FOR YOUR FUTURE
2017/18 Overview

Richard McIndoe
Director SPFO
Our pension pays for climate change
Snowmen against global warm
Strathclyde Pension DIVEST
Responsible Investment and Climate Change

House of Commons
Environmental Audit Committee

Greening Finance: embedding sustainability in financial decision making

Seventh Report of Session 2017–19
Actuarial Valuation

LGPS 2015 1/49th (CA)

LGPS 2009 1/60th (FS)

LGPS 1/80th +3/80ths (FS)

Investment objectives - Risk vs Return

Equity

Hedging/Insurance

Credit

Long term enhanced yield

Short term enhanced yield

Chart showing pension amounts by year for Pensioner, Deferred, and Active members.
Actuarial Valuation

Strathclyde Pension Fund No 1 Fund
2017 Actuarial Valuation Report
March 2019

Catherine McFadyen
Steven Law
Stacey Mcclean
Fellows of the Institute and Faculty of Actuaries.
For and on behalf of Hymans Robertson LLP.
Investment

Weekly tracker
How likely is it that scheme investments will be at a higher value in six months?
Investment

Market Summary > S&P 500 Index
INDEXCBOE: .INX

2,773.64  +1.29 (0.047%) ↑
7 Jun, 11:20 GMT-4 · Disclaimer

1 day  5 days  1 month  1 year  5 years

2,900
2,800
2,700
2,600
2,500
2,400

2,433.14  7 Jun 2017
Aug 2017  Dec 2017  Apr 2018
REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 27 April 2016

on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 16 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee (1),

Having regard to the opinion of the Committee of the Regions (2),

Acting in accordance with the ordinary legislative procedure (3),

Whereas:

(1) The protection of natural persons in relation to the processing of personal data is a fundamental right. Article 8(1) of the Charter of Fundamental Rights of the European Union (the ‘Charter’) and Article 16(1) of the Treaty on the Functioning of the European Union (TFEU) provide that everyone has the right to the protection of personal data concerning him or her.

(2) The principles of, and rules on the protection of natural persons with regard to the processing of their personal data should, whatever the nationality or residence, respect their fundamental rights and freedoms, in particular their right to the protection of personal data. This Regulation is intended to contribute to the accomplishment of an area of freedom, security and justice and of an economic union, to economic and social progress, to the strengthening and the convergence of the economies within the internal market, and to the well-being of natural persons.

(3) Directive 95/46/EC of the European Parliament and of the Council (1) seeks to harmonise the protection of fundamental rights and freedoms in the field of processing of personal data within the Union.
Scheme Administration

SCOTTISH STATUTORY INSTRUMENTS

2018 No.
PUBLIC SERVICE PENSIONS
The Local Government Pension Scheme (Scotland) Regulations 2018

Made - 2018
Laid before the Scottish Parliament - 2018
Coming into force in accordance with regulation 1

CONTENTS

PART I
Membership, contributions and benefits

1. Citation, commencement and extent 4
2. Introductory 4
3. Membership 5
4. Active membership 6
5. Retirement eligibility for active membership 7
6. Ending active membership 7
7. Defined members 7
8. Survivor members 7
9. Pension credit and survivor members 7
10. Contributions 8
11. Temporary reduction in contributions 9
12. Contributions during paid leave 9
13. Contributions during long service leave 9
14. Contributions during absence for illness etc. 10
15. Employer contributions during absence 10
16. Additional pension contributions 10
17. Additional voluntary contributions 10
18. Rights to return of contributions 10
19. Exclusion of rights in return of contributions 10
20. Meaning of pensionable pay 10
21. Assumed pensionable pay 10
22. Pension accounts 19
23. Active member’s pension accounts 20

APR314521

PART II
Pensions

Made - 2018
Laid before Parliament - 2018
Coming into force - 20th February 1998

The Scottish Ministers make the following Regulations in exercise of the powers conferred by sections 7, 12 and 24 of the Superannuation Act 1972(1) and of all other powers enabling them to do so.

In accordance with section 7(5) of that Act, they have consulted such associations of local authorities as appeared to them to be concerned, such local authorities with whom consultation appeared to them to be desirable, and such representatives of other persons likely to be affected by the proposed regulations as appeared to them to be appropriate.

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION

Having regard to the Treaty on European Union,
Having regard to the proposals of the Commission,
After transmission of the draft of this Regulation to the European Parliament and the Council and without prejudice to Article 251 of the Treaty on European Union,
Having regard to the opinion of the European Economic and Social Committee and the Committee of the Regions,
Acting in accordance with the Joint Declaration of the European Parliament and the Council on transitional provisions regarding data sharing and processing,
Whereas:

1. The protection of natural and human rights and the promotion of the rule of law, democracy and social progress, to the benefit of all persons.

2. The principles of, and the rights and obligations arising from, EU law, national, international or residence law and the principles of fundamental rights and freedoms, including the protection of personal data.

3. Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data (the “General Data Protection Regulation” (GDPR))

Governance

MANDATORY ROLES

Responsible Authority
(Scottish Ministers)

Scheme Managers
(Administering Authorities)

Glasgow City Council
City of Edinburgh Council
Aberdeen City Council
Dundee City Council
Scottish Borders Council
Dumfries & Galloway Council
Falkirk Council
Fife Council
Highlands Council
Orkney Islands Council
Shetland Islands Council

Scheme Advisory Board

Pension Boards

Scheme Member

OTHER STAKEHOLDERS

Employers

COSLA

GAD

SPPA

Other Advisors
(E.g. actuaries, audit)

LGPC, CIPFA, PLSA etc.
- DB Scheme of the Year
- DB Communications
- Best use of Alternatives

- Best UK Scheme

LAPF Investments Awards

For local authority pension funds and their advisers
Agenda

• 2017/18 Annual Accounts
  – Fund Account
  – Return on Investments
  – Net Assets Statement

• Statistics, current and previous year movement and trends

• Future cashflow and factors
## 2017/18 Annual Accounts – Members

<table>
<thead>
<tr>
<th></th>
<th>2016/17 £m</th>
<th>2017/18 £m</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUND INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions receivable from employers</td>
<td>398</td>
<td>417</td>
<td></td>
</tr>
<tr>
<td>Contributions receivable from employees</td>
<td>122</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Transfers in</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Other income</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>526</td>
<td>549</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2016/17 £m</th>
<th>2017/18 £m</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUND PAYMENTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pensions</td>
<td>411</td>
<td>422</td>
<td></td>
</tr>
<tr>
<td>Lump sums and Death Benefits</td>
<td>121</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Payments to and account of Leaver</td>
<td>25</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>557</td>
<td>580</td>
<td></td>
</tr>
<tr>
<td>Net addition/Reduction - from dealings with members</td>
<td>-31</td>
<td>-31</td>
<td></td>
</tr>
</tbody>
</table>
Total Income from Members and Employers

£m

<table>
<thead>
<tr>
<th>Year</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014/15</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015/16</td>
<td>550</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016/17</td>
<td>575</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017/18</td>
<td>590</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Total Expenditure from Dealing with Members

