

REVIEW OF PENSIONS
FOR THE
DfT/ORR RAIL VALUE FOR MONEY STUDY

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EXECUTIVE SUMMARY

1. The Railways Pension Scheme (RPS) was set up on privatisation of the railway industry. It is a final pay pension scheme, which operates on a “shared cost” basis under which active members pay 40% of the cost and employers 60% of the cost. Its benefits are favourable compared to most similar schemes. Members who were employed in the railway industry immediately before privatisation have protected status within the RPS, which is enshrined in legislation. In 2009, members contributed £248m to the RPS and employers £361m.
2. The actuarial valuation at the end of 2004 revealed a deficit in the RPS of £0.4bn. In anticipation of a larger deficit arising at the end of 2007, the Railway Pensions Commission (RPC) was set up during 2006 with a brief to review all aspects of pension provision in the railway industry.
3. The RPC reported early in 2008 and made a series of recommendations, including the cessation of the subsidised additional voluntary contribution scheme known as BRASS for all members; increasing pension age to 65 with cost-neutral early retirement for those without protected status; and the introduction of a career average benefits structure for new entrants (and any others who wished to opt into it).
4. In the event, the results of the actuarial valuation at the end of 2007 were better than anticipated and most of the recommendations of the RPC were not acted upon, although the underlying problems had not been resolved.
5. Developments since 2008, including the report of the Independent Public Service Pensions Commission, the abolition of the Default Retirement Age, and the change from RPI to CPI in indexation of “official pensions”, show that change in the pensions area is continuing and it may therefore be appropriate to reconsider the position of the RPS.
6. A full actuarial valuation of the RPS is currently being carried out, with an effective date of 31 December 2010. The last such valuation, as at 31 December 2007, showed a small surplus overall, albeit using an actuarial basis which is less conservative than that adopted by the generality of schemes. The valuation updates as at 31 December 2008 and 2009 showed a material deficit which would have required significant additional contributions, had a full valuation been due at one of these dates.
7. It seems likely that the results of the full valuation as at 31 December 2010 will not give rise to a serious funding crisis, largely because of the recovery in equity markets and the change in indexation of official pensions from RPI to CPI. Nevertheless, the funding and investment strategy that has been adopted by the RPS still contains significant risk. If an actuarial valuation had to be undertaken when markets were depressed, the impact on the contributions payable by both members and employers could be significant.

8. In such a case, 40% of the additional cost would have to be borne by members. The remaining 60% would fall on the employers, and some of this cost would eventually be borne by the taxpayer. Network Rail is partly supported by government: in addition, it might be possible for the TOCs to use the franchise process to defer payment of any deficit until after franchise renewal. Ways should be found to give the TOCs a direct financial interest in the funding and investment strategy of the RPS.
9. Various changes could be made to the benefits of the RPS (although not for past service benefits). Changes would have to be negotiated and consulted upon in accordance with legal requirements and in ways appropriate to the industry. Any change which affected the benefits of those with protected status would require secondary legislation.
10. Changes could include consideration of a career average