Item 3(b)

5th December 2016

Glasgow City Council

Strathclyde Pension Fund Committee

Report by Director of Strathclyde Pension Fund

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Responsible Investment - Climate Change Strategy

Purpose of Report:

To progress the development of a Climate Change Strategy and present summary findings of:

- carbon footprint analysis of the Fund's listed equities;
- a review of non-exclusion, passive, low carbon investment solutions; and
- an investigation of membership of additional industry forums or initiatives to support engagement work around key issues such as climate change.

Recommendation:

The Committee is asked **to AGREE** that the Fund should:

- review the carbon footprint of its listed equity holdings every two years and investigate the inclusion of other asset classes;
- use this data to progress engagement;
- join the Institutional Investors Group on Climate Change (IIGCC); and
- continue to monitor development of low carbon investment approaches but not adopt such a strategy at this time.

Ward No(s): Citywide: ✓

Local member(s) advised: Yes ☐ No ☐ consulted: Yes ☐ No ☐

EXECUTIVE SUMMARY

At its meetings in August 2015 and March 2016, the Strathclyde Pension Fund Committee considered reports reviewing the Fund's exposure to carbon and climate change risk, and potential actions to mitigate this.

This report summarises the findings 3 strands of review undertaken on behalf of the committee.

Carbon footprint analysis of the Fund's listed equities.

- As at 31 March 2016 the carbon footprint of the aggregated equity portfolio (excluding smaller companies) was **489**
- This is 7% lower than the carbon footprint of the most widely used global equity benchmark, the MSCI All Country World Index.
- The carbon footprint of the aggregate active equity holdings (excluding smaller companies) is 4.5% lower than that of the MSCI All Country World Index.
- The Fund's aggregate passive equity is 9.6% less carbon intensive than MSCI All Country World Index.
- The carbon footprint analysis is helpful in understanding the main sources of carbon
- It also provides a basis for targeted climate change engagement.
- The exercise should be repeated every 2 years and its scope expanded where possible.

Review of non-exclusion, passive, low carbon investment solutions.

- Officers of the Fund have investigated a range of low carbon investment strategies.
- These may have merit, but they are largely unproven, quality of underlying data is not robust, methodology is often complex, and consultant support is inconclusive.
- They would entail direct investment management cost to the Fund and possibly an indirect cost in terms of performance and risk.
- Development of these approaches should be monitored but not adopted as part of the Fund's strategy at this time.

Investigation of membership of additional industry forums or industry initiatives to support engagement work around key issues such as climate change.

- Officers of the Fund investigated a range of possibilities. The Institutional Investors Group on Climate Change (IIGCC) appeared to be the most appropriate in this context given its exclusive focus on climate change issues. In November officers from the IIGCC presented to the Strathclyde Pension Fund Committee Sounding Board.

- The Fund should join the IIGCC.

1 **Background**

At its meetings in August 2015 and March 2016, the Strathclyde Pension Fund Committee considered reports reviewing the Fund's exposure to carbon and climate change risk, and potential actions to mitigate this.

This report summarises:

- findings of carbon footprint analysis of the Fund's listed equities;
- a review of non-exclusion, passive, low carbon investment solutions; and
- investigation of membership of additional industry forums or industry initiatives to support engagement work around key issues such as climate change.

2 Carbon Footprint Analysis

In order to understand the sources of carbon risk the Fund engaged the leading carbon audit service provider, Trucost, to measure carbon emissions and intensity and provide a carbon footprint of the Fund's listed equity portfolios.

3 Methodology

Carbon footprint analysis quantifies greenhouse gas emissions (GHG) embedded within portfolios using the following methodology:

- GHG emissions are calculated as tonnes of carbon dioxide equivalents (tCO2e) for each portfolio holding
- GHG emissions for each holding are then compared to its annual revenue. This provides a measure of carbon intensity (tCO2e)/£
- this enables comparison between companies, irrespective of size or geography
- Each holding's contribution to the carbon intensity of a portfolio is then calculated on an equity ownership basis
- The carbon footprint of the Fund is the sum of these contributions, normalized by revenue owned
- For purposes of comparison a similar process is followed to provide a carbon footprint for each portfolio's performance benchmark and for market indices.

Further detail of carbon footprinting is included at Appendix A.

It is important to recognise that carbon footprinting methodologies are still evolving and are far from standardized. Emissions data from companies is incomplete, data quality is biased towards larger companies in developed markets and reductions in emissions derived from products and services are not included. It is also true to say that carbon footprinting does not inform investors about physical risks to their portfolios from extreme weather events or their level of exposure to fossil fuel assets that may become stranded in a carbon constrained world.

