# Navigator

Version 2.37

## Funding projection as at 31 October 2013
## Falkirk Council Pension Fund

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**for and on behalf of Hymans Robertson LLP**

**6 November 2013**

**Important note**
**Accuracy of funding projections**
The projections presented in this report reflect, on an approximate basis, movements in market conditions from time to time. Where market movements, in particular market yields and future inflation expectations, have diverged materially (i.e. by over 1% per annum) from the opening figures or where investment market conditions are particularly volatile, the results presented in this report might diverge from the underlying position by more than would normally be the case.

The only way to accurately assess the position is to undertake a full actuarial valuation.

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Actuarial funding update

## Contents:

## Executive summary

**Purpose**

I have been instructed to undertake a funding update for the Falkirk Council Pension Fund ("the Fund"). The starting point for this update is the formal valuation of the Fund carried out as at 31 March 2011. This funding update is produced for Falkirk Council as Administering Authority to the Fund.

**Method**

The update has been prepared on an approximate basis, using a roll forward approach. The roll forward allows for actual Fund returns up to 30 September 2013 and index returns from 1 October 2013 to 31 October 2013. Further details of the method are set out in Appendix 1.

**Results**

At the formal valuation as at 31 March 2011, the funding level (i.e. the ratio of assets to liabilities) assessed on the ongoing funding basis was 86.1%.
The funding level at 31 October 2013, on the ongoing funding basis, is estimated to be 83.9%.
I have explained below separately how assets and the liabilities have moved since the valuation date leading to the fall in funding level.

**Assets**

After a sharp fall in the 6 months after the valuation date, the Fund assets have performed better than assumed returning c.23.0% in the period from 1 April 2011 to 30 September 2013. The formal valuation assumed that the Fund assets would return 15.4% in a 30 month period. Please note that these figures relate to **investment return only**, the total increase in the asset value from 31 March 2011 to 31 October 2013 is 34.5% which is a result of both investment income **and** positive net cashflows in to the Fund.

**Liabilities**

The value placed on the liabilities has risen as a result of falling gilt yields. The liabilities are benchmarked against gilt yields, which have fallen from 4.4% at the valuation date to 3.4% as at 31 October 2013. In the same period our measure of CPI inflation has also fallen from 2.8% to 2.6%. The real discount rate (net of inflation) has fallen by 0.8% which has increased the value placed on the liabilities by around 20-25%. However since 31 March 2013 we have seen an increase in gilt yields in a decrease in liabilities since our last funding update.

When taken together, the net effect of the movement in the liabilities and assets is a fall in the funding level from 86.1% to 83.9%.

The next formal valuation of the Fund will take place as at 31 March 2013. This will take into account the membership experience of the Fund since 31 March 2011 and the assumptions used will also be reviewed at this time.

I look forward to discussing this funding update with the Administering Authority

Julie Morrison FFA

## Estimated projection of funding position as at 31 October 2013

### Summary of funding position:

The projection of the funding level since the latest formal actuarial valuation as at 31 March 2011 is shown below.

| Date | 31 Mar 2011 £m | 31 Mar 2013 £m | 31 Oct 2013 £m |
|---|---|---|---|
| **Liabilities - Ongoing Basis** | | | |
| | | | |
| **Assets** | 1,199 | 1,513 | 1,613 |
| **Liabilities** | 1,392 | 1,930 | 1,923 |
| **Surplus/(deficit)** | (194) | (417) | (310) |
| **Funding level** | 86.1% | 78.4% | 83.9% |

### Key assumptions and financial indicators:

| Date<br>Discount rate | 31 Mar 2011 p.a. | 31 Mar 2013 p.a. | 31 Oct 2013 p.a. |
|---|---|---|---|
| **- Pre-ret.** | | | |
| Nominal | 5.9% | 4.6% | 4.9% |
| Real | 2.3% | 1.3% | 1.5% |
| **- Post-ret.** | | | |
| Nominal | 5.9% | 4.6% | 4.9% |
| Real | 2.3% | 1.3% | 1.5% |
| | | | |
| **Sal. Escalation**** | 5.1% | 4.8% | 4.9% |
| | | | |
| **(A): FIGs** | 4.4% | 3.0% | 3.4% |
| **(B): ILGs** | 0.7% | -0.3% | 0.0% |
| **(C): Inflation** | 3.6% | 3.3% | 3.4% |
| **(D): AA corp.** | 5.5% | 4.1% | 4.2% |
| **(E): AA spread** | 1.2% | 1.1% | 0.8% |
| **(F): AOA** | 1.6% | 1.6% | 1.6% |
| | | | |
| **FTSE All Share** | 3,067.7 | 3,380.6 | 3,585.3 |
| **FTSE 100** | 5,908.8 | 6,411.7 | 6,731.4 |

