Case 33
Homemade Pies plc
John Cotter, University College Dublin

Overview of the Company

Homemade Pies is a specialist food producing company located in Co. Tyrone in the heart of mid-Ulster. The number of employees in the company has been reasonably constant with 102 being on the books over the previous year. It has a great reputation for producing quality food products, and, in particular, its handmade pies have won numerous national and international food awards. Traditionally, the company exported its products, with very profitable markets in many wealthy economies, including the US and Japan. Domestically, it was seen as a leader in producing high quality food specialist products, although this market was fairly small. However, this domestic market was very profitable and has been developing quite rapidly in recent years. The finance director of the company, Mr. James Lowe, believes that company has reached its 'steady state' in terms of profitability and can continue to employ this number of staff for the foreseeable future.

Discussion of Pension

Homemade Pies has always been seen as an attractive employer in the local economy. A number of reasons have been cited including the personal benefits bestowed on all staff. For instance, it was always progressive in providing pension contributions to its employees and it has a long running defined contribution scheme operating for all members. This defined contribution scheme calculates the benefits accruing to employees based on the value of the fund when an employee retires. Details of the current assets and liabilities of the scheme are provided in Appendix 1.

The finance director has prime responsibility for the operation and management of the pension scheme. In his role, he has required outside advice on a number of issues but only followed policies that he was supportive of. He has always felt that the investment strategy of the pension funds should be mixed across a set of asset types such as equities and property. He also recognised that these assets can incur high levels of risk that may not benefit the pension investment fund, so has also included relatively 'safe' fixed income type assets.
The total fund is in many different assets including: technology stocks, airline stock and financial stocks for equities; government gilts – five year and 20 year; commercial paper; time based deposits for fixed income assets and both commercial and retail property. The only investment rules governing the fund is the make-up of the portfolio of 50% equities, 30% fixed income and 20% property, and no investment is allowed in agricultural or related assets. He knew from experience that equities have the potential of being very risky, with a lot of downside price performance, and wanted to ensure that the pension investment fund diversified away from the core industry of Homemade Pies. Similar performances were recorded for Homemade Pies pension assets in 2XX1 and 2XX2 (falling by 10% each year). However, the fund performed very well in 2XX0 with a return of 26%, and since 2XX2 has achieved positive, if erratic, returns with an average of 8% per annum.

The liabilities of the fund are based on potential pension contributions for Homemade Pies, with advice been given by a consultancy firm that specialises in the investments and also in the pensions area. The calculation is based on having an average pensionable number of employees of 100 with an average retirement lifetime of ten years per person. Also the average contributions are €25,000 per annum. Thus the total calculated liabilities are calculated as the No Employees * No years of scheme*contributions: 100*10*25k = €25 million. Although the finance director has expressed confidence in the future performance of the company and the numbers employed, he has also suggested that an average pension payment of €25,000 is reasonable given the salary packages offered by the firm and others in the industry. However, he has not done any sensitivity analysis on the average number of years a pension member would receive payments from their retirement.

Part B of Appendix 1 details the expected return and risk performance of the assets of the pension scheme on a yearly basis. These are predicted estimates obtained from their consultancy findings. The report suggests that while fixed income investments offer low returns, they also are very safe with low expected deviation. The report uses the capital asset pricing model (CAPM) to discuss the relative merits of the assets chosen and the predicted returns and risk estimates are obtained from Ibbotson and Co that estimates expected returns and risk based on past performance of assets using data from over 100 years.

**Defined Benefit Pensions**

As stated, Homemade Pies (plc) have a defined contribution scheme in place that pays according to the value of the fund when an employee retires. However, there are other pension funds open to the company, in defined benefit schemes, and the finance director is interested in examining the merits of these. Defined benefit schemes calculate the benefit according to factors such as final salary, length of pensionable service and the age of the member. The payments are made regardless of the value of a company’s pension investment fund at the time of an employee retirement. If there is a deficit between the company’s pension assets and its lia-
ilities in the form of pension contributions, there is a government backed scheme to support these pension schemes.

**Note on Pension Protection Funds and Homemade Pies**

The finance director, James Lowe, has done some research on the current pension provision in the UK detailing current legislation, current schemes and their operations. He provides the following information. A new scheme, the Pension Protection Fund (PPF) was introduced in the UK as a result of the Pensions Act 2004. The idea behind the legislation was to help many pensions that faced financial difficulties as a result of poor investment performance and, specifically, to ensure that these pensions were returned to full funding, that is, the assets of the pension met the required liability contributions. Prior to the legislation many defined pension schemes were severely underfunded (and some insolvent) leading to a crises in financially supporting the retirement of many participating employees. The new system for defined benefit pension schemes, the PPF, has the following key functions: First, the PPF is required to pay compensation to members of eligible defined benefit pension schemes, when there is a qualifying insolvency event (defined as liabilities exceeding assets) in relation to the sponsor (company with defined benefit pension scheme). Second the PPF receives its funds for compensation purposes by way of imposing compulsory levies on all eligible member schemes and it is this function that we are going to concentrate our discussions (for comprehensive information on the levies and the scheme in general see Blake et al, 2006).