4 Findings

Trucost has provided a suite of carbon metrics for the Fund's active and passive equity portfolios including measures of absolute carbon emissions,

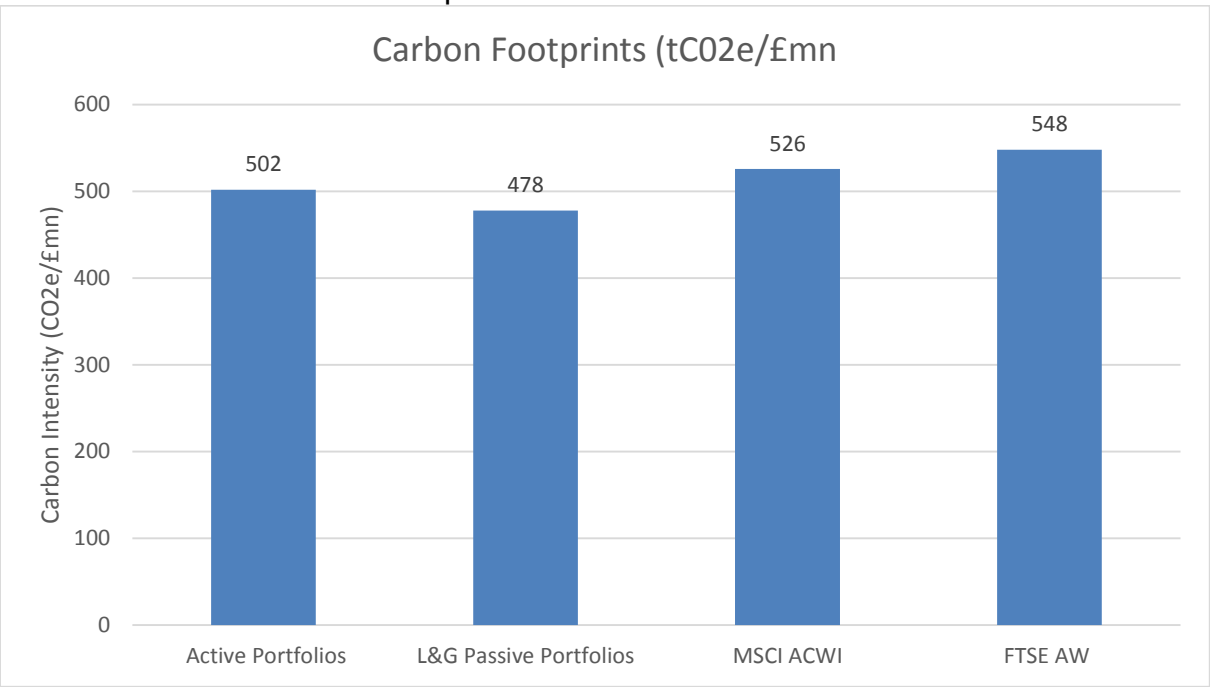
carbon intensity and portfolio attribution. The study has excluded the Fund's two smaller company portfolios due to lack of accurate data on companies and benchmarks.

4.1 Total Listed Equity

The carbon footprint of the aggregated equity portfolio as at 31 March 2016, was **489 (tCO2e/£m).**

The carbon footprint of the aggregate equity holdings is 7% lower than the carbon footprint of the most widely used global equity benchmark, the MSCI All Country World Index. The carbon footprint of the portfolio is 489 compared to the index which is 526.

The chart below contrasts the individual carbon footprints of the Fund's aggregate active and passive equity portfolios with the two most widely used global equity benchmarks, the MSCI All Country World Index and the FTSE All World Index. Both the Fund's active and passive equity portfolios are less carbon intensive than an equivalent value of the two indices.



4.2 Active Equity

The carbon footprint of the aggregate active equity holdings is 4.5% lower than the carbon footprint of the MSCI All Country World Index. The carbon footprint of the portfolio is 502 compared to the index which is 526.

4.2.1 Active Equity Sector Allocation and Stock Selection

The two principal reasons why the carbon exposure of active equity may differ from the benchmark are industrial sector and stock allocation decisions. Sector allocation decisions will cause the carbon intensity of the portfolio to diverge markedly from the benchmark where the sector/s are either carbon intensive or low carbon. If the portfolio is overweight in carbon intensive sectors the portfolio is likely to be more carbon intensive than the benchmark. However, if the stocks within a carbon intensive sector are the most carbon

efficient companies, it is possible that the portfolio may still have a lower carbon footprint than the benchmark.

The active managers' stock selection results in the portfolio being 21.2% more carbon efficient than the benchmark. This is offset by the sector allocation however, which is 16.7% more carbon intensive than the benchmark. In aggregate, the two sectors that have the greatest positive effect on carbon efficiency are Industrial Goods & Services and Utilities, which together contribute 8.42% of the increased carbon efficiency. The Fund has benefitted from an overweight allocation to the relatively carbon efficient Industrial Goods & Services sector and a relative underweight combined with good stock selection in the typically carbon heavy Utilities sector.

The two worst performing sectors in the portfolio, which contribute to 9.1% of reduced carbon efficiency, are Construction & Materials and Banks. Carbon efficiency is impacted by an overweight allocation and weak stock selection in the carbon heavy Construction & Materials sector, and the Fund's underweight position in Banks does not capitalise on this sector's low carbon credentials. It should be noted that the Fund's direct exposure to the Oil & Gas sector contributes a net reduction in carbon intensity through sector allocation and stock selection.