£m

- 2013/14
- 2014/15
- 2015/16
- 2016/17
- 2017/18
Statistics

- Average Pension £5,600 (76,683)
- Average Lump sum £37,900 (2,150)
- Average employee contributions £1,300 (98,870 net cost £1,000)
- Average employer contributions £4,300 (178 employers for 98,870 staff)
- Members 233,312 (5% increase and 14% from 2014)
Return on Investments

£1.2bn or 6%
2017/18 Accounts – Return on Investment

<table>
<thead>
<tr>
<th>£m</th>
<th>2016/17</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RETURNS ON INVESTMENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment income</td>
<td>252</td>
<td>285</td>
</tr>
<tr>
<td>Management expenses</td>
<td>(101)</td>
<td>(114)</td>
</tr>
<tr>
<td>Change in market value of investments</td>
<td>3,521</td>
<td>967</td>
</tr>
<tr>
<td><strong>Net returns on investments</strong></td>
<td><strong>3,672</strong></td>
<td><strong>1,138</strong></td>
</tr>
<tr>
<td><strong>Net movement in the Fund during the year</strong></td>
<td><strong>3,641</strong></td>
<td><strong>1,107</strong></td>
</tr>
</tbody>
</table>

ADD

<table>
<thead>
<tr>
<th>£m</th>
<th>2016/17</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening net assets as at 1st April</td>
<td>16,059</td>
<td>19,699</td>
</tr>
</tbody>
</table>

EQUALS

<table>
<thead>
<tr>
<th>£m</th>
<th>2016/17</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing net assets as at 31st March</td>
<td>19,699</td>
<td>20,806</td>
</tr>
</tbody>
</table>
Net Assets

£20.8bn
### 2017/18 Annual Accounts – Net Assets

<table>
<thead>
<tr>
<th>2016/7</th>
<th>Investment Assets</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>£m</td>
<td></td>
<td>£m</td>
</tr>
<tr>
<td>9,213</td>
<td>Equities</td>
<td>7,286</td>
</tr>
<tr>
<td>7,714</td>
<td>Pooled Investment Vehicles</td>
<td>10,395</td>
</tr>
<tr>
<td>280</td>
<td>Derivative Contracts</td>
<td>2</td>
</tr>
<tr>
<td>1,673</td>
<td>Property</td>
<td>1,881</td>
</tr>
<tr>
<td>1,096</td>
<td>Cash and Other</td>
<td>1,272</td>
</tr>
<tr>
<td>19,976</td>
<td></td>
<td>20,836</td>
</tr>
</tbody>
</table>

(315) Investment liabilities (65)

93 Current Assets 97

(55) Current Liabilities (62)

19,699 Net Assets 20,806
Closing Net Assets of the Fund

£m

<table>
<thead>
<tr>
<th>Year</th>
<th>£m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14</td>
<td>15,000</td>
</tr>
<tr>
<td>2014/15</td>
<td>20,000</td>
</tr>
<tr>
<td>2015/16</td>
<td>25,000</td>
</tr>
<tr>
<td>2016/17</td>
<td>30,000</td>
</tr>
<tr>
<td>2017/18</td>
<td>35,000</td>
</tr>
</tbody>
</table>
Financial Summary

• Net Assets increased from £19.7bn to £20.8bn. Increase of 6%

• Highest ever Net Assets value

• Triennial revaluation 105.0%. Intervenualuation 105.6%
Summary

• Increasing fund expenditure (£581m) and income (£549m)

• Leads to reduction but investment income (£285m) sufficient to cover this

• Increasing members to 233,000 (5%)
10 Year Cashflow

Strathclyde Pension Fund Cash Flow for 2017/18 to 2027/28

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017/18</td>
<td>578</td>
<td>552</td>
</tr>
<tr>
<td>2018/19</td>
<td>594</td>
<td>577</td>
</tr>
<tr>
<td>2019/20</td>
<td>614</td>
<td>609</td>
</tr>
<tr>
<td>2020/21</td>
<td>635</td>
<td>622</td>
</tr>
<tr>
<td>2021/22</td>
<td>656</td>
<td>635</td>
</tr>
<tr>
<td>2022/23</td>
<td>679</td>
<td>648</td>
</tr>
<tr>
<td>2023/24</td>
<td>702</td>
<td>661</td>
</tr>
<tr>
<td>2024/25</td>
<td>726</td>
<td>675</td>
</tr>
<tr>
<td>2025/26</td>
<td>751</td>
<td>689</td>
</tr>
<tr>
<td>2026/27</td>
<td>777</td>
<td>703</td>
</tr>
<tr>
<td>2027/28</td>
<td>804</td>
<td>718</td>
</tr>
</tbody>
</table>
10 Year Cashflow

Strathclyde Pension Fund Cash Flow for 2017/18 to 2027/28

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Members Income</th>
<th>Investment Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017/18</td>
<td>578</td>
<td>552</td>
<td>252</td>
</tr>
<tr>
<td>2018/19</td>
<td>594</td>
<td>577</td>
<td>261</td>
</tr>
<tr>
<td>2019/20</td>
<td>614</td>
<td>609</td>
<td>270</td>
</tr>
<tr>
<td>2020/21</td>
<td>635</td>
<td>622</td>
<td>279</td>
</tr>
<tr>
<td>2021/22</td>
<td>656</td>
<td>635</td>
<td>289</td>
</tr>
<tr>
<td>2022/23</td>
<td>679</td>
<td>648</td>
<td>299</td>
</tr>
<tr>
<td>2023/24</td>
<td>702</td>
<td>661</td>
<td>310</td>
</tr>
<tr>
<td>2024/25</td>
<td>726</td>
<td>675</td>
<td>320</td>
</tr>
<tr>
<td>2025/26</td>
<td>751</td>
<td>689</td>
<td>332</td>
</tr>
<tr>
<td>2026/27</td>
<td>777</td>
<td>703</td>
<td>343</td>
</tr>
<tr>
<td>2027/28</td>
<td>804</td>
<td>718</td>
<td>355</td>
</tr>
</tbody>
</table>
• Auto-enrolment

• Inflation

• Market conditions

• Freedom and Choice and Structure Review
Questions?
Administration

Linda Welsh
Pension Scheme Manager
Another challenging year - (Oh great more grey hairs & wrinkles, you would never know I am only 25!!)

Membership Data

SPFO performance

Employer engagement/performance

What’s next:
- TPR Data Quality
- Fund Data Improvement Plan
- I-Connect/Online submissions
- Improving everyone’s experience
Another Challenging Year!

