

Appendix 1: Carbon risk exposure

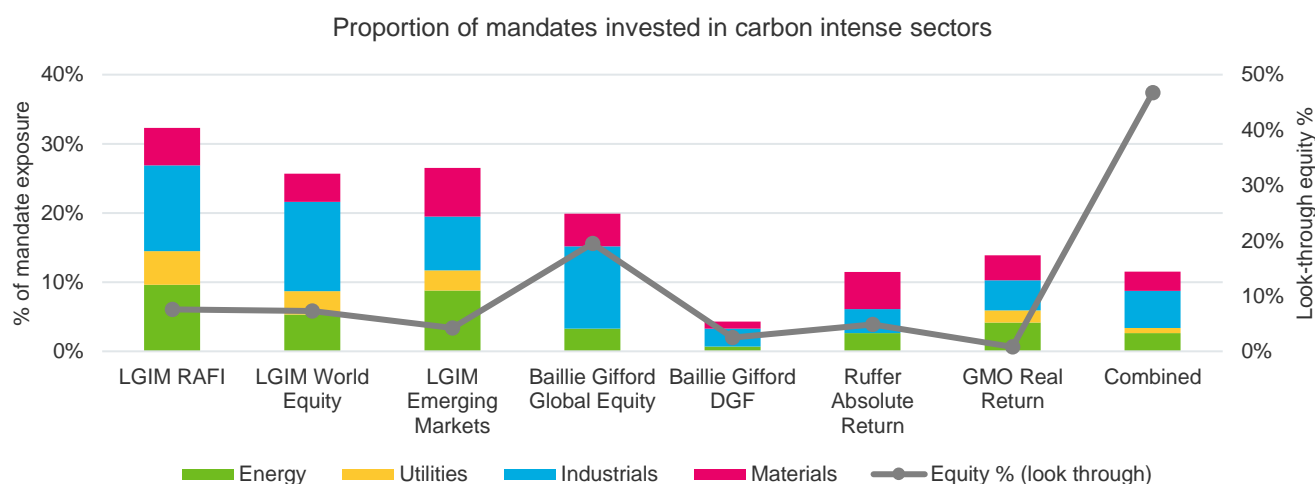
Pension funds are being increasingly challenged to both recognise and then address the risks of climate change within their investment arrangements. Climate risk was described by Mark Carney as comprising three elements:

- Physical risk i.e. damage to real assets such as property or agricultural yields arising from changing climate patterns;
- Transition risk, i.e. a loss of financial value arising from the transition to a low carbon economy, and
- Liability risk, i.e. the potential costs arising from claims made against investors and advisers for inaction.

Climate risk is complex given both the timeframe and inherent uncertainties attached to the worldwide human response. However, one key risk arises from policy change which may create unbudgeted costs for businesses and render current business practices unviable. For example, the imposition of a carbon tax to prevent the continued burning of fossil fuels could give rise to stranded assets.

A number of pension funds have sought to understand their exposure to carbon risk by measuring a “carbon footprint”, those holdings within equity portfolios which have the highest level of carbon emissions and/or carbon intensity (i.e. carbon emissions per unit sales). This generally reveals companies in four sectors – Energy (which comprises both Coal and Oil & Gas), Materials, Industrials and Utilities.

Whilst we haven’t undertaken such an exercise, the chart below details the exposure to the most carbon intensive sectors from each mandate incorporating exposure to equity markets as at 30 June 2019 as an indication of potential risk. Non-equity mandates have been excluded for this purpose.



Source: Investment managers

On a look through basis, around 12% of the Fund’s equity exposure is invested in sectors which are more directly exposed to carbon risk. Index-tracking mandates have greater exposure with the RAFI fund being more exposed to carbon-intensive sectors than the World Equity fund due to its value bias.