4.2.2 Largest Carbon Contributors to the Active Equity Carbon Footprint

The ten companies that contribute the most to the active equity carbon footprint are shown below. Note that a company may appear due to the proportion owned, rather than because it is the most carbon intensive stock held.

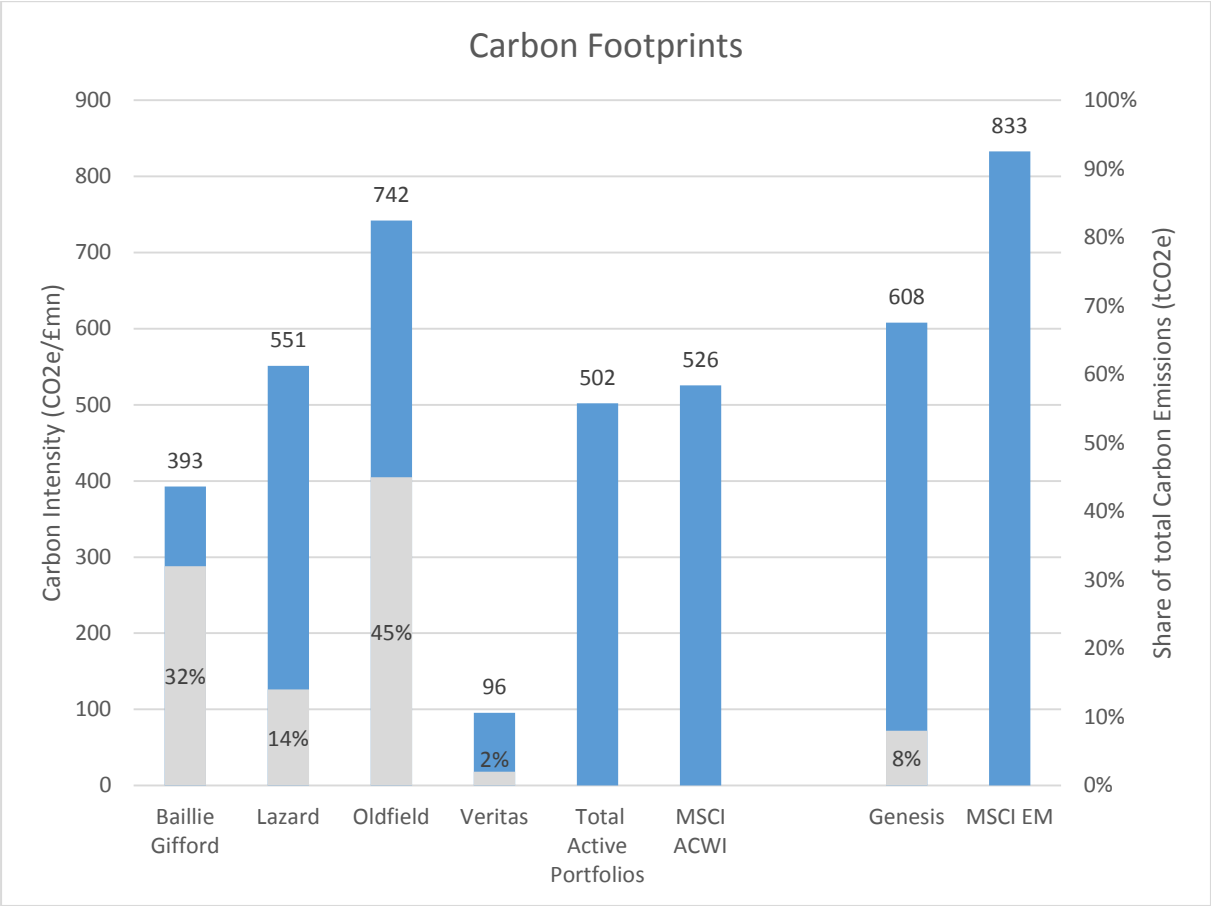
Largest Contributors to Portfolio's Carbon Footprint						
Company Name	Holding (£ mn)	Carbon Apportioned Tonnes	Carbon Apportioned %	Carbon Intensity (tCO2e/£mn)	Carbon Footprint Contribution (%)*	SPF Manager
The Kansai Electric Power Co., Inc.	17.165	211,223	16.46%	3,577	-14.48%	Oldfield Partners
E.ON SE	17.521	154,266	12.02%	1,328	-7.83%	Oldfield Partners
LafargeHolcim Ltd.	15.377	93,452	7.28%	9,680	-6.93%	Baillie Gifford
The AES Corp.	4.614	67,059	5.23%	7,654	-4.90%	Lazard / L&G US Segregated
Rio Tinto Plc	54.083	60,282	4.70%	1,426	-3.09%	Oldfield Partners / Baillie Gifford
Anhui Conch Cement Co., Ltd.	4.212	33,261	2.59%	13,755	-2.50%	Genesis
Ryanair Holdings Plc	49.363	26,714	2.08%	1,937	-1.55%	Baillie Gifford
CRH Plc	27.575	29,087	2.27%	1,137	-1.28%	Baillie Gifford
Oil Co. LUKOIL PJSC	16.501	46,307	3.61%	753	-1.23%	Oldfield Partners
Copa Holdings SA	14.787	19,539	1.52%	1,667	-1.07%	Baillie Gifford
Total	**221.2**	**741,189**	**57.76%**		**-44.88%**	

(*This is a measure of how much a specific holding reduces the carbon intensity of the portfolio)

These ten companies between them contribute 44.88% of the active equity carbon footprint. The two largest contributors to the carbon footprint of the portfolio are The Kansai Electric Power Co., Inc. and E.ON SE. These two Utilities between them account for 22.3% of the carbon footprint and are both part of the Fund's global unconstrained equity strategy managed by Oldfield Partners.