*(A) : Annualised UK govt. fixed interest gilt yield (over 15 years)*

*(B) : Annualised UK govt. index-linked gilt yield (over 15 years, 3% inflation)*

*(C) : Implied RPI inflation derived from (A) - (B) **

*(D) : Annualised iBoxx AA rated corporate bonds (over 15 years)*

*(E) : Credit risk spreads derived from (D) - (A)*

*(F) : Asset outperformance assumption pre-retirement assumed to be constant throughout the projection period and expressed relative to fixed interest gilt yields*

** pension increases based on CPI inflation derived from (C) - 0.8%*

*** salary increases are 1% p.a. until 31 March 2013 before reverting to the long-term rate shown*

## Estimated financial position on alternative bases

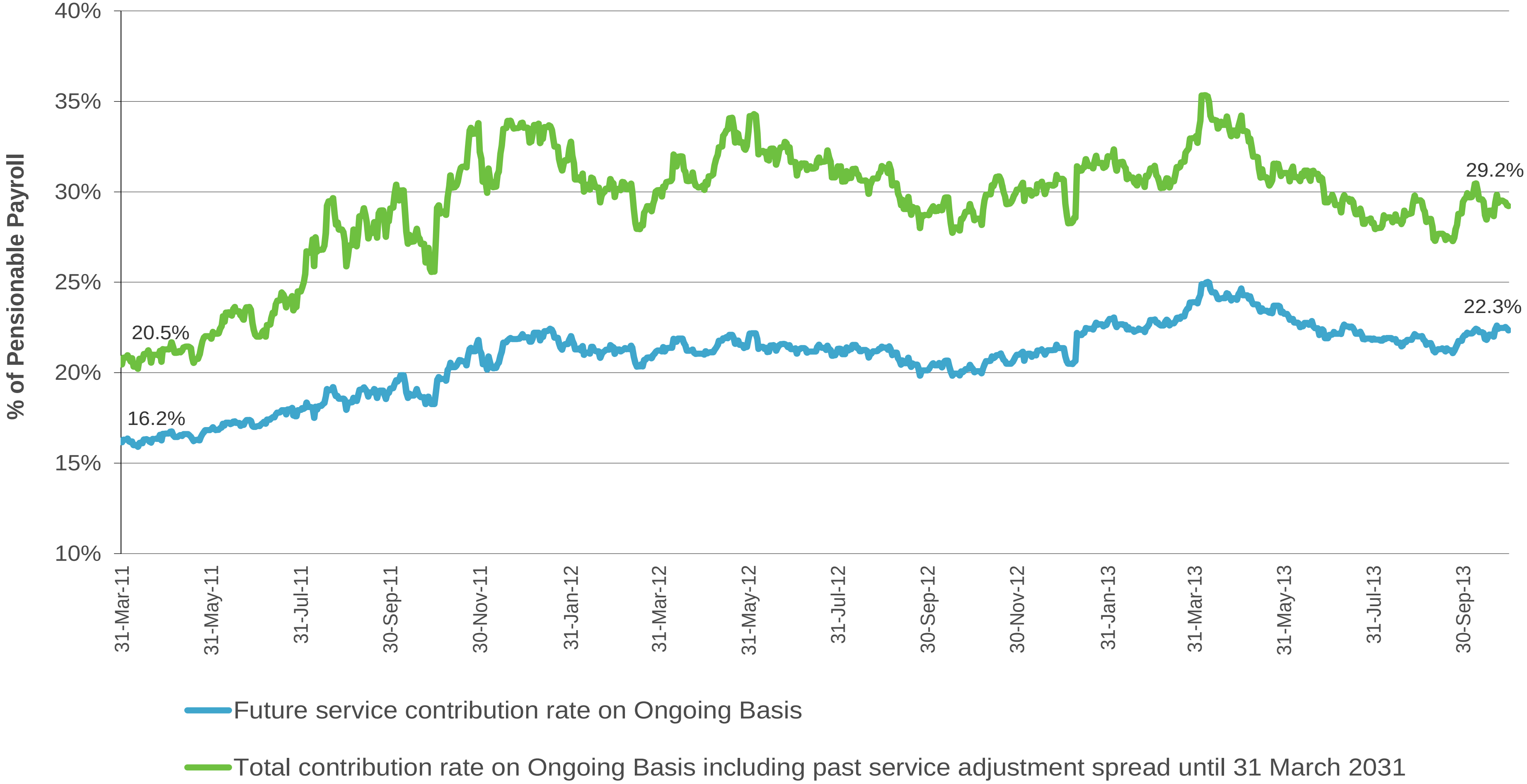
| Date | 31 Mar 2011 £m | 31 Mar 2013 £m | 31 Oct 2013 £m |
|---|---|---|---|
| **Liabilities - Gilts Basis** | | | |
| | | | |
| **Assets** | **1,199** | **1,513** | **1,613** |
| **Liabilities** | **1,877** | **2,589** | **2,571** |
| **Surplus/(deficit)** | **(678)** | **(1,076)** | **(958)** |
| **Funding level** | **63.9%** | **58.4%** | **62.7%** |

