KPMG

cutting through complexity™

Association of Colleges

Enhanced Pension Provisions

4 August 2015

Enhanced pension provisions

The net interest rate (NIR) is used to set the financial basis for valuing unfunded pensions

Introduction

- This paper sets out comments on the review of the basis for valuing enhanced (unfunded) pensions granted by employers to employees to enable suitable provisions to be included on the employer's financial statements as at 31 July 2015. It should be read in conjunction with the previous paper issued on 6 August 2013 in relation to the 2013 review of basis.
- The paper has been prepared for the Association of Colleges by actuaries employed by KPMG Pensions.
- The work carried out for this exercise is compliant with the relevant standards in force published by the Financial Reporting Council. In particular the standards for Reporting Actuarial Information (TASR), Data (TAS D), Modelling (TAS M) and the Pensions TAS have been followed insofar as their requirements are material for this report.

Methodology for deriving the net interest rate (NIR)

- It is proposed that the general method of deriving the NIR is amended to better reflect variations in the possible levels of long term inflation and variation in the duration of the liabilities.
- The revised formula for setting the financial assumptions is:

  NIR = B – I *rounded to the nearest 0.25%*

  - B is determined from the over 10 year iBoxx corporate bond yield
  - I is determined from the Bank of England implied spot inflation curve, at a term of 10 years
- A qualitative approach will be adopted, where necessary, to adjust the NIR for distortions in market conditions that may occur at particular times. At 31 July 2015, allowance has been made for a 0.2% inflation risk premium.

Mortality assumption

- The mortality tables have been updated from S1 CMI 2013 1.25% future improvements to S1 CMI 2014 1.25% future improvements.
- This change in mortality assumption will typically tend to slightly decrease calculated liabilities although the effect varies by the member's age. For example this will reduce the life expectancy of a pensioner aged 65 by 0.1 years. We recommend this assumption remains under review in the light of future emerging evidence on mortality experience.

Demographic assumptions have been updated to reflect census evidence and general market practice

Proportions of members married and age difference between member and spouse

- Census evidence justifies a change in the proportions married assumption which affects the valuation of contingent benefits payable on the death of an original pensioner to a qualifying dependant.
- We have therefore adjusted the previous assumption to the sliding scale shown in Appendix 1. This has the effect of reducing the liabilities for all members, compared with the assumptions used previously.
- We have updated the assumed age differences between the member and spouse, so that males are assumed to be on average three years older than females (previously the age difference was assumed to be nil). Compared with the previous assumption, this has the effect of increasing the liabilities for male members and decreasing the liabilities for female members.

Overall results

- Taking into account market conditions at 31 July 2015 close, **the NIR is calculated at 1.75%** (2014 2.25%).
- The interest rate (for the purpose of calculating the interest cost in the disclosures) is 3.46% (2014 4.06%).

Enhanced pension provisions

Over the year, corporate bond yields, gilt yields and real yields have reduced

Financial experience over the last year

The table below shows the relevant published yields for determining the NIR.

Year End	31 July 2014	31 July 2015
10 year gilt yield	2.71%	n/a
15 year gilt yield	3.05%	
Over 5 year index-linked gilt yield (0% inflation)	-0.12%	
Over 5 year index- linked gilt yield (5% inflation)	-0.16%	
Bank of England 10 year inflation	n/a	2.91%
iBoxx over 10 year AA corporate bond yield	4.06%	3.46%
RPI-CPI gap	1.00%	1.00%
Inflation Risk Premium	0.10%	0.20%
Net interest rate ("NIR")	**2.25%**	**1.75%**

Commentary

- Falling bond yields since 2014 have reduced the NIR to 1.75%, tending to increase liabilities.
- For example, a 0.25% p.a. decrease in the NIR could increase liabilities by around c. 2.5% (depending on age) if all other assumptions remain unchanged.

Appendix 1 - Proportions married

Census data justifies a less prudent assumption for proportions married than used previously

Proportions married

The tables below shows the proportions married from the census and the proposed assumptions for valuing enhanced pensions

Census data

Age	Proportion of Males married	Proportion of Females married
50 – 55	66%	66%
55 – 60	70%	68%
60 – 65	73%	69%
65 – 70	76%	68%
70 – 75	76%	61%
75 – 80	74%	50%
80 – 85	68%	35%
85 – 90	57%	21%
90 - 95	43%	10%

Source : ONS

Proposed assumptions for valuing enhanced pensions

Age	Proportion of Males married	Proportion of Females married
Up to 80	80%	65%
80 – 85	70%	40%
85 – 90	60%	30%
90 – 95	50%	10%
Over 95	40%	10%

Comments on proportions married evidence

- The proportion of females married decreases sharply after age 75. It decreases significantly but relatively less quickly for men
- We have therefore revised the flat assumptions by using a sliding scale – sample values are shown in the right hand table above

cutting through complexity™