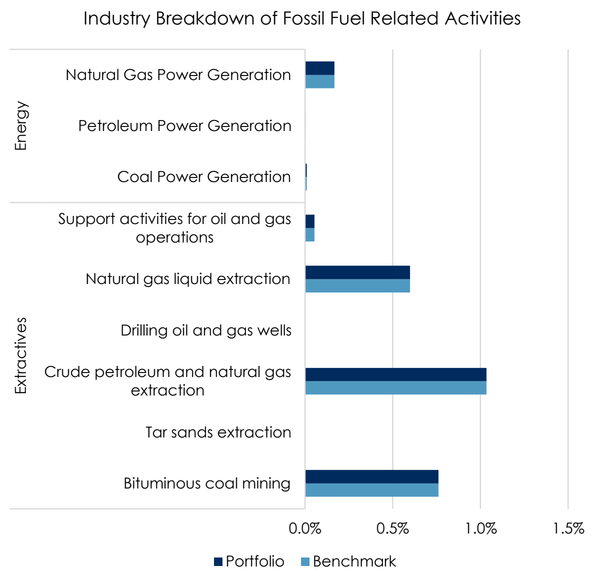
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Passive UK | **Holdings as at 31st December 2020**





Current Year Top Contributors to WACI

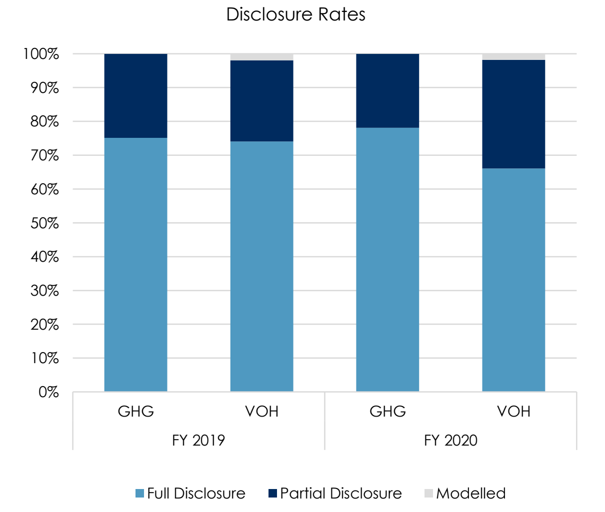
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
Rio Tinto Group	965	2.95%	-7.53%
CRH Plc	1,987	1.19%	-7.43%
Royal Dutch Shell PLC	614	4.97%	-6.35%
Mondi PLC	2,704	0.41%	-3.63%
Anglo American Plc	870	1.48%	-3.21%

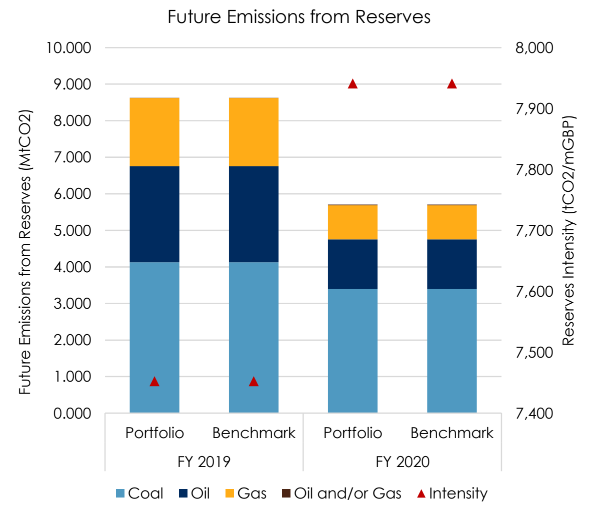
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Royal Dutch Shell PLC	4.97%	1,998
BP p.l.c.	2.51%	968
BHP Group	1.99%	230
Glencore Plc	1.25%	92
Anglo American Plc	1.48%	67

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	78%	66%
Partial Disclosure	22%	32%
Modelled	0%	2%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	4.12	4.12	3.39	3.39
Oil	2.63	2.63	1.36	1.36
Gas	1.87	1.87	0.93	0.93
Oil and/or Gas	0.01	0.01	0.02	0.02