4.2.3 Active Managers

The chart below shows the carbon footprints, in terms of carbon intensity, and the share of total carbon emissions of each of the Fund's active equity managers.



- The Fund's largest active mandate, managed by **Baillie Gifford**, shows a carbon footprint of 393, significantly below the footprint of the MSCI All Country World Index benchmark and while representing 51% of the Fund's active equity contributes only 32% of the active equity carbon emissions.

- The **Lazard** portfolio has a carbon footprint in excess of that of the MSCI index however, its 19.2% of total active equity translates into a 14% share of the active equity carbon emissions.

- The **Oldfield Partners** portfolio holds the two largest contributors to the carbon footprint of the portfolio namely The Kansai Electric Power Co., Inc. and E.ON SE. therefore it is not surprising that the Oldfield Partners portfolio has a carbon footprint well in excess of the MSCI index. The Oldfield portfolio represents 10.5% of the Fund's active equity but as the chart above shows it accounts for 45% of active equity emissions.

- This contrasts with the carbon footprint of the **Veritas** portfolio which recorded the lowest carbon footprint of all the Fund's portfolios at 96 and provides just 2% of total active equity emissions from 12.4% of the Fund's active equity holdings.

- The **Genesis** emerging market portfolio footprint of 608 is more carbon intensive than the global equity benchmark however, it is significantly less carbon intensive than the most widely used emerging market benchmark, the MSCI Emerging Market Index. It is also important to note that emissions data from emerging markets companies is the least complete and subject to significant levels of estimation. On the data that is available the Genesis share of total carbon emissions is only 8%.

4.2.4 Conclusions

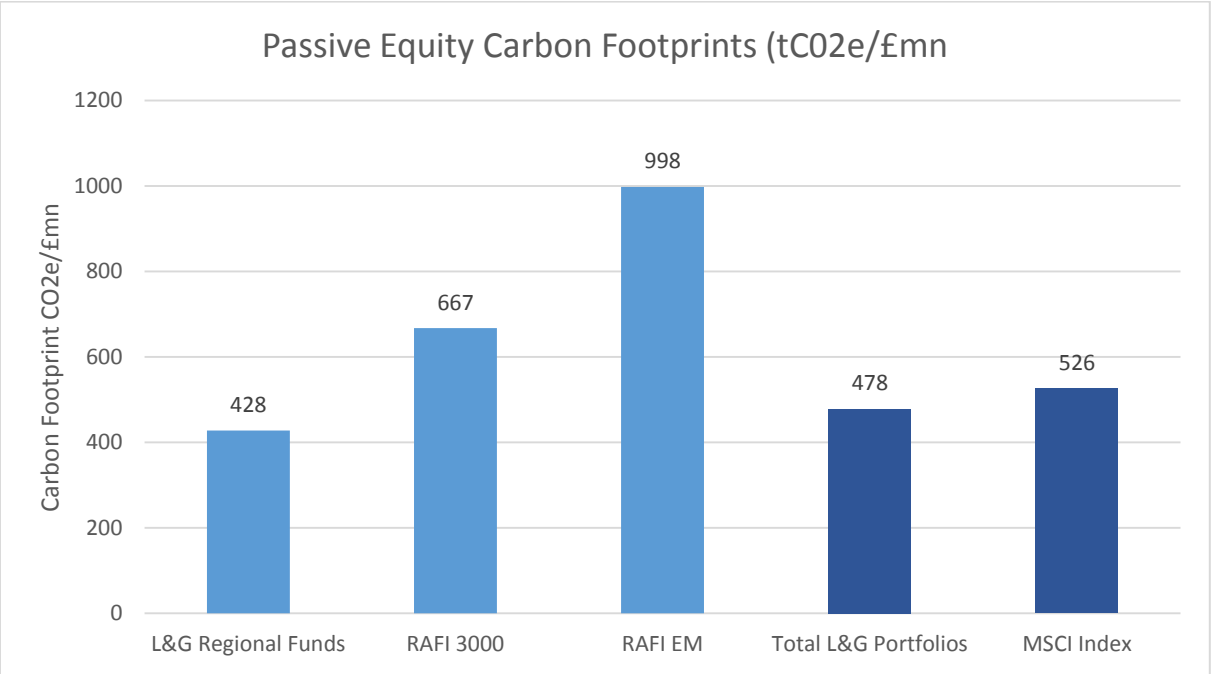
- The Fund's active equity is less carbon intensive than the MSCI All Country World Index.
- There is no evidence that oil and gas stocks are a major factor in the Fund's carbon footprint. On the contrary, direct exposure to the Oil & Gas sector contributes a net reduction in carbon intensity.
- Active manager stock selection is the main contributor in the portfolio being more carbon efficient than the benchmark. Manager asset allocation, particularly to the Construction & Materials sector detracts most.
- Ten companies have been identified as contributing nearly half of the active equity carbon footprint and 21% of the total active equity emissions. This list can provide a focus for the Funds engagement work on climate change.
- The Oldfield Partners portfolio accounts for 45% of total active equity emissions and 22.3% of the active equity carbon footprint comes from two companies.
- Data issues may significantly impact the calculation of investors' carbon footprints therefore asset owners may need to focus engagement efforts on data as a priority.