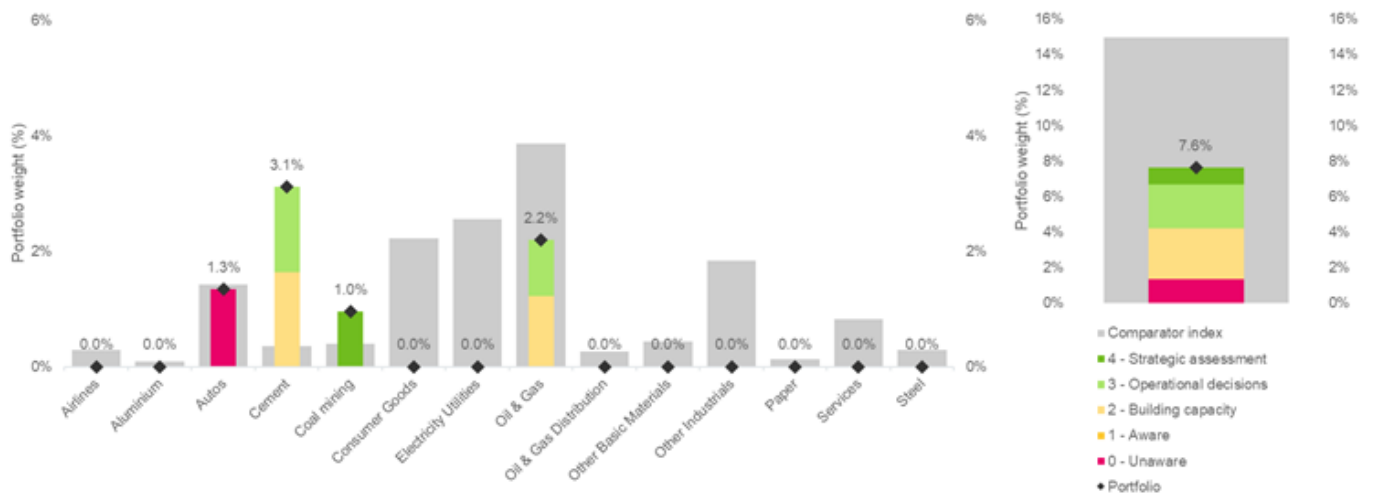
The Committee retains control over the Fund’s exposure to carbon-intensive sectors via the index-tracking mandates, whilst Baillie Gifford, and the multi-asset managers are responsible for the management of this exposure within their respective mandates.

Transition Pathway Initiative (“TPI”)

The TPI is aimed at investors and assesses companies’ preparedness for the transition to a low-carbon economy, supporting efforts to address climate change. The TPI’s free to use tool enables the assessment of companies’ carbon management quality and carbon performance, within a selected sector.

From the Fund’s perspective, the TPI tool can be used to identify engagement areas with investment managers, and London CIV, and to gain more in-depth insight into different benchmark indices under consideration.

Using this data, we have analysed the Fund’s active global equity mandate with LCIV (managed by Baillie Gifford) and summarised the outputs in the chart below:



Source: eVestment, TPI

An analysis of Baillie Gifford’s portfolio relative to the MSCI All Countries World Index indicates that:

- Exposure to carbon-intensive sectors is lower than the benchmark;
- The portfolio has a larger allocation to cement and coal mining relative to the benchmark, although the allocation to oil & gas and other sectors is significantly lower;
- TPI’s analysis indicates that companies held in the Autos sector have not fully quantified the extent of risks associated with the transition to a lower carbon economy.

Appendix 2: Equities and multi-asset funds

The Fund invested in equities via LGIM and Baillie Gifford mandates as well as multi-asset mandates managed by Baillie Gifford, Ruffer and GMO. The Baillie Gifford and Ruffer mandates are delivered via LCIV, whilst the LGIM mandates are aligned with LCIV. Total investments in equities represented c. 47% of Fund assets as at 30 June 2019 on a look through basis. An overview of each of the managers is included in the Appendix to this report.

Compliance with industry governance standards

All of the investment managers permitted to invest in equities on behalf of the Fund (with the exception of GMO) are Tier 1 signatories to the UK Stewardship Code and signatories to the PRI. GMO is a relatively new signatory to the PRI and has not yet received an assessment. The first such assessment is expected to be undertaken in 2020. We have summarised relevant scores from the 2019 PRI assessment for the other managers below:

Assessment	LGIM	Baillie Gifford	Ruffer	GMO
Strategy & Governance	A+	A+	A+	n/a
Listed Equity - Incorporation	A	A	A	n/a
Listed Equity - Active Ownership	A+	A	A	n/a

Source: Investment managers

Voting and engagement

Each of the Fund's equity (and multi-asset) managers invest in shares in underlying companies. Attached to the ownership of shares is the right to vote on a range of resolutions at company AGM's. Analysis of voting statistics can provide insight in terms of the extent to which managers vote for or against resolutions or with or against management.