**Key assumptions:**

| Discount rate | p.a. | p.a. | p.a. |
|---|---|---|---|
| **- Pre-ret.** | | | |
| Nominal | 4.3% | 3.0% | 3.3% |
| Real | 0.7% | -0.3% | -0.1% |
| **- Post-ret.** | | | |
| Nominal | 4.3% | 3.0% | 3.3% |
| Real | 0.7% | -0.3% | -0.1% |
| | | | |
| **Sal. escalation** | 5.1% | 4.8% | 4.9% |

## Estimated projection of funding level from 31 March 2011 to 31 October 2013

**Estimated progression of employer's contribution rate from 31 March 2011 to 31 October 2013**



## Attribution analysis

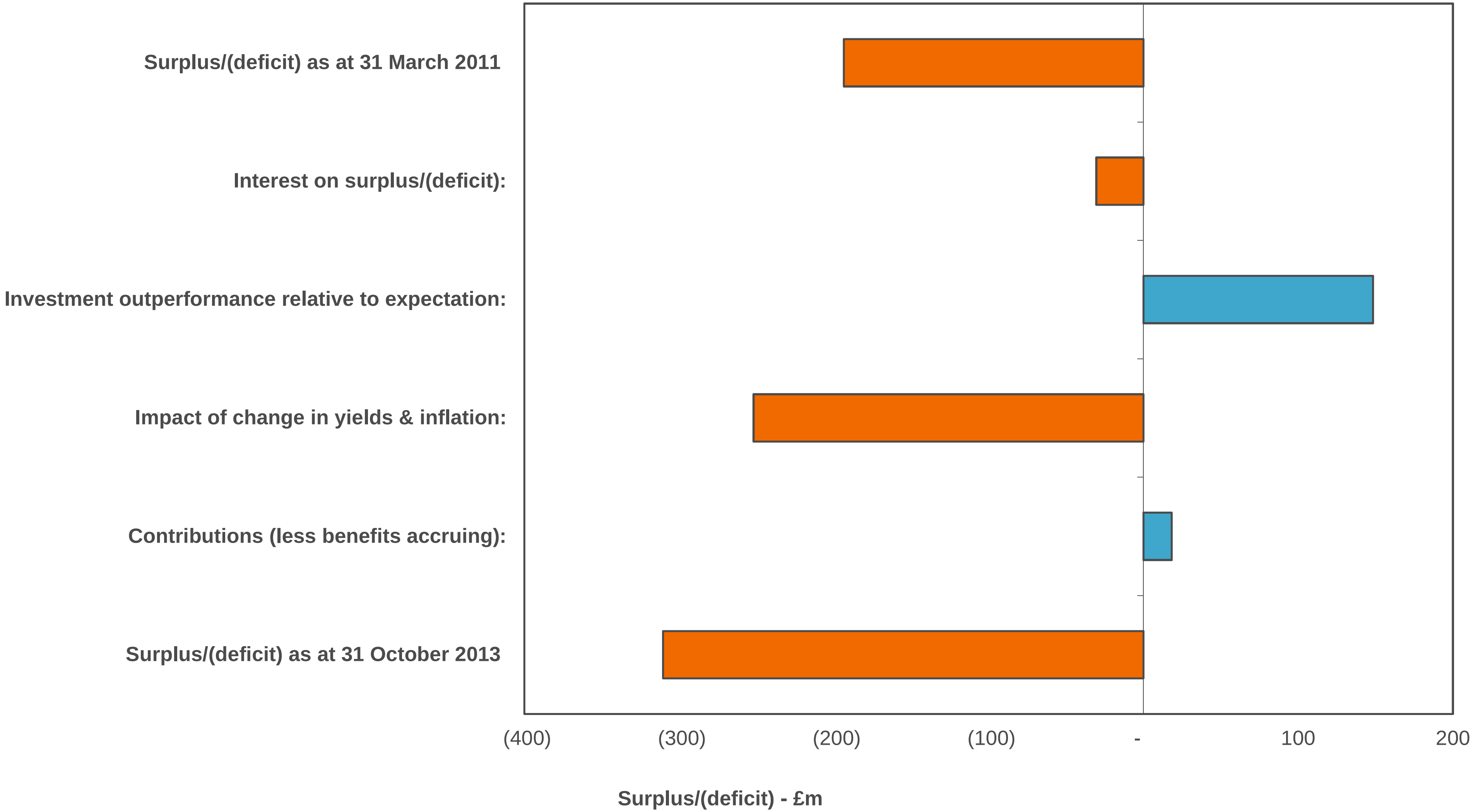
| | £m | |
|---|---|---|
| **Asset value as at 31 March 2011** | | **1,199** |
| | | |
| Contributions paid in: | 162 | |
| | | |
| Benefit payments: | (92) | |
| | | |
| Investment returns: | 344 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| **Asset value as at 31 October 2013** | | **1,613** |