- Payments: 85,000 pensioners x 12 = £550 million
- Processes: 100,000
- Valuation: 13,000 records cleansed
- ABS: 98% issued by 31st August
- Welcomed new Pension Board and Committee
- Digital Delivery
- GDPR: Regulations 2018
Digital Delivery

63,617 registered

17/18 target was 53,000
The Local Government Pension Scheme (Scotland) Regulations 2018

- Effective date – 1st June 2018
- Consolidation of Regulations
- Retirement Benefits – Regulation 29 (13) - Regulation removed so that members who reach age 55 and elect to take early payment of their pension, with an actuarial reduction, do not need their employer’s consent.
- Special Circumstances where revised valuations and certificates must be obtained - Regulation 61 - Regulation amended to give more flexibility for administering authorities to manage liabilities when employers leave the Scheme and to provide for ‘exit credit’ to exiting employers if appropriate.
## SPFO Performance

<table>
<thead>
<tr>
<th>Transactions</th>
<th>Volume</th>
<th>SPFO Target days</th>
<th>Target %</th>
<th>Achieved %</th>
<th>Statutory Deadline</th>
<th>Achieved %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Changes</td>
<td>16,309</td>
<td>15 days</td>
<td>95%</td>
<td>94.3%</td>
<td>2 months</td>
<td>100%</td>
</tr>
<tr>
<td>Refunds</td>
<td>2,335</td>
<td>7 days</td>
<td>90%</td>
<td>94.1%</td>
<td>As soon as reasonably practicable</td>
<td>100%</td>
</tr>
<tr>
<td>Deferred</td>
<td>2,220</td>
<td>10 days</td>
<td>90%</td>
<td>71.6%</td>
<td>2 months</td>
<td>83.15%</td>
</tr>
<tr>
<td>Retiral Estimates</td>
<td>3,159</td>
<td>20 days</td>
<td>80%</td>
<td>79.7%</td>
<td>2 months</td>
<td>98%</td>
</tr>
</tbody>
</table>

### Payments

<table>
<thead>
<tr>
<th>Payments</th>
<th>Volume</th>
<th>Statutory Deadline</th>
<th>Achieved %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensions payroll run on time</td>
<td>12</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>New retirals processed for due payroll date</td>
<td>1,050</td>
<td>N/A</td>
<td>95%</td>
</tr>
<tr>
<td>Retirement lump sums paid on retirement date</td>
<td>1,050</td>
<td>N/A</td>
<td>95%</td>
</tr>
<tr>
<td>Contribution income received by due date</td>
<td>12</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
## Member Survey Results

<table>
<thead>
<tr>
<th></th>
<th>Refunds</th>
<th>Retirals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms Issued</strong></td>
<td>2,335</td>
<td>2,135</td>
</tr>
<tr>
<td><strong>Responses</strong></td>
<td>1,297</td>
<td>881</td>
</tr>
<tr>
<td><strong>Response Rate (%)</strong></td>
<td>55.5</td>
<td>41.3</td>
</tr>
<tr>
<td><strong>“Satisfaction rating” (%)</strong></td>
<td>84.6</td>
<td>89.6</td>
</tr>
<tr>
<td><strong>Target (%)</strong></td>
<td>80.0</td>
<td>90.0</td>
</tr>
<tr>
<td><strong>2016/2017 full Year (%)</strong></td>
<td>82.8</td>
<td>88.6</td>
</tr>
</tbody>
</table>
Our achievements!

Professional Pensions -
- *DB Scheme of the Year*
- *DB Communications*
- *Best use of Alternatives*

IPE Award
- *Best UK Fund*

LAPF Investments –
- *Investment Strategy*
Employer Engagement

TEAM SUCCESS
WORKING TOWARDS A COMMON VISION
## Employers Performance

<table>
<thead>
<tr>
<th>Service Standard</th>
<th>Achieved 16/17</th>
<th>Achieved 17/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>New start good quality data (Local Authority Employers)</td>
<td>72%</td>
<td>88%</td>
</tr>
<tr>
<td>Electronic notification of changes received (Local Authority Employers)</td>
<td>60%</td>
<td>74%</td>
</tr>
<tr>
<td>Prior notice of retirement (2 months)</td>
<td>35%</td>
<td>52%</td>
</tr>
<tr>
<td>Submission of year-end contribution return by the 20(^{th}) May</td>
<td>76%</td>
<td>66%</td>
</tr>
<tr>
<td>Remittance of employee and employer contributions by the 19(^{th}) of the month following deduction (Local Authority Employers)</td>
<td>99%</td>
<td>100%</td>
</tr>
</tbody>
</table>
## Employer Data

<table>
<thead>
<tr>
<th></th>
<th>31st March 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Members</td>
</tr>
<tr>
<td>Record status matched</td>
<td>97,185</td>
</tr>
<tr>
<td>Missing new start data</td>
<td>761</td>
</tr>
<tr>
<td>Missing leaver data</td>
<td>924</td>
</tr>
<tr>
<td>Total employee members</td>
<td>98,870</td>
</tr>
</tbody>
</table>

Aggregate prior and current year exception rate of 1.7% achieves the year-end target of <2%. 
What’s Next?
Why accurate data matters

Ensures the Fund retains accurate member details and pays the correct benefits

Help employees decide on pension choices through correct information

Accurate data for fund valuation = correct charges levied on employers

Minimise risk of fines or additional charges

Reduce effort expended responding to pension queries for both the Fund & Employers

Annual benefit statements produced on time and accurately
Data Improvement Plan

1. Set objectives you want to achieve
2. Define outcomes and scope of plan
3. Define activities, dependencies, timeline, resources and governance
4. Deliver
5. Report
Employer challenges

- Supporting multiple interfaces
- Lack of technical knowledge, when supporting employee pension queries
- Lack of resource to provide data, e.g. at year end
- Identify changes to be sent to the pension scheme
The perfect solution for small employers who are unable to produce the payroll extract file

```markdown
<table>
<thead>
<tr>
<th>Employee Contributions &amp; Pay - Year to Date values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Period End Date: 30-04-2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>NI Number</th>
<th>Payroll Ref</th>
<th>This Pay Period Totals</th>
<th>Year to Date Totals</th>
<th>CARE</th>
<th>Full Time Equivalent Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>EE Main</td>
<td>EE 50/50</td>
<td>ER</td>
<td>EE Main</td>
</tr>
<tr>
<td>1</td>
<td>B8000003A</td>
<td>540033</td>
<td>60.00</td>
<td>0.00</td>
<td>120.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Y6000001A</td>
<td>124444</td>
<td>120.00</td>
<td>0.00</td>
<td>240.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>180.00</td>
<td>360.00</td>
<td>360.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
```
Why i-Connect?

“i-Connect simplifies interactions with the Fund for the employer”

- Improved governance
- Improved efficiency
- Secure data transfer
- Packaged solution - future proof
- Low maintenance
- Reduced pension fund and employer costs

Why i-Connect?
Everyone’s Happy
Questions?
2017 Valuation

Strathclyde Pension Fund AGM
Friday 15 June 2018

Catherine McFadyen FFA
Steven Law FFA
Strathclyde Pension Fund
What happened since 2014

- **Pre-retirement**
  - Pay increases 2.7% p.a.
  - Less IH retirements
  - Benefit increases 0.7% p.a.