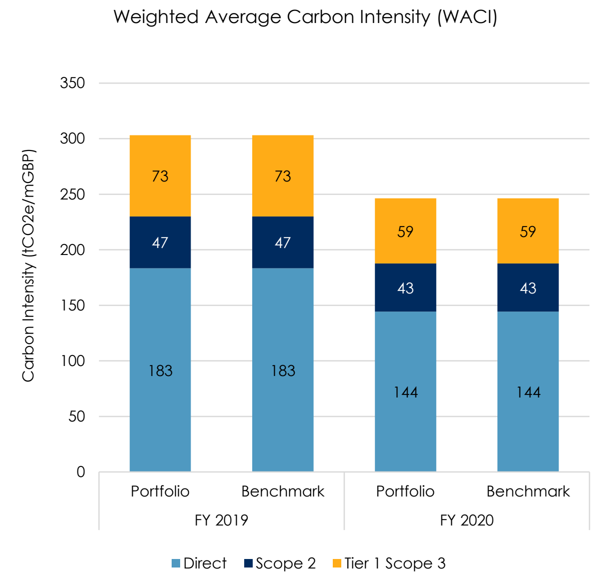
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

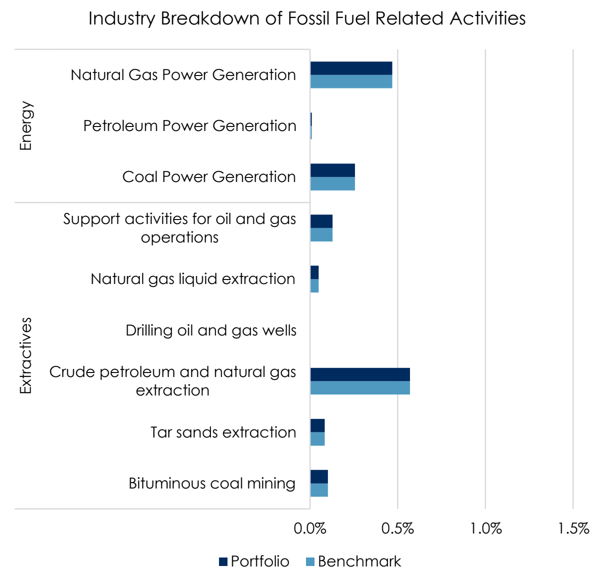
The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Passive World Developed

Holdings as at 31st December 2020





Current Year Top Contributors to WACI

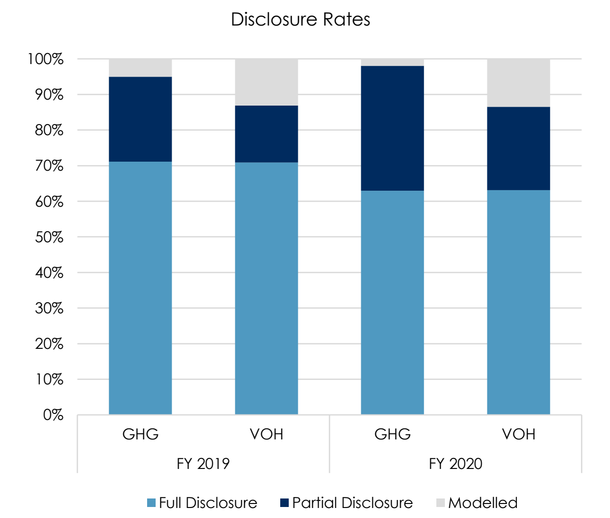
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
NextEra Energy, Inc.	3,169	0.29%	-3.46%
The Southern Company	5,873	0.12%	-2.85%
Duke Energy Corporation	4,655	0.13%	-2.32%
American Electric Power Company, Inc	6,885	0.08%	-2.14%
Air Products and Chemicals, Inc.	3,996	0.12%	-1.77%