| | £m | |
|---|---|---|
| **Liability value as at 31 March 2011** | | **1,392** |
| | | |
| Cost of benefits accruing: | 144 | |
| | | |
| Interest on liabilities: | 227 | |
| | | |
| Impact of change in yields & inflation: | 252 | |
| | | |
| Benefit payments: | (92) | |
| | | |
| | | |
| | | |
| **Liability value as at 31 October 2013** | | **1,923** |

| | £m | |
|---|---|---|
| **Surplus/(deficit) as at 31 March 2011** | | **(194)** |
| | | |
| Interest on surplus/(deficit): | (30) | |
| | | |
| Investment outperformance relative to expectation: | 148 | |
| | | |
| Impact of change in yields & inflation: | (252) | |
| | | |
| Contributions (less benefits accruing): | 18 | |
| | | |
| | | |
| | | |
| **Surplus/(deficit) as at 31 October 2013** | | **(310)** |

*Please note that figures in this schedule and the chart on the next page are estimates only.*

## Attribution analysis



## Sensitivity matrix

| Fixed Interest Gilt, semi-annual yield (% p.a.) | 5,950 | 6,200 | 6,450 | 6,731 | 6,950 | 7,200 | 7,450 |
|---|---|---|---|---|---|---|---|
| 3.80 | 82% (314.0) | 85% (266.9) | 88% (219.8) | 91% (166.7) | 93% (125.5) | 96% (78.3) | 98% (31.2) |
| 3.65 | 80% (361.4) | 83% (314.3) | 85% (267.2) | 88% (214.1) | 90% (172.9) | 93% (125.7) | 96% (78.6) |
| 3.50 | 78% (410.5) | 81% (363.3) | 83% (316.2) | 86% (263.1) | 88% (221.9) | 91% (174.7) | 93% (127.6) |
| 3.36 | 76% (457.7) | 79% (410.6) | 81% (363.4) | 84% (310.4) | 86% (269.1) | 88% (222.0) | 91% (174.8) |
| 3.20 | 74% (513.6) | 76% (466.4) | 79% (419.3) | 82% (366.2) | 84% (325.0) | 86% (277.8) | 88% (230.7) |
| 3.05 | 72% (567.8) | 75% (520.6) | 77% (473.5) | 79% (420.4) | 81% (379.2) | 84% (332.1) | 86% (284.9) |
| 2.90 | 70% (623.9) | 73% (576.7) | 75% (529.6) | 77% (476.5) | 79% (435.3) | 82% (388.1) | 84% (341.0) |

Equity – FTSE 100 price index (proxy)

**31 October 2013 Projection**

84%
(310.4)

All amounts are in £m

The starting point for this sensitivity matrix is the projected results as at 31 October 2013 on the Ongoing Basis.

The funding position is sensitive to changes in equities and bond yields and the funding graph reflects this based on historic market conditions.

The above table shows the impact of future changes in the bond yields (which affect the liabilities) and equities (using the FTSE100 Index as a proxy for equity markets generally both in the UK and overseas). The calculations assume that these changes occur immediately. In practice any changes will occur over time and the actual funding level will therefore also be affected by further benefit accrual, contributions and differences between expected and actual investment returns. Crucially, the calculations assume that all other factors and assumptions remain unchanged. In particular, the impact of the change in bond yields assumes that the implied inflation assumption remains unchanged. However, the liabilities are more sensitive to changes in real bond yields (i.e. net of assumed future inflation) rather than the nominal bond yield.