4.2.5 Proposals

- The Fund should use the list of largest contributors to the active equity carbon footprint as engagement targets for officers, the Fund's external investment managers and the Fund's engagement overlay provider, GES.
- Officers of the Fund should engage with Oldfield Partners regarding their investment process and engagement efforts with the two identified companies.
- The Fund should continue to support the work of the Carbon Disclosure Project and encourage the Fund's external investment managers and GES to include emissions disclosure as priority in company engagements.

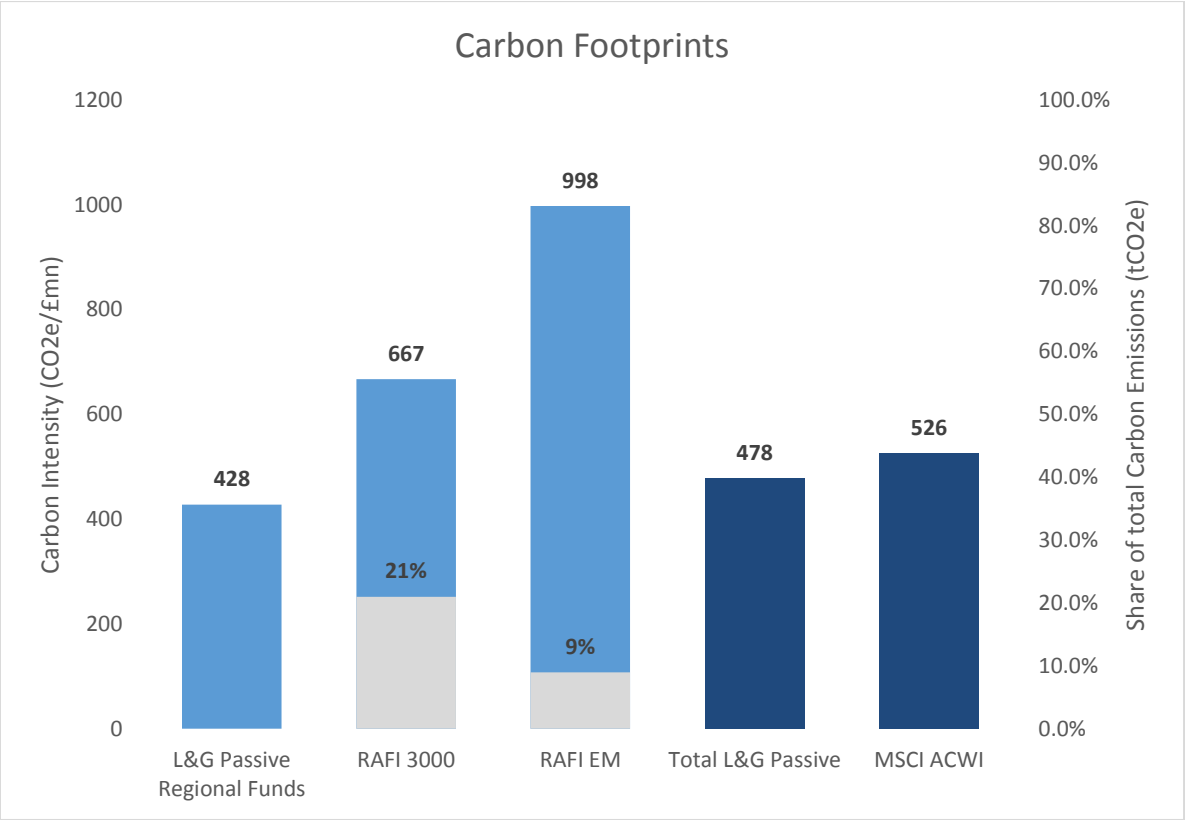
4.3 Passive Equity

At the time of the carbon footprint analysis 60% of the Fund's equity exposure was managed on a passive basis with Legal & General. As the chart below shows, the overall passive equity carbon footprint is 478 which is comfortably below the footprint of the MSCI All Country World Index of 526. A below benchmark passive equity carbon footprint is an unexpected outcome,



The chart above also shows the carbon footprints of the passively managed regional index tracking funds and the two Research Affiliates Fundamental Index funds, the RAFI 3000 and RAFI Emerging Markets. It can be seen that the two RAFI portfolios generate carbon footprints well above the MSCI benchmark. However, this impact is offset by the significantly less carbon intensive L&G regional funds. The L&G regional funds represent 86.4% of the passive strategy but account for only 69% of passive carbon emissions.