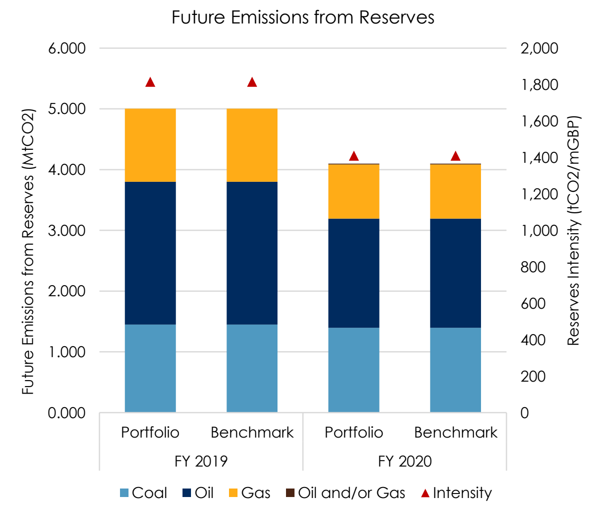
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Royal Dutch Shell PLC	0.26%	106
Chevron Corporation	0.31%	78
Exxon Mobil Corporation	0.34%	61
BP p.l.c.	0.13%	51
Berkshire Hathaway Inc.	0.85%	50

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	63%	63%
Partial Disclosure	35%	23%
Modelled	2%	13%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

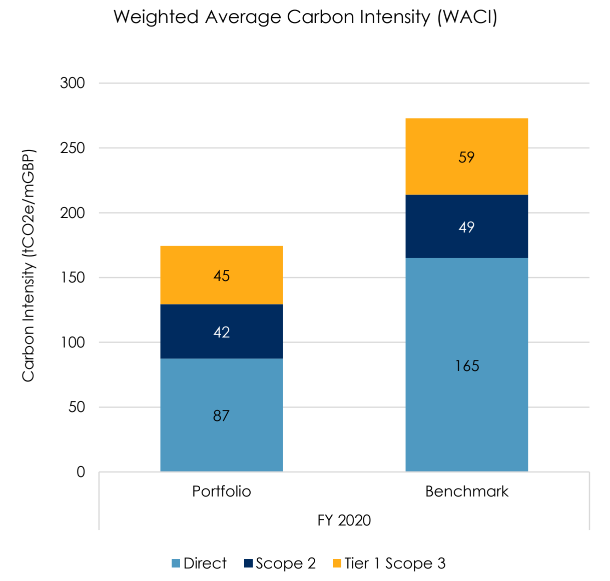
Source	FY 2019 Port.	FY 2019 Ben.	FY 2020 Port.	FY 2020 Ben.
Coal	1.45	1.45	1.40	1.40
Oil	2.35	2.35	1.80	1.80
Gas	1.21	1.21	0.89	0.89
Oil and/or Gas	0.00	0.00	0.01	0.01

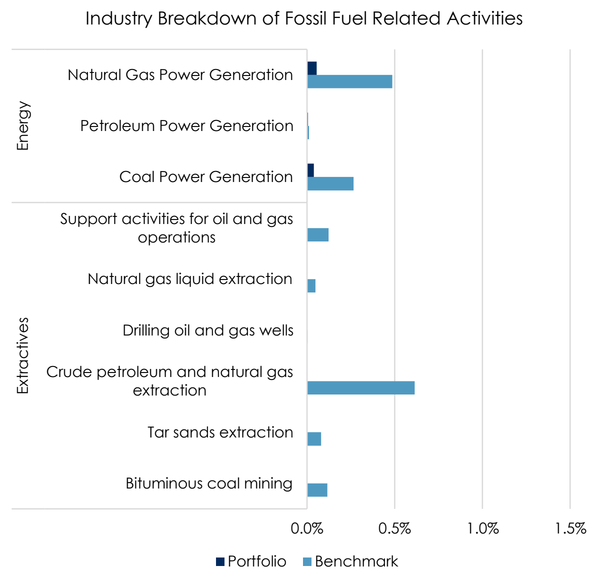
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Global Sustainable Equity Portfolio vs. MSCI ACWI **Holdings as at 31st December 2020**