The rational for the development of the PPF from the UK government's perspective was to ensure that a guarantee system was in place so that employees and employers knew with certainty that full pension rights were guaranteed. Also the system should ensure that taxpayers are not required to bail out the system by providing financial support to ensure employees got their full future benefits. Essentially, the smooth operation of the PPF would require that the contributions (levies) imposed on defined benefit pension schemes be sufficient to meet future pension underfunding. For instance, speaking at the Labour Party annual conference on 1 October 2003, the Chancellor of the Exchequer Gordon Brown said the government will 'legislate for a new statutory pension protection fund. In future every worker contributing to a pension will have their pension protected and be guaranteed their pension rights.' This means that a promise made by a scheme sponsor to pay a certain pension is being guaranteed by the PPF.

Further details of the PPF are also provided. The PPF has a set of rules that are to be followed for defined benefit pension schemes. First, for each defined benefit pension scheme they have to pay a yearly levy. The fee from joining the PPF involved yearly levies charged with a cap of 0.5% of the sponsoring company's pension fund liabilities. The actual levy is set on a specific date e.g. March 31, and will not be required to be added to over the year following this date. Homemade Pies (and other sponsoring companies) may be able to manipulate the size of the levy required at this time by ensuring that their asset values are maximised and liabilities minimised at the time that the levy is introduced thereby reducing the cost of being protected by the scheme.
Second, for the pension scheme to receive financial support from the PPF it has to meet the criteria for entry into the scheme, namely, that the sponsoring employer has a pension scheme that has become insolvent with no chance of recovery. Third, once insolvent is established, the PPF takes responsibility for the member scheme and once in, the scheme will remain the responsibility of the PPF. There is a suggestion that this type of scheme may induce some undesirable behaviour amongst sponsors of defined benefit pension schemes. For instance, the scheme might allow participants to exhibit 'moral hazard,' that is they change their behaviour after joining the pension fund relative to before joining the scheme. Also the fact that the PPF will guarantee pension rights for member schemes might encourage sponsoring firms to become members by underfunding their pension schemes in advance of bankruptcy (and thereby use the funds for some other non-pension related activities of the business). Also the PPF has no authority to dictate the types of assets members are allowed to invest in for developing their pension funds, although they would like members to show prudence in their investment strategy.

After paying the levy, the member scheme (once meeting the insolvency criteria) is eligible to receive financial support from the PPF. The PPF offers two types of compensation for defined benefit schemes of relevance to Homemade Pies. The PPF protects 100% of the pension for members above scheme pension age or already in receipt of a pension due to ill health or it being a survivor’s pension (its previous employees), and 90% of the promised pension for the remaining members below scheme pension age (its current employees) up to a maximum of €25,000.

Required

You have been asked to act as an independent consultant to advise Homemade Pies on the best way to deal with their pension requirements. A number of issues should be dealt with in your report:

**Question 1**

You are asked to assess the current value of the assets and liabilities of Homemade Pies pension funds. Treating the pension assets and liabilities separately from the remaining assets and liabilities of the firm, calculate the working capital of the pension fund of the company. Also show, using ratios, (e.g. current ratio etc) the viability of the company’s pension fund. Explain all assumptions that you make.

(20 marks)

**Question 2**

Repeat the analysis of Question 1 for the future value of the assets and liabilities of the Homemade Pies pension fund. In particular you should comment on the
assumptions relating to age of pension scheme, the discount factor used and the expected returns and risk of the assets.  

(20 marks)

**Question 3**

Further illustrate your analysis by commenting on potential changing of the values relating to your answer in Question 1 (e.g. discount factor). Confine your comments to the estimation of the present value of the fund (no calculations are necessary for this question). Comment on the likely impact of the new results of Question 1 and how it would affect Homemade Pies in the actions they could follow in restructuring their pension plans.  

(10 marks)

**Question 4**

Discuss the composition of the Homemade Pies pension's assets in terms of the capital asset pricing model and the views of the finance director, for example on diversification away from Agricultural investments or related assets.  

(20 marks)

**Question 5**

Assess the relative merits of joining the Pension Protection Fund. You should discuss the current defined contribution scheme and detail how a defined benefit scheme differs from this. Also you should suggest the best solution that the company could achieve before joining the Pension Protection Fund. You should also suggest the best solution that the company could achieve after joining the Pension Protection Fund.  

(30 marks)

**Total 100 marks**

**References:**

Blake, David; Cotter, John and Kevin Dowd, (2006), The Pension Protection Fund, Centre for Financial Markets, University College Dublin.  
Appendix 1:  
Details of Homemade Pies (plc) Defined Contribution Pension for year XXXX

Part A: Pension budget  €(m)

<table>
<thead>
<tr>
<th>Assets</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Equities</td>
<td>5</td>
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<tr>
<td>Fixed Income</td>
<td>3</td>
</tr>
<tr>
<td>Property</td>
<td>2</td>
</tr>
<tr>
<td>Total Assets</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No employees</td>
<td>100</td>
</tr>
<tr>
<td>No years of scheme</td>
<td>10</td>
</tr>
<tr>
<td>Contribution</td>
<td>25</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>25</td>
</tr>
</tbody>
</table>

Part B: Expected performance of assets

<table>
<thead>
<tr>
<th>Returns (%)</th>
<th>Risk (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td></td>
</tr>
<tr>
<td>Fixed income</td>
<td>3</td>
</tr>
<tr>
<td>Property</td>
<td>20</td>
</tr>
</tbody>
</table>

Notes: There are two parts to Appendix 1. Part A details the assets and liabilities of the pension plan. The assets are based on their current market values, whereas the liabilities are based on their expected future requirements. Three types of assets are invested in. The liabilities of the pension scheme is calculated as the No Employees * No years of scheme*contributions. Further details of the estimates are given in the text. Part B details the expected return and risk annualised performance of the assets of the pension scheme.