The chart below further illustrates this dilution of the carbon contribution from the RAFI portfolios and confirms that their high carbon intensity translates into approximately one third of the total carbon emissions from the Fund's passive equity. As previously discussed it is important to note that emissions data from emerging markets is subject to significant levels of estimation.



4.3.1 Passive Equity Sector and Stock Allocation

As with active equity, the two principal reasons why the carbon exposure of passive equity may differ from the benchmark are industrial sector and stock allocation variations. Unlike active equity these differences are not the result of investment manager decisions, but rather the consequence of the Fund's decisions regarding allocation of the passive portfolio using regional funds and fundamental index products. In effect the Fund owns a proportion of each passive fund and therefore can be allocated a proportion of each underlying company's carbon footprint.

In aggregate, the two sectors that have the greatest positive effect on carbon efficiency are Utilities and Construction & Materials, which together contribute 20.5% of the increased carbon efficiency. The Fund has benefitted from good stock selection in both these carbon heavy sectors. The two worst performing sectors in the portfolio, which contribute to 5.8% of reduced carbon efficiency, are Technology and Automobiles & Parts. An underweight position in both sectors misses capitalising on their low carbon credentials. It should be noted that the Fund's underlying exposure to the Oil & Gas sector contributes a net reduction in carbon intensity with stock selection contributing 4.1% of the increased carbon efficiency.

5 Review of non-exclusion, passive, low carbon investment solutions

At its meeting in March 2016 the Committee agreed that a review of non-exclusion, passive, low carbon investment solutions be initiated. Officers of the Fund have monitored the development of passive equity investment solutions and engaged with leading passive equity providers who have or intend to launch low carbon products.

The MSCI index solutions typically re-weight the constituents of the MSCI global (market capitalisation) index to reduce exposures to carbon emissions. The index is designed to achieve similar performance while minimizing the carbon exposure relative to the parent index. The indices are limited to tracking traditional carbon measures and the reduced carbon exposure is mostly achieved by a reduction in exposure to the major oil & gas companies. As shown by the carbon footprint analysis, the Fund's passive exposure to the Oil & Gas sector contributes a net reduction in carbon intensity and the impact of two worst performing sectors in the portfolio, Technology and Automobiles & Parts might not be addressed by a low carbon index solution.

The FTSE Green Revenues Index Series is designed to obtain increased exposure to companies engaged in the transition to a Low Carbon Economy. There appears to be a lot to commend this approach. However, it relies on a complicated proprietary data model analysing revenues of 13,400 public companies which was only launched in June this year. The complexity of the product, a lack of live performance history and the absence of detailed consultant research suggest it could be some time before this approach is widely considered. As with the MSCI Low Carbon indices there would be a direct cost in terms of licence fees and both approaches could deviate in varying degrees from comparable traditional market capitalisation indices in terms of both risk and performance.

5.1 Conclusions

- Solutions currently available have limitations in terms of live performance history, consultant research and methodology.
- They would entail direct investment management cost to the Fund and possibly an indirect cost in terms of performance and risk.
- Emissions data from companies is incomplete and can be unreliable. It is not a sound basis for a strategic investment decision or adoption of a passive investment solution at this time.

5.2 Proposal

- The Fund should not adopt a low carbon passive investment approach at this time.
- Developments and solutions in this area should continue to be monitored.

6 Industry Forums and Initiatives

At its meeting in March 2016 the Strathclyde Pension Fund Committee agreed that the Fund should investigate membership of additional industry forums or industry initiatives to support its engagement work around key issues such as climate change. Details of the Fund's current climate change activity through forums and initiatives is included at Appendix B.

Officers of the Fund investigated a range of possibilities. The Institutional Investors Group on Climate Change (IIGCC) appeared to be the most appropriate in this context given its exclusive focus on climate change issues. The IIGCC is an investor forum dedicated to collaboration on climate change with a stated mission to provide investors a common voice to encourage public policies, investment practices and corporate behaviour which address long-term risks and opportunities associated with climate change. Details on the IIGCC are included at Appendix C.

In November, officers from the IIGCC presented to the Strathclyde Pension Fund Committee Sounding Board.

6.1 Conclusions

IIGCC is at the forefront of managing climate change, has global reach and a differentiated approach from other initiatives.

6.2 Proposal

The Fund should join the Institutional Investors Group on Climate Change (IIGCC).

7 Policy and Resource Implications

Resource Implications:

Financial:	Cost of carbon footprinting to date has been £13,000 approx. The cost of further carbon footprinting is dependent on the number of portfolios covered and level of analysis required. It is currently in the region of £1,000 - £2,000 per equity portfolio. IIGCC annual membership is £6,300.
Legal:	No issues
Personnel:	No issues

Council Strategic Plan: Not applicable

Equality Impacts:

EQIA carried out:	N/a
Outcome:	N/a

Sustainability Impacts:

Environmental:	Recognising environmental, social and governance issues is fundamental to the Fund's responsible investment policy.
Social:	Recognising environmental, social and governance issues is fundamental to the Fund's responsible investment policy.
Economic:	Recognising environmental, social and governance issues is fundamental to the Fund's responsible investment policy.