- **Post-retirement**
  - Benefit increases 0.7% p.a.
  - ‘Positive’ death experience
## Actuarial assumptions

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2014</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-retirement</td>
<td>5.9%</td>
<td>5.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Post-retirement</td>
<td>5.5%</td>
<td>4.7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Salary Increases</td>
<td>5.1%</td>
<td>4.5%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Benefit Increases</td>
<td>2.8%</td>
<td>2.7%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>
In numbers

- Surplus / (deficit) at last valuation: (839) £m
- Interest on surplus / (deficit): (127) £m
- Investment returns greater than expected: 3,715 £m
- Other membership experience items: 1,244 £m
- Change in demographic assumptions: 75 £m
- Change in financial assumptions: (3,129) £m
- Surplus / (deficit) at this valuation: 939 £m
# In numbers

<table>
<thead>
<tr>
<th>Valuation Date</th>
<th>31 March 2014</th>
<th>31 March 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Past Service Liabilities</strong></td>
<td>(£m)</td>
<td>(£m)</td>
</tr>
<tr>
<td>Employees</td>
<td>6,920</td>
<td>9,057</td>
</tr>
<tr>
<td>Deferred Pensioners</td>
<td>1,569</td>
<td>2,233</td>
</tr>
<tr>
<td>Pensioners</td>
<td>6,299</td>
<td>7,470</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>14,788</td>
<td>18,761</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td>13,949</td>
<td>19,699</td>
</tr>
<tr>
<td><strong>Surplus / (Deficit)</strong></td>
<td>(839)</td>
<td>939</td>
</tr>
<tr>
<td><strong>Funding Level</strong></td>
<td>94%</td>
<td>105%</td>
</tr>
</tbody>
</table>
But challenges remain

• Market uncertainty
  – Global trade
  – US economic experiment
  – Brexit negotiations

• Employer risks
  – Affordability
  – Cessation
  – Data

• Managing external pressure
  – Untested regulators
  – Public perception
LGPS Scotland
Reflecting on the 2017 valuations
Reported 2017 Funding Levels

Scottish LGPS Funds - 2017 Reported Funding Levels

<table>
<thead>
<tr>
<th>Location</th>
<th>Funding Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shetland Islands</td>
<td>90.0%</td>
</tr>
<tr>
<td>Dumfries and Galloway</td>
<td>91.7%</td>
</tr>
<tr>
<td>Falkirk</td>
<td>92.3%</td>
</tr>
<tr>
<td>Fife</td>
<td>92.9%</td>
</tr>
<tr>
<td>Lothian</td>
<td>97.8%</td>
</tr>
<tr>
<td>Highland</td>
<td>100.7%</td>
</tr>
<tr>
<td>Strathclyde</td>
<td>105.0%</td>
</tr>
<tr>
<td>North East</td>
<td>107.1%</td>
</tr>
<tr>
<td>Tayside</td>
<td>107.2%</td>
</tr>
<tr>
<td>Orkney Islands</td>
<td>112.4%</td>
</tr>
<tr>
<td>Scottish Borders</td>
<td>114.1%</td>
</tr>
</tbody>
</table>

Range: 90.0% to 114.1%

Source: 2017 actuarial valuation reports
Rebased 2017 Funding Levels

Scottish LGPS Funds - 'Like for Like' Funding Levels

Shetland Islands 89.3%  
Falkirk 91.3%  
Dumfries and Galloway 91.7%  
Fife 91.8%  
Scottish Borders 94.7%  
Tayside 96.9%  
Highland 97.1%  
North East 97.4%  
Lothian 106.2%  
Orkney Islands 109.0%  
Strathclyde 119.2%  

2nd
# Current Contribution Rates

<table>
<thead>
<tr>
<th>Fund</th>
<th>Average Total Contribution Rate 2018/19 – 20/21</th>
<th>Movement over period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strathclyde Pension Fund</td>
<td>19.6%</td>
<td>Stable</td>
</tr>
<tr>
<td>Lothian Pension Fund</td>
<td>21.3%</td>
<td>Increasing</td>
</tr>
<tr>
<td>North East Scotland Pension Fund</td>
<td>19.4%</td>
<td>Stable</td>
</tr>
<tr>
<td>Tayside Superannuation Fund</td>
<td>17.1%</td>
<td>Stable</td>
</tr>
<tr>
<td>Scottish Borders Pension Fund</td>
<td>18.9%</td>
<td>Stable</td>
</tr>
<tr>
<td>Dumfries and Galloway Pension Fund</td>
<td>21.7%</td>
<td>Stable</td>
</tr>
<tr>
<td>Falkirk Council Pension Fund</td>
<td>22.0%</td>
<td>Increasing</td>
</tr>
<tr>
<td>Fife Council Pension Fund</td>
<td>24.1%</td>
<td>Increasing</td>
</tr>
<tr>
<td>Highland Council Pension Fund</td>
<td>19.7%</td>
<td>Stable</td>
</tr>
<tr>
<td>Orkney Islands Pension Fund</td>
<td>17.6%</td>
<td>Decreasing</td>
</tr>
<tr>
<td>Shetland Islands Pension Fund</td>
<td>20.6%</td>
<td>Stable</td>
</tr>
</tbody>
</table>

Source: 2017 actuarial valuation reports
Good news

- Strong investment performance means that the LGPS in Scotland is holding more assets per £ of pension to be paid in future than ever before.

- The investment return needed on the assets currently held to be able to pay benefits earned has fallen from 4.5% in 2014, to 3.3% at 2017.

- Expected asset returns have also fallen

- Payrolls have fallen relative to liabilities so paying any new deficits with contributions would be harder
Funding the cost of new benefits

Benefits and employee contributions are fixed
How much do new benefits cost?

- Required Return
  - 3.5%
- Desirable Cost
  - 5.2%+

- Corresponding cost
  - 0%
  - 5%
  - 10%
  - 15%
  - 20%
  - 25%
  - 30%
  - 27%
  - 15%
Summary

Past service is well funded...
...but there are still challenges to face:

- Protect past service funding via investments
  - Past service liabilities are large vs payroll

- Cost of the scheme going forward
  - Markets remain uncertain
  - Need to make sure future service is affordable
  - Cost risk for employers
Any questions
Thank you
End of Session 1
Investments

Jacqueline Gillies
Chief Investment Officer
Agenda

• Investment Performance
• Investment Strategy
• Investment Activity
• Direct Investment Portfolio
Investment Performance

Fund performance for year ended 31 March 2018

- Fund Return: 6.0%
- Fund Benchmark: 3.9%
- Actuarial Assumed Return: 3.5%
- Consumer Price Index: 2.5%
- Average Earnings: 2.6%
Investment Performance

Long Term Performance (% p.a.)

3 Year Annualised
4 Year Annualised
5 Year Annualised
6 Year Annualised
7 Year Annualised
8 Year Annualised
9 Year Annualised
10 Year Annualised

- Fund Return
- Fund Benchmark
- Relative Return
- Consumer Price Index
- Average Earnings
Investment Performance

PIRC Local Authority Universe Results (% return p.a.)

Table:

<table>
<thead>
<tr>
<th></th>
<th>1 year</th>
<th>3 years</th>
<th>5 years</th>
<th>10 years</th>
<th>20 years</th>
<th>30 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentile Ranking</td>
<td>8</td>
<td>3</td>
<td>7</td>
<td>18</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>No of Participants</td>
<td>61</td>
<td>61</td>
<td>61</td>
<td>56</td>
<td>53</td>
<td>48</td>
</tr>
</tbody>
</table>
The Fund has adopted a risk-return asset framework as the basis for modelling and agreeing investment strategy.
The current objectives of the investment strategy are to achieve:
• a greater than 2/3 probability of being 100% funded by 2031; and
• a less than 10% probability of falling below 70% funded over the next three years.