It should be noted that, as a large asset manager, LGIM votes on a significantly larger number of resolutions than Fund's other managers. In particular, LGIM voted on 98,480 resolutions over the year to 30 June 2019. The following information should therefore be considered in this context.

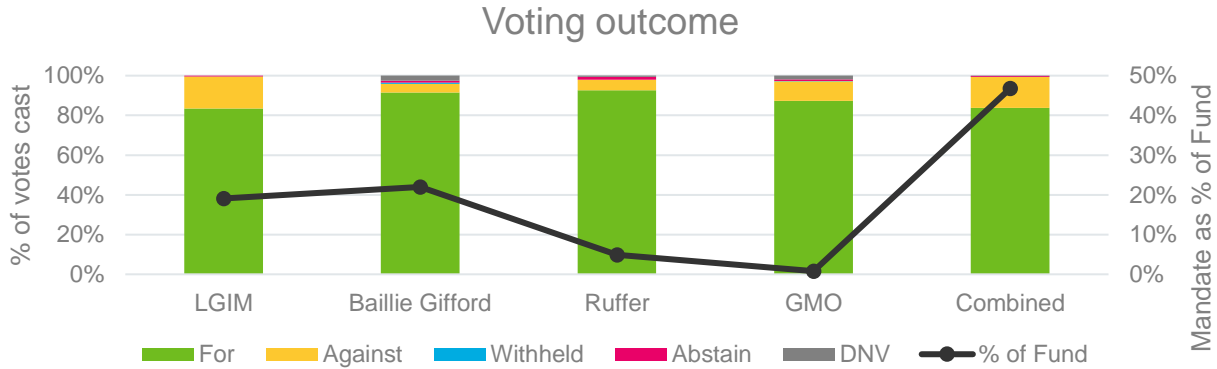
We note that LCIV arranges for appointed managers to vote in accordance with voting alerts issued by the Local Authority Pension Fund Forum ("LAPFF") (of which the Council is a member) as far as practically possible to do so and will hold managers to account where they have not voted in accordance with LAPFF directions. We are not aware of any instances where concerns have developed around the voting practices of the Fund's managers accessed via LCIV.

For reference, a copy of LAPFF's 2019 annual report, which summarises voting alerts issued in 2019, can be found at the link below:

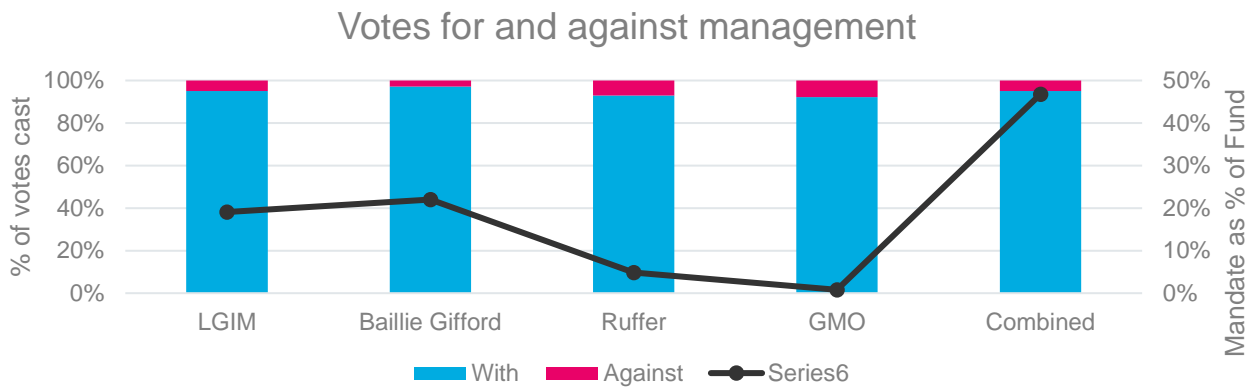
<http://www.lapfforum.org/wp-content/uploads/2018/12/LAPFF-Annual-Report-2019.pdf>

Voting outcome

The following chart illustrates how each of the Fund’s equity (and multi-asset) managers voted shares on behalf of the Fund in the year to 30 June 2019:



Votes for and against management



Engagement activity

LGIM

LGIM’s Corporate Governance team’s objective is to raise the standards of the companies and markets in which they invest on behalf of their clients. During the year, LGIM focussed on a range of issues through engagement with companies, including sustainability, executive pay and diversity.