8 Recommendations

The Committee is asked to AGREE that the Fund should:

- review the carbon footprint of its listed equity holdings every two years and investigate the inclusion of other asset classes;
- use this data to progress engagement;
- join the Institutional Investors Group on Climate Change (IIGCC); and
- continue to monitor development of low carbon investment approaches but not adopt such a strategy at this time.

Appendix A

Carbon Footprinting

Carbon footprinting is widely accepted to offer a way for investors to quantify, measure and subsequently manage the carbon exposure associated with their investments.

There is no agreed or accepted standard to footprint an investment portfolio and understand carbon risks. It requires a combination of quantitative and qualitative assessments. As might be expected, in some sectors, direct emissions are a key component of business drivers, while others have carbon embedded in areas over which they have limited control.

Emission numbers are the simplest and most widely available quantitative data. These can outline how much carbon is emitted by each portfolio using comparable data sets.

The Greenhouse Gas Protocol, the most widely used international accounting tool for government and business leaders to assess Greenhouse Gas emissions (GHG), classifies a company's direct and indirect GHG into three scopes.

- Scope 1 – All direct greenhouse gas emission from sources owned or controlled by an organisation.
- Scope 2 – Indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam or other sources of energy.
- Scope 3 – Emissions that are a consequence of the operations of an organization, but are not directly owned or controlled by the organisation. Scope 3 includes a number of different sources of GHG including employee commuting, business travel, third-party distribution and logistics, production of purchased goods, emissions from the use of sold products, and several more.

It is worth highlighting that emissions data and analysis are not flawless. While scope 1 and 2 are disclosed relatively widely and the data quality can be monitored to some extent, scope 3 is extremely patchy in disclosure and there is a lack of consistent disclosure methodologies. Disclosure can differ widely from one company/industry to another. In addition by showing the three elements at the same time (scope 1, 2 and 3) the same emission can be double or even triple counted by different companies.

Carbon footprint analysis quantifies GHG embedded within the portfolio presenting these as tonnes of carbon dioxide equivalents (tCO2e). Comparing the total GHG emissions of each holding relative to annual revenue, gives a measure of carbon intensity that enables comparison between companies, irrespective of size or geography. The carbon footprint is an analysis of the GHG embedded within the portfolio. This is achieved by carrying out a carbon footprint for each individual holding encapsulating both direct and first tier indirect impacts. Direct emissions result from a company's own operations and include GHG emissions from boilers and company owned vehicles, emissions from any manufacturing operations and waste produced. First tier indirect impacts, also termed supply chain impacts, occur because of the goods or services a company procures. This includes purchase electricity, business travel and logistics.

Appendix B

Current Participation in Forums and Initiatives

Local Authority Pension Fund Forum (LAPFF)

The Fund is a member of the Local Authority Pension Fund Forum (LAPFF), a collaborative shareholder engagement group which brings together 71 local authority pension funds from across the UK with combined assets of over £160 billion. LAPFF strongly supports mandatory carbon emission reporting in the context of how companies are factoring the relevance of climate change into their business strategy. In particular, the Forum supports the 'Aiming for A' investor coalition which co-filed shareholder resolutions at the BP and Shell 2015 AGMs on behalf of 50 global investor organisations as well as individual shareholders. The resolutions asked BP and Shell to report effectively on climate related risk in their routine annual reporting. The resolutions received 98% and 99% shareholder support respectively. LAPFF's policy is that robust engagement on a collective basis is preferable to placing restrictions on particular types of investment.

Carbon Disclosure Project

The Fund is a signatory to Carbon Action and the Water and Forest programs of the Carbon Disclosure Project (CDP). CDP was initiated at the turn of the century but has gathered momentum in the last few years.

Carbon Action is a CDP initiative supported by over 304 signatories which works with investors and corporations to encourage companies to take action to reduce their Green House Gas emissions by making investments in emissions reduction activities that have a satisfactory financial return. To date over 552 companies have been targeted in heavy emitting industries, $86bn invested in emissions reduction activities with 2,433 reported projects and reduced emissions of 640 million metric tonnes CO2e reported.

The CDP Forest program engages companies to disclose their exposure to five forest risk commodities – cattle products, bio fuels, soy and timber, supported by 298 signatories with assets of US$19 trillion. Over 780 companies globally reported on deforestation risk through CDP Forest in 2015, 171 companies chose to disclose to CDP to enable effective management of the five key forest risk commodities.

Established in 2009 the CDP Water program engages companies to disclose their exposure to water risks and opportunities, supported by 617 signatories with assets of US$63 trillion. In 2015, more than 1,073 companies were asked to disclose information relating to water.