## Appendix 1: Reliances and limitations

### Reliances and limitations

In projecting forward the valuation results, a number of assumptions are made with regard to actual experience. As such, the accuracy of the projection declines over time. We would expect our projectionof the funding level to be within +/-2% of the underlying position for each year of projection. However, greater differences are possible, particularly if there have been volatile financial market movements or significant membership changes (especially if the scheme is small and individual member movements affect the funding position of the scheme). It is not possible to fully assess the accuracy of these projections without carrying out a full actuarial valuation.

### The projection allows for:

(1) movements in the value of the assets as measured by manager performance and index returns;
(2) movements in liabilities as a result of changes in bond yields and hence inflation and discount rate assumptions;
(3) estimated cash-flows (contributions and benefit payments); and
(4) expected accrual of benefits for employee members from their service accrued since the latest valuation date (estimated based on the salary roll as at the latest valuation).

### The projection does not allow for:

(1) changes in the mix of assets held since the last valuation;
(2) variations in liabilities arising from salary rises, deferred pension revaluation or pension increases differing from those assumed in the valuation;
(3) changes in the salary roll of employee members;
(4) variations between actual and expected demographic experience (e.g. on withdrawals or mortality); and
(5) changes in the asset outperformance assumption.

This actuarial funding update report is provided solely for the purposes of illustrating the projected funding position(s). It should not be used for any other purpose. It should not be released or otherwise disclosed to any third party except with our prior written consent, in which case it should be released in its entirety. Hymans Robertson LLP accept no liability to any third party unless we have expressly accepted such liability in writing.

### Investment indices and yields used

The analysis set out in this report is prepared from and based upon external market data sources that we believe to be reliable but the accuracy of which cannot be guaranteed. The assets of the scheme are projected using benchmark indices which to the best of our understanding are indices that will closely replicate the performance of the scheme's assets. The performance of the scheme's assets will, at times, be different from our projections and the difference may be material to our projections. Where the investment data is available, we have allowed for investment manager under/out-performance.

### Compliance with professional standards

The method and assumptions used to project the updated funding position are consistent with those used in the latest formal actuarial valuation, although the financial assumptions have been updated to reflect changes in financial conditions since the valuation. As such, the advice in this report is consistent with that contained in the latest formal valuation report.

This report also complies with the Technical Actuarial Standards on reporting (TAS R), Data (TAS D), Modelling (TAS M) and Pensions (TAS P). It forms an aggregate report when combined with the report on the latest formal funding valuation of the scheme.

## Appendix 2: Benchmark indices and basis yields

**Benchmark Indices**
- FTSE 100
- FTSE 250
- FTSE Small Cap
- FTSE All Share
- FTSE All World Series North America (£)
- FTSE All World Series Japan (£)
- FTSE All World Series Developed Europe (£)
- FTSE All World Series Developed Asia Pacific (£)
- FTSE All World Series All World Developed Ex UK (£)
- FTSE All World Series All World Ex UK (£)
- FTSE All World Series All Emerging (£)
- UK Government Fixed Interest Gilts (Over 15 Years)
- UK Government Index-Linked Gilts (Over 5 Years)
- UK Government Index-Linked Gilts (Over 15 Years)
- iBoxx A rated UK Corporate Bonds (Over 15 Years)
- iBoxx AA rated UK Corporate Bonds (Over 15 Years)
- iBoxx AAA rated UK Corporate Bonds (Over 15 Years)
- iBoxx All Investment Grades rated UK Corporate Bonds (Over 15 Years)
- IPD Property
- Cash Indices LIBOR 1 Month

All indices used to project asset values are total return indices. However, any figures quoted in this report are from price indices as these are more widely recognised.

Some of the above indices have been used to track movements in the value of the assets. The indices are a standard list and not necessarily the same indices that the managers have been asked to track or beat. Some asset classes are not easily tracked by these benchmarks and therefore other approximations have had to be used in this projection leading to greater differences than the +/-2% per year from the true underlying position stated in Appendix 1.

Some of the following yields are used in the projection of the liabilities.

**Basis Yields**
- iBoxx AA rated UK Corporate Bond Over 15 Year Yield
- FTSE Actuaries Index-Linked Gilts (3% Inflation) Yield (Over 15 Years)
- FTSE Actuaries UK Government Fixed Interest Gilts Yield (Over 15 Years)