<table>
<thead>
<tr>
<th>Asset</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>62.5</td>
<td>52.5</td>
<td>42.5</td>
<td>32.5</td>
</tr>
<tr>
<td>Hedging/Insurance</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Credit</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>S/T Enhanced Yield</td>
<td>15.0</td>
<td>20.0</td>
<td>25.0</td>
<td>30.0</td>
</tr>
<tr>
<td>L/T Enhanced Yield</td>
<td>15.0</td>
<td>20.0</td>
<td>25.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Return (% p.a.)</td>
<td>6.0</td>
<td>5.9</td>
<td>5.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Volatility (% p.a.)</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>
Investment Strategy and Structure
## Investment Performance
### 2017/18

<table>
<thead>
<tr>
<th>Asset</th>
<th>Fund</th>
<th>Benchmark</th>
<th>Relative (+/-)</th>
<th>Allocation 31st March 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>6.1</td>
<td>3.5</td>
<td>2.6</td>
<td>68.6</td>
</tr>
<tr>
<td>Hedging/Insurance</td>
<td>0.7</td>
<td>0.7</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Credit</td>
<td>1.5</td>
<td>1.7</td>
<td>(0.2)</td>
<td>5.4</td>
</tr>
<tr>
<td>S/T Enhanced Yield</td>
<td>2.4</td>
<td>3.5</td>
<td>(1.1)</td>
<td>8.3</td>
</tr>
<tr>
<td>L/T Enhanced Yield</td>
<td>9.3</td>
<td>7.2</td>
<td>2.1</td>
<td>12.4</td>
</tr>
<tr>
<td>Total Fund</td>
<td>6.0</td>
<td>3.9</td>
<td>2.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
# Investment Performance: Equity Manager Summary

<table>
<thead>
<tr>
<th>Manager</th>
<th>Annual Return (%)</th>
<th>Benchmark Return (%)</th>
<th>Relative Return (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal &amp; General</td>
<td>4.1</td>
<td>2.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Baillie Gifford</td>
<td>9.4</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Lazard</td>
<td>4.1</td>
<td>2.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Oldfield</td>
<td>0.9</td>
<td>1.3</td>
<td>(0.3)</td>
</tr>
<tr>
<td>Veritas</td>
<td>0.9</td>
<td>2.4</td>
<td>(1.4)</td>
</tr>
<tr>
<td>Henderson</td>
<td>10.2</td>
<td>6.6</td>
<td>3.4</td>
</tr>
<tr>
<td>JP Morgan</td>
<td>17.2</td>
<td>8.0</td>
<td>8.4</td>
</tr>
<tr>
<td>Genesis</td>
<td>10.1</td>
<td>11.0</td>
<td>(0.8)</td>
</tr>
<tr>
<td>Pantheon</td>
<td>8.8</td>
<td>1.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Partners Group (Private Equity)</td>
<td>11.0</td>
<td>1.2</td>
<td>9.6</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td><strong>6.1</strong></td>
<td><strong>3.5</strong></td>
<td><strong>2.6</strong></td>
</tr>
</tbody>
</table>
## Investment Performance: S/T Enhanced Yield Manager Summary

<table>
<thead>
<tr>
<th>Manager</th>
<th>Annual Return (%)</th>
<th>Benchmark Return (%)</th>
<th>Relative Return (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIMCO</td>
<td>1.1</td>
<td>3.7</td>
<td>(2.5)</td>
</tr>
<tr>
<td>Barings (Multi Credit)</td>
<td>3.8</td>
<td>4.4</td>
<td>(0.6)</td>
</tr>
<tr>
<td>Oakhill Advisors</td>
<td>2.6</td>
<td>4.4</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Barings (Private Debt)</td>
<td>5.3</td>
<td>4.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Alcentra</td>
<td>8.0</td>
<td>4.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Total S/T Enhanced Yield</td>
<td>2.4</td>
<td>3.5</td>
<td>(1.1)</td>
</tr>
</tbody>
</table>
## Investment Performance: L/T Enhanced Yield Manager Summary

<table>
<thead>
<tr>
<th>Manager</th>
<th>Annual Return (%)</th>
<th>Benchmark Return (%)</th>
<th>Relative Return (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTZ</td>
<td>11.2</td>
<td>10.4</td>
<td>0.8</td>
</tr>
<tr>
<td>Partners Group (Real Estate)</td>
<td>3.6</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Total L/T Enhanced Yield</td>
<td>9.3</td>
<td>7.2</td>
<td>2.1</td>
</tr>
</tbody>
</table>
The Fund implemented a strategic currency hedge of 33% of listed equity holdings in September 2017.
Investment Activity: De-Risking

“The objective of the de-risking strategy is to protect the funding level. The strategy is based on a trigger level of 105% funding. If this was achieved a switch of 10% of total assets from growth to income and protection categories would be implemented”.

Strathclyde Pension Fund, Statement of Investment Principles

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Purchase of equity market short futures to value of £2.1bn (10% of total Fund) in December 2017</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Sale of equity positions from 6 equity managers; unwinding of futures positions during Q1 2018</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Re-investment/ commitment of 4% of Fund with Barings, Alcentra, Oak Hill, Ashmore (short term income managers) in Q1 2018; commitment of 1% of Fund to DTZ (long term income); remaining proceeds held in Cash</td>
</tr>
<tr>
<td>Phase 4 (to be completed)</td>
<td>Allocate remaining proceeds from de-risking to new short/ long term income managers</td>
</tr>
</tbody>
</table>
Investment Activity: De-Risking

FTSE All Share Index: 9 months to 31st December 2017
(+8.7%)
Investment Activity: De-Risking

FTSE All Share Index: 3 months to end March 2018 (-6.9%)
Committee has agreed that the Fund should move to ‘Step 2’
Next stage will focus on identifying and implementing a detailed investment structure consistent with ‘Step 2’
Initial focus will be investing de-risking proceeds by identifying suitable managers and/or funds for allocations to absolute return, private debt and infrastructure
## Current Allocations

<table>
<thead>
<tr>
<th>Asset</th>
<th>31&lt;sup&gt;st&lt;/sup&gt; March 2018</th>
<th>31&lt;sup&gt;st&lt;/sup&gt; March 2017</th>
<th>Target allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>56.6</td>
<td>68.6</td>
<td>57.5</td>
</tr>
<tr>
<td>Hedging/Insurance</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Credit</td>
<td>5.9</td>
<td>5.4</td>
<td>6.0</td>
</tr>
<tr>
<td>S/T Enhanced Yield</td>
<td>18.4</td>
<td>8.3</td>
<td>20.0</td>
</tr>
<tr>
<td>L/T Enhanced Yield</td>
<td>13.3</td>
<td>12.4</td>
<td>15.0</td>
</tr>
<tr>
<td>Cash</td>
<td>4.4</td>
<td>3.9</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
DIP investments are typically illiquid, self-liquidating and opportunistic. Focused on investment in Scotland and the rest of the UK, strong fundamentals are usually enhanced by a positive local, economic or ESG (Environmental, Social, Governance) impact which adds value to the investment rationale.