LGIM’s active ownership report sets out full details of the work undertaken <http://update.lgim.com/activeowner>.

Baillie Gifford

Baillie Gifford published their [2019 governance and sustainability principles and guidelines](#) earlier this year. Baillie Gifford produced their first annual governance and sustainability report, including a summary of the engagements undertaken during the year. These included:

- Engagement with Tesla on remuneration and proposals to take the company into private ownership
- Engagement with Amazon on working conditions, and the company’s plans for future sustainability development.

Appendix 3: Real Assets

The Fund invested in real assets via UBS and CBRE (property) and JP Morgan and Stafford (infrastructure). Total investments in real assets represented c. 15% of Fund assets as at 30 June 2019. An overview of each of the managers is included in the Appendix to this report.

Compliance with industry governance standards

All of the Fund's real assets managers are signatories to the PRI. As part of their 2019 assessments, PRI considered signatories relative to a full range of investment capabilities. We have summarised relevant scores below for the Fund's real assets managers:

Assessment	UBS	CBRE	JP Morgan	Stafford
Strategy & Governance	A+	A+	A+	A
Property / Infrastructure	A+	A	A	A

Source: Investment managers

External ratings

GRESB is an independent organisation that assesses the sustainability of performance from real estate and infrastructure portfolios worldwide. Annual assessments consider a range of areas including management, policy and disclosure, risks and opportunities, monitoring, performance data, building certifications and stakeholder engagement. The following table summarises the 2019 assessments for each of the Fund's real assets managers:

Assessment	UBS	CBRE	JP Morgan	Stafford
GRESB ranking relative to peers	1 / 79	77 / 100	5 / 28	<i>Not reported</i>

Sustainable investment

Sustainable investment can be measured in a range of ways. In recent years, UBS have provided information below in relation to environmental figures relating to energy, water and waste usage within assets held in the Triton property portfolio. At this time, equivalent information is not readily available from the Fund's other real assets managers.

Assessment (most recent available)	UBS	CBRE	JP Morgan	Stafford
Number of underlying assets	31	1,908	439	207
Total energy consumed (MWh) per asset	308	2,331	4,168	<i>Not reported</i>
Total waste produced (tonnes) per asset	14.8	12.6	<i>Not reported</i>	<i>Not reported</i>
Total water usage (m ³) per asset	2,110	1,538	484,357	<i>Not reported</i>

Source: UBS, CBRE, JP Morgan

Stafford's infrastructure portfolio consists of 207 underlying assets across 10 underlying funds. Whilst Stafford do not currently report on the information outlined above, they are considering doing so in future.

Appendix 4: Bonds

The Fund invested in bonds via the Royal London aggregate bond mandate, representing c. 18% of Fund assets as at 30 June 2019. An overview of Royal London is included in the Appendix to this report. The Fund has more recently invested assets in private debt funds managed by Churchill and Permira and our report for the year ending 30 June 2019 will also include these managers.

Compliance with industry governance standards

Royal London is a signatory to the PRI. As part of their 2019 assessment, PRI considered Royal London's full range of investment capabilities. We have summarised relevant scores below:

Assessment	Manager score	Median
Strategy & Governance	A	A
Fixed Income - SSA	A	B
Fixed Income – Corporate Financial	A	B
Fixed Income – Corporate Non Fin	A	B
Fixed Income - Securitised	A	C

Source: Royal London

Engagement activity

Royal London are not equity owners in relation to the Fund's investment in the fixed income mandate, therefore there are no attaching voting issues.

However, Royal London is responsible for the promotion of good corporate governance and consideration for broader ESG matters to the extent these impact on the value of the Fund's investment as bond holders.

As reported last year, Royal London set out in their 2017 Social Responsibility Report how they are raising awareness of ESG issues within the company and how they plan to continue this into the future. Royal London have published their 2019 [Stewardship Statement](#), and [Stewardship Activity](#) report online. The Stewardship Activity report includes a number of examples of Royal London's engagement within the fixed income asset class. For example, Royal London engaged with Akelius (Akfast) ahead of lending to the company on a number of areas including compensation practices, governance structure and interaction between the charity and the corporate arms. In addition, Royal London have engaged with the Big 6 energy providers in relation to the energy transition, and conducted research into ESG risks associated with water utilities.