RE100

In December 2015 the Fund joined with institutional investors representing more than £352 billion in assets to support the **RE100** initiative coordinated by Responsible Investment charity ShareAction. RE100 is a collaborative business initiative that supports companies that make a public pledge to switch to 100% renewable electricity for their international operations by an agreed date. The private sector accounts for around half of the world's electricity consumption, switching this demand to renewables would accelerate the transformation of the global energy market and aid the transition to a low carbon economy. Founding members of the investor

initiative include Aviva Investors, Environment Agency Pension Fund, French pension fund ERAFP, Norwegian fund KLP and Menhaden Capital. The investor engagement programme, supported by ShareAction, will see these investors engaging with companies through letters, meetings and AGMs, to encourage them to switch to 100% renewable energy. Companies already making a commitment to go 100% renewable include BMW Group, Coca Cola Enterprises, Google, H&M, Ikea, Johnson & Johnson, M&S, Mars, Microsoft, Nestle, Nike, Philips, P&G, Starbucks, Unilever and Walmart.

FAIRR

In October 2015 the Fund joined investors representing more than US $500 billion in assets to support the **Farm Animal Investment Risk and Return** initiative (FAIRR). This collaborative approach supported by institutional investors including Aviva Investors, Boston Common Asset Management and Joseph Rowntree Charitable Trust aims to encourage analysis and engagement around the long-term risks that factory farming poses to portfolios. The animal factory farming sector is becoming a high-risk sector for investors, and is exposed to numerous different sustainability-related factors. In many cases these risks are already showing evidence of significant value destruction. Factory farming alone contributes 30 percent of global methane emissions and 65 percent of nitrous oxide emissions. Today, livestock farming produces more global greenhouse gases (15 percent) than the transport sector (14 percent). Similarly, about 75 percent of soybean production, which is a major contributor to deforestation and climate change, is used to feed livestock. Therefore factory farming leaves itself and its investors critically exposed to potential new climate legislation as we transition to a more carbon constrained world.

Paris Pledge for Action

The Fund joined with investors, businesses and other non-state entities from across the world in joining the Paris Pledge for Action. At the COP21 climate change talks in Paris on 12th December 2015 the former French prime minister and president of COP21 Laurent Fabius called for non-state actors to show their support for climate action by joining the Paris Pledge for Action. L'Appel de Paris represents a unique opportunity for non-state actors to welcome the Paris Agreement on climate change and commit to implement it. By joining the pledge, businesses, cities, civil society groups, investors, regions, trade unions and other signatories promise to ensure that the ambition set out by the Paris Agreement is met or exceeded to limit global temperature rise to less than 2 degrees Celsius.

Appendix C

Institutional Investors Group on Climate Change (IIGCC)

The IIGCC provides investors with the collaborative platform to encourage public policies, investment practices and corporate behaviour that address long-term risks and opportunities associated with climate change. To deliver on its objectives, IIGCC operates a number of programmes that commission research, produce reports and engage with various stakeholders. These are some of the planned and on-going projects in each of IIGCC's main focus areas.

- **Policy**
  The mission of IIGCC's Policy programme is to develop and communicate investor positions on policy and regulatory frameworks at international, regional and national level to support a shift in favour of less carbon-intensive investment. Investors are concerned both about the impact of climate change on investments as well as taking advantage of the opportunities from green growth. One of IIGCC's twin objectives is to change market signals by encouraging the adoption of investment-grade public policy solutions that support an orderly and efficient move to a low carbon economy.

- **Climate Solutions**
  The aim of IIGCC's Climate Solutions programme is to help investors identify, and to the extent possible, quantify the strategic implications of policy measures and physical risks to long-term investments with a view to inform communication with other stakeholders. Climate change and related policy responses present a series of economic and financial risks as well as opportunities to which investors must respond. The second of IIGCC's twin objectives is to inform and support improved investor and corporate practices on climate change.

- **Corporate**
  The mission of IIGCC's Corporate programme is to deepen investor understanding of the nature of risks and opportunities faced by companies, as well as their strategies and performance in addressing them. There is also a special focus on company views on climate change policy. Climate policy and the changing climate create substantial risks and opportunities for companies, who also have a central role to play in successful climate change mitigation and adaptation. The Investor Expectations: Oil and Gas Company Strategy aims to set a common agenda to further stimulate and facilitate more meaningful discussions of climate risk by a larger number of investors and oil and gas companies. This builds on dialogue of the Carbon Asset Risk (CAR) Initiative, through which 75 investors managing more than $3 trillion in assets engaged with 45 of the world's largest fossil fuel companies, asking them to assess how business plans fare in a low-carbon future and address possible risk of stranded assets.

- **Property**
  IIGCC's Property programme has two principal aims: The first is to engage with policymakers to ensure appropriate policies are put in place which maximise environmental benefits whilst maintaining and enhancing property investment returns. The second aim is to ensure that considerations of climate

change and its implications are integrated into the management and decision-making process for property investment portfolios. Real estate investors realise that climate change can impact the performance of property investments directly through physical impacts as well as indirectly through legislative or regulatory responses. IIGCC's strategic objectives to shape market signals and improve investor practices are well-suited to this asset class.

- **Global**
  IIGCC collaborates with regional investor networks and others. The Global Investor Coalition on Climate Change is a collaboration between IIGCC, the Investor Network on Climate Risk, the Australian IGCC and Asian IGCC for shared international initiatives on climate policy and other projects of common interest.