Investments Agreed: 37
Investments Agreed (£m): £902m
Net Asset Value (NAV) 31/03/18 £551m
Total Capacity (5% Max NAV) 31/03/18 £1,040m
# Direct Investment Portfolio Performance

<table>
<thead>
<tr>
<th></th>
<th>Q1 2018 (%)</th>
<th>1 year (%)</th>
<th>3 year (% p.a.)</th>
<th>5 years (% p.a.)</th>
<th>Since Inception (% p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Investment Portfolio</td>
<td>1.5</td>
<td>7.6</td>
<td>9.0</td>
<td>13.7</td>
<td>8.7</td>
</tr>
<tr>
<td>SPF Total Fund Return</td>
<td>-1.8</td>
<td>6.0</td>
<td>10.0</td>
<td>10.1</td>
<td>11.6</td>
</tr>
<tr>
<td>3 mth LiBOR</td>
<td>0.1</td>
<td>0.4</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>DIP Equity</th>
<th>DIP S/T Enhanced Yield</th>
<th>DIP L/T Enhanced Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year %</td>
<td>20.1</td>
<td>-5.3</td>
<td>7.6</td>
</tr>
</tbody>
</table>
Direct Investment Portfolio

During 2017/18, Committee agreed the following new commitments:

- **£20m to Resonance British Wind Energy Income Fund II** to acquire and hold a portfolio of small and medium sized operational, onshore wind farms in the UK
- **£30m to Temporis Operational Renewable Energy Fund II** to invest in UK based wind and solar projects post construction and in the early stages of their operating life
- An additional **£80m to Pensions Infrastructure Platform’s UK Multi-Strategy Fund**
- **£30m to Tosca Debt Fund** to provide secure loans to UK regional business in the lower mid-market
- **£50m to Hermes Infrastructure Fund II** to create a portfolio of direct investment in utilities, renewable energy, transport & social infrastructure assets
- **£50m to Dalmore Capital Fund 3 LP** to generate income from a diversified portfolio of low volatility infrastructure equity assets

Review of the Direct Investment Portfolio arrangements and capacity a priority in the Fund’s 2018/19 business plan.
Summary

- Activity in the year has moved the Fund closer to its strategic objectives of reducing equity exposure and volatility of return over time

- The Direct Investment Portfolio, having been built up consistently over the past 5 years, continues to grow and DIP investments contributing meaningfully to the performance of the Fund overall

- Strathclyde Pension Fund’s investments have grown for the 9\textsuperscript{th} consecutive year: strong returns place it in the top quartile of local authority funds over all short, medium and longer term time periods
Questions?
Responsible Investment

Richard Keery
Investment Manager
• **Guiding Principle**
  - As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios.

• **Active Ownership**
  - The Fund prefers to adopt a policy of risk monitoring and engagement in order to positively influence company behaviour and enhance shareholder value, influence that would be lost through a divestment approach.
  - The Fund's active ownership approach can be divided into four distinct areas:
    - Voting Globally
    - Engagement Through Partnerships
    - Shareholder Litigation
    - Impact Investing
Corporate Governance – Voting

- 61,469 resolutions at 5,024 company meetings
- 100% of total votes lodged (UK & Overseas)
- 85% of votes in support of management

Voting Results 2017/18 United Kingdom
- 95% Votes For
- 5% Votes Against

Voting Results 2017/18 Overseas
- 85% Votes For
- 14% Votes Against
- 1% Abstentions

Voting Results 2017/18 Executive Remuneration
- 79% Votes For
- 21% Votes Against
2017/18 ESG - Engagement topics

- Child labour
- Mine safety
- **Climate change**
- Welfare and sustainability in the cocoa industry
- Executive remuneration
- Water rights
- Farm animal welfare
- Corporate corruption
- Cybersecurity
- The Living wage

- Deforestation
- Fire & Building safety in the Bangladesh garment industry
- UK Corporate Governance Code
- Labour rights
- Protection of endangered species
- Human rights
- Inhumane weapons
- Fossil fuel to renewables
- Tax transparency
- Oil and gas exploration and extraction in the Arctic
- Factory farming emissions
Engagement Through Partnerships

Specialist RI engagement overlay provider focusing on ESG issues linked to international conventions and standards

Collaborative body of 71 LGPS promoting high standards of corporate governance and corporate responsibility

The PRI’s 6 Principles contribute to developing a more sustainable global financial system

IIGCC - collaborative platform to address long-term risks and opportunities associated with climate change

UK charity with a vision of an investment system that serves savers and communities, and protects the environment
Shareholder Litigation

An important part of the Fund’s active ownership is litigation aimed at companies whose illegal activities or negligence have resulted in financial losses.

Goal is to obtain damages and to promote good corporate governance and sound business practices.

- Over US$7 million recovered in US class actions since 2007
- 2017 recovered approximately US$1.6m from 25 US claims
- £1.3m recovered from UK High Court litigation against RBS
- Lead Plaintiff in US class action against PlyGem Holdings Inc.- $26m settlement obtained for investors
- 2017 extended class action claims to Australia
Impact Investing

Direct Investment Portfolio
Over £700m committed to renewables and Infrastructure
“But for the sake of our children and our future, we must do more to combat climate change.”

— President Barack Obama, State of the Union, Feb. 12, 2013

Climate change

2 degrees

That's the amount the planet will be allowed to warm. Leaders of the world's eight richest economies have agreed to the historic deal setting 2 degrees Celsius as the maximum limit for global temperature rise.

Give me clean, beautiful and healthy air - not the same old climate change (global warming) bullshit! I am tired of hearing this nonsense.

Donald J. Trump
@realDonaldTrump
1:44 AM - 29 Jan 2014

RETWEETS 336  LIKES 366
**The Guardian**

Millions wiped off UK local government pensions due to coal crash, analysis shows

Members of the scheme would each be hundreds of pounds better off if funds had been divested from fossil fuels, say campaigners

**The Herald**

20th September 2015

Public sector pension funds in Scotland ploughing £1.7bn into 'dirty investments'

**Protest over pension fund**

A DEMO is being held in Glasgow urging a pension fund to cut ties with the fossil fuel industry.

Campaigners say Strathclyde Pension Fund has made £26 million in losses because of the ongoing oil crash and collapse of the coal industry.

Campaigners are now demanding that the fund cuts ties with the fossil fuel industry.

Fund managers were asked to review the feasibility of divesting the fund from oil, coal and gas companies but this was rejected.

A protest has been planned for June 21 at 9am at the steps at Glasgow Royal Concert Hall.

**UK council pension funds invest over £16 billion in climate-wrecking fossil fuels**

Local authorities urged to end investments in climate-changing dirty fuels: gas, coal and oil.
Case Study – Rio Tinto

Dear @GlasgowCC please stop bankrolling these climate-wreckers
Time to #Divest & stop #FuellingTheFire via @platformlondon
platformlondon.org/2017/11/09/cou ...