Current Year Top Contributors to WACI

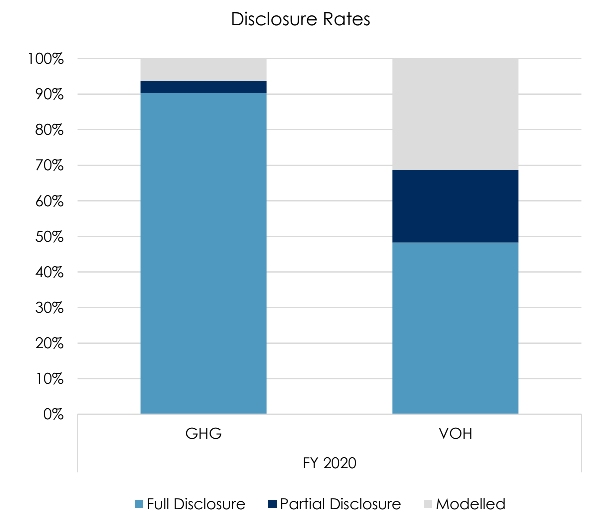
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
Republic Services, Inc.	2,711	0.62%	-9.10%
Waste Management, Inc.	2,372	0.62%	-7.87%
Linde plc	1,746	0.80%	-7.31%
Orsted	773	1.44%	-5.02%
InterContinental Hotels Group Plc	953	0.86%	-3.87%

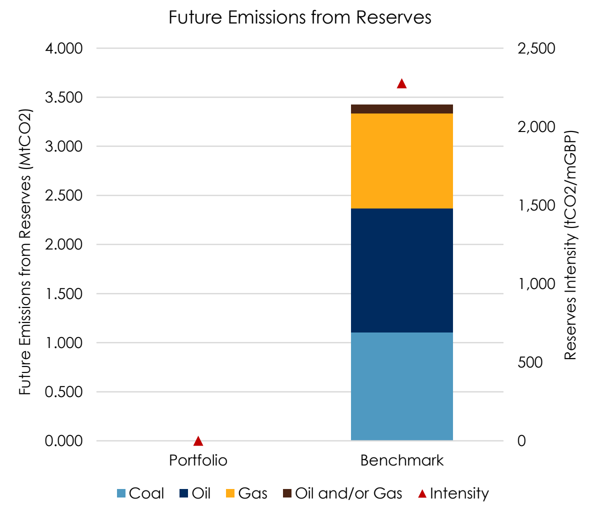
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
Enel SpA	0.45%	34
Orsted	1.44%	3
L'Air Liquide S.A.	0.40%	2
National Grid PLC	0.30%	1

The **Industry Breakdown of Fossil Fuel Relatred Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	90%	48%
Partial Disclosure	3%	20%
Modelled	6%	31%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

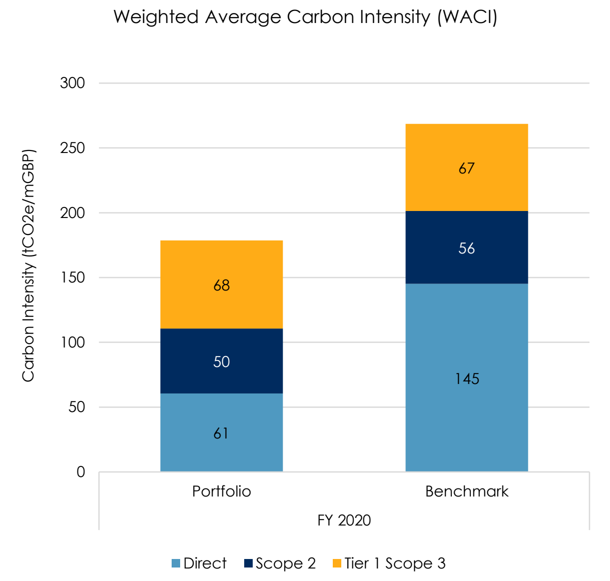
Source	FY 2020 Port.	Ben.
Coal	0.00	1.11
Oil	0.00	1.26
Gas	0.00	0.97
Oil and/or Gas	0.00	0.09

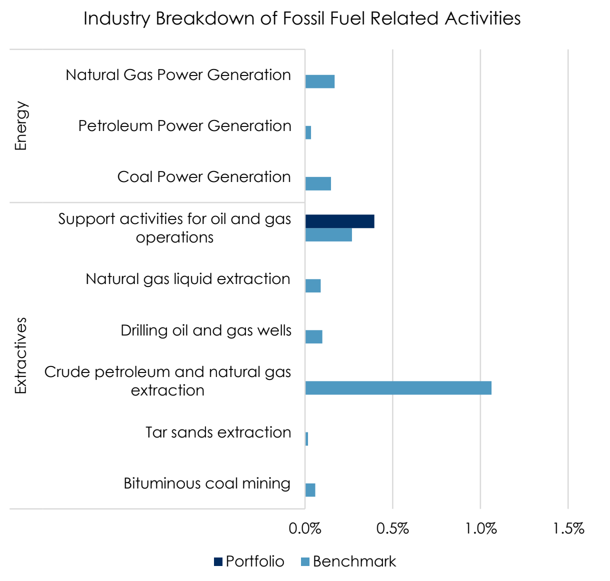
Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

Brunel Global Smaller Companies Portfolio vs. MSCI World Small Cap **Holdings as at 31st December 2020**





Current Year Top Contributors to WACI

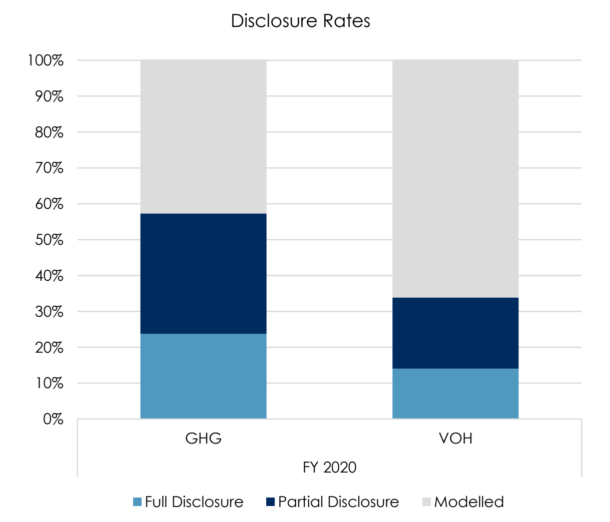
Name	Carbon-to-Revenue intensity ($tCO_2e/mGBP$)	Weight (%)	Contr. (%)
Befesa S.A.	1,253	0.79%	-4.79%
Marshalls plc	1,134	0.78%	-4.19%
Cabot Corporation	1,933	0.37%	-3.63%
NEXTDC Limited	2,130	0.28%	-3.02%
Kronos Worldwide, Inc.	941	0.66%	-2.81%

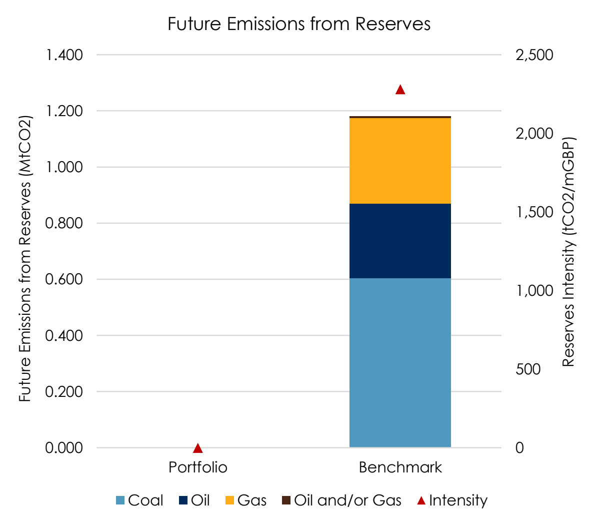
The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (mGBP)
TGS-NOPEC Geophysical Cor	0.39%	2
Clean Harbors, Inc.	0.23%	0
Seven Group Holdings Limitec	0.40%	0

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.





Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	24%	14%
Partial Disclosure	34%	20%
Modelled	43%	66%

Full Disclosure - Data disclosed by a company in an un-edited form.
Partial Disclosure - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
Modelled - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Future Emissions from Reserves by Type ($MtCO_2$)

Source	FY 2020 Port.	Ben.
Coal	0.00	0.60
Oil	0.00	0.27
Gas	0.00	0.30
Oil and/or Gas	0.00	0.01

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO2 from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

Brunel Pension Partnership

2021

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