STRATHCLYDE PENSION FUND

<table>
<thead>
<tr>
<th>Investment</th>
<th>Amount (GBP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIO TINTO ORD GBP0.10</td>
<td>79,646,267</td>
</tr>
</tbody>
</table>

UK local authorities
£14 billion of their pension funds invested in fossil fuel companies

Greater Manchester
Strathclyde
West Yorkshire
752m
671m
Rio Tinto v FTSE All Share
Renewable Energy

- Weipa 6.7MW (PV) solar farm in Queensland Australia
- 224MW Chute-du-Diable hydroelectric plant Quebec
- Rio Tinto is the largest private sector producer of hydroelectricity in Canada.
Renewable Energy - Lithium

- Jadar Lithium project Serbia
- 136 million tons of declared resources - one of the largest lithium deposits in the world.

Lithium is used in batteries for hybrid and electric cars.
Aluminium

- Major producer of Aluminium
- 3.5 million tons per annum.
Aluminium

- Tesla Model S body and chassis are built almost entirely of aluminium
- Aluminium is the predominant material in solar and photovoltaic panel frames
Aluminium

- Zero Carbon Aluminium Smelting
- Rio Tinto, Alcoa and Apple - Government of Canada and Quebec
- Eliminates all direct greenhouse gases and produces pure oxygen

This could be the biggest advance in aluminum production in 130 years

Apple Backs a New Joint Venture for Zero-Carbon Aluminium Smelting
The “revolutionary” new process could further reduce life-cycle emissions for clean energy technologies.

New technology could slash carbon emissions from aluminium production
Development could transform how one of the world’s most common materials is made
Decarbonising

Weight of Holdings Owning Thermal Coal

<table>
<thead>
<tr>
<th>Year</th>
<th>SPF</th>
<th>Rio Tinto</th>
<th>MSCI Ind. 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>0.8%</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>1.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPF v MSCI ACWI
Engagement – Rio Tinto

- Grasberg mine open pit - tailings management vs riverine disposal
- 240,000 tonnes per day of heavy metal rich waste tailings - 170 km long zone of impact
- Dialogue with **GES** since 2009 - revised mine waste policy published in 2012
- Commitment not to use riverine tailings disposal in future
- Other labour, safety, security and social issues
Renewable Energy 100 Collaborative initiative supporting companies that make a public pledge to switch to 100% renewable electricity.

Industry 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.

Committed to 100% electricity from renewable sources by 2030. Interim target of 65% renewable electricity by 2020

Committed to run manufacturing facilities on 100% renewable power by 2020. Already achieved net zero energy at its head office in Ireland

Committed to powering its global operations with 100% renewable electricity by 2030
Energy Productivity 100 - Global collaborative initiative supporting businesses that commit to double energy productivity and maximize the economic output of energy used

By focusing on energy productivity outcomes, corporates can reduce their own energy demand and significantly contribute to reducing energy demand globally

Companies pledging to double energy productivity by 2030
Climate Change Initiatives

**Electric Vehicle 100** - bringing together companies committed to accelerating the transition to electric vehicles (EVs) and electric transport by 2030

Electric transport offers a major solution in cutting millions of tons of greenhouse gas emissions per year, as well as curbing transport related air and noise pollution

Companies committed to supporting the transition to EV
Climate Change Initiatives

• **CDP Carbon Action** - Collaborative initiative to accelerate company action on carbon reduction and energy efficiency activities

• **CDP Water** – Asks companies to provide data about their efforts to manage and govern freshwater resources

• **CDP – Forests** – Asks companies to provide data on their efforts to stop deforestation

• **IIGCC** - Collaborative platform to encourage public policies, investment practices and corporate behaviour that address long-term risks and opportunities associated with climate change
The Asset Owners Disclosure Project

Global Climate 500 Index

Rates the world’s 500 largest asset owners on their success at managing climate risk within their portfolios.

Strathclyde Pension Fund is ranked at 38 out of the 500 asset owners surveyed in the 2017 Global Climate 500 Index and is the top ranked LGPS.

Improvement due to carbon footprinting, climate change engagement initiatives and investment in renewable energy through the Direct Investment Portfolio.
Principles for Responsible Investment

2017 PRI assessment report
The PRI assessment report is compulsory for all asset owner and investment manager signatories and demonstrates how a signatory has progressed in its implementation of the Principles year-on-year

Overall score A+ - over 3 assessed modules bands A – E
- **Strategy and Governance** A+ (30 out of a maximum 30 from 10 indicators)
- **Indirect Listed equity**: A (38 out of a maximum 42 from 14 indicators)
- **Direct Listed equity-active ownership**: A+ (23 out of a maximum 27 from 9 indicators)

2017 - Fund’s best PRI survey outcome - scoring the maximum possible A+
Questions?
Overview

The investor voice on climate change
Institutional Investors Group on Climate Change – who we are

- IIGCC is an investor-led network of 155 asset owners and managers. From 11 European countries, together we represent over €21 Trillion in assets.

- **Ten investors sit on IIGCC’s Board** which sets IIGCC’s strategic direction. Many active members lead or participate in our programmes.

- The Board has set a simple vision for IIGCC to work toward: **Investors taking action for a prosperous, low carbon future.**

- IIGCC’s mission is to **mobilise capital for the low carbon future by amplifying the investor voice and collaborating with business, policy makers and fellow investors.**

- IIGCC does this by providing 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.
Our programmes – what we do

IIGCC’s Mission is to mobilise capital for the low carbon future by amplifying the investor voice and collaborating with business, policy makers and our fellow investors. We implement it through four programmes:

**Policy**
Activities:
- Global policy
- EU policy
- Brexit
- National issues

**Corporate**
Activities:
- Best practices.
- Engagement
- Resolutions

**Investor Practices**
Activities:
- Governance
- Strategy
- Disclosure

**Property**
Activities:
- Best practices
- Engaging with real estate companies
- Building policy
Corporate Programme

Programme overview
The programme provides market leading resources for investors to assess company strategies on climate change and facilitates collaborative shareholder engagement with companies. At the heart of the programme has been the development of sector specific ‘Investor Expectations Guides’ which have been produced by investors to set out for companies how they should be addressing climate risk and opportunity.

Activities

• **Best practices**: Workshops, roundtables and guidance development on the resilience of different sectors to the transition to a low carbon economy.

• **Engagement**: Collaborative engagement with more than 40 companies across Europe. Investors with over €8Tn participate in this group. IIGCC is also coordinating the global Climate Action 100+ initiative.

• **Resolutions**: Coordinating shareholder resolution activity in Europe and helping investors understand which US resolutions to support (Aiming4A has been incorporated into the group).
Investor Practices Programme

Programme overview

New in 2017, the programme helps investors identify and manage climate-related risks and opportunities while providing guidance on how investors can meet provide market leading disclosures.

Activities

**Governance**: working with boards, trustees and senior management to understand and manage climate-related risks and opportunities.

**Strategy**: Developing strategic tools and metrics to enable owners and managers to address climate risk and opportunity in their portfolios.

**Disclosure**: Providing guidance to investors on implementation of the TCFD recommendations.
Investor Practices – state of play and future plans

Official support for the TCFD recommendations has grown 20% in the first half of 2018 - and Europe is taking the lead.

Legislators are increasingly identifying climate risk, investment and reporting as priority areas for policy and regulation.

- Governance
  - Addressing Climate Risk in Investment Portfolios

- Strategy, tools and metrics
  - Climate Scenarios

- Disclosure
  - Applying the TCFD Recommendations
### Policy Programme

#### Programme overview
The programme develops investor positions on policy and regulatory frameworks at international, regional (EU) and occasionally at national level. The group also develops more detailed letters, statements and reports on issues ranging carbon pricing to autos regulation to a sustainable financial system. IIGCC also co-ordinates the global policy work of the Investor Agenda.

#### Activities

**Global policy:** Supporting the Paris Agreement and TCFD. Close dialogue with the UNFCCC, IEA, OECD, G7/G20 and the UN Secretary General’s office. Investor events at COPs. Co-ordination of global policy collaboration with other investor organisations i.e. the Global Investor Statement

**EU policy:** Ensuring the investor view is understood and reflected in priority negotiations:
- *Climate Change:* 2050 strategy, EU ETS, and vehicle emissions
- *Energy:* energy efficiency, renewables, governance of the Energy Union
- *Sustainable finance:* taxonomy, investor duties, disclosure, benchmarks

**Other issues:** Brexit developments; national issues; countering corporate lobbying
Policy – recent activity

- European Parliament hearing on vehicle emissions
- Joint WWF webinar on 2050 strategies
- COP23
- Global Investor Statement
- Lobbying in Brussels on buildings
- Writing to Ministers
- Meeting Espinosa
- Energy op eds
- COP23
Business case: how does IIGCC benefit its members?

Joining IIGCC gives members a number of clear advantages:

**Access** – Invitations to speak and attend high-level events and meetings with policy makers. IIGCC receives direct invitations to climate and energy policy meetings hosted by the European Commission, European Parliament and national governments offering opportunities for member participation.

**Knowledge sharing** – Regular webinars, thought leadership research and events provide opportunities to hear expert guidance on how to assess and manage the risks and opportunities of climate change and climate policy.

**Influence** – When IIGCC members speak together, they influence decision makers. Our collaborative engagements have a track record of delivering meaningful change at major companies.

**Distinction** – Membership demonstrates to clients and beneficiaries effort to deepen understanding of risks and opportunities associated with climate change and to manage these in investment processes.
Questions?
Governance

Richard McIndoe
Director SPFO
• SPFO Governance Update

• Review of the Structure of the Scottish Local Government Pension Scheme (LGPS)
Strathclyde Pension Fund Governance

SPF
Pension Board

SPF COMMITTEE

Committee
Sounding
Board

Exec. Director of
Finance Services

Actuary

Investment Consultants

Investment Advisory Panel

Auditors

Investment Managers

STRATHCLYDE
PENSION FUND OFFICE
Strathclyde Pension Fund Committee

Allan Gow (Convener)

Ken Andrew

Christina Cannon

Norman MacLeod (Vice-Convener)

Mandy Morgan

Euan Blockley

Martha Wardrop

Philip Braat
Responsibilities

Assisting the Scheme Manager in securing compliance with:
- Regulations and other legislation
- Requirements of the Pensions Regulator

Meetings

“A Pension Board is to meet at the same place and at the same time as the Pension Committee to consider the same agenda. The Chair of the Pension Committee is entitled to act as chair of that meeting.”

LGPS Governance Regulations 2015
LGPS (Scotland) – Governance Model

MANDATORY ROLES

Responsible Authority
(Scottish Ministers)

Scheme Managers
(Administering Authorities)
- Glasgow City Council
- City of Edinburgh Council
- Aberdeen City Council
- Dundee City Council
- Scottish Borders Council
- Dumfries & Galloway Council
- Falkirk Council
- Fife Council
- Highlands Council
- Orkney Islands Council
- Shetland Islands Council

Scheme Advisory Board

OTHER STAKEHOLDERS

Employers

Other Advisors
(E.g. actuaries, audit)

LGPC, CIPFA, PLSA etc.

COSLA

SPPA

GAD

The Pensions Regulator

Pension Boards

Scheme Member
Review of LGPS Structure

24 January 2018

Dear Dave and Jonathan

REVIEW OF LGPS STRUCTURE

Thank you and your colleagues for the work and commitment which has gone into the production of the report on the structure of LGPS pension funds. As you know, I support any work which will lead to greater collaboration between the funds and I appreciate the way in which the report has identified a sensible range of options for consideration.

I can confirm that I would be grateful if the LGPS Advisory Board would consider on the future structure of the scheme based on the options you have identified:

- Status quo of eleven funds in Scotland.
- Retain the eleven funds, but with closer collaboration.
- One or more common investment pools.
- Merge the funds into one or more new funds.

I have asked Lorimer MacKenzie, Acting Director of Policy at GPPA, to coordinate work with you and I look forward to hearing the recommendations which arise from the consultation.

DEREK MACKay

St Andrew’s House, Regent Road, Edinburgh EH1 3DG
www.gov.scot
Review of LGPS Structure

The options:

- Retain the current structure with 11 funds
- Promote cooperation in investing and administration between the 11 funds
- Pool investments between the 11 funds
- Merge the 11 funds into one or more new funds
Review of LGPS Structure

<table>
<thead>
<tr>
<th>The options:</th>
<th>The criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Retain the <strong>current structure</strong> with 11 funds</td>
<td>▪ Cost of investing</td>
</tr>
<tr>
<td>▪ Promote <strong>cooperation</strong> in investing and</td>
<td>▪ Governance</td>
</tr>
<tr>
<td>administration between the <strong>11 funds</strong></td>
<td>▪ Operating risks</td>
</tr>
<tr>
<td>▪ <strong>Pool investments</strong> between the <strong>11 funds</strong></td>
<td>▪ Infrastructure investment</td>
</tr>
<tr>
<td>▪ <strong>Merge the 11 funds into one or more</strong></td>
<td></td>
</tr>
<tr>
<td>new funds</td>
<td></td>
</tr>
</tbody>
</table>
# Review of LGPS Structure

**The options:**

- Retain the **current structure** with **11 funds**
- Promote **cooperation** in investing and administration between the **11 funds**
- Pool investments between the **11 funds**
- Merge the **11 funds** into **one or more new funds**

**The criteria:**

- **Cost of investing**
- **Governance**
- **Operating risks**
- **Infrastructure investment**

**The timeline:**

- **Launch:** 18\(^{th}\) June 2018
- **Launch event:** 27\(^{th}\) June 2018
- **Consultation closes:** 7\(^{th}\) December 2018
- **Report:** April 2019
What Government Asked For –

The Criteria

a) Scale – “half a dozen” pools; >£25bn
b) Strong governance & decision making
c) Reduced costs & provision of excellent value for money
d) Improved capacity & capability to invest in infrastructure

LGPS England & Wales
- DB Scheme of the Year
- DB Communications
- Best use of Alternatives

LAPF Investments Awards

For local authority pension funds and their advisers - Best Investment Strategy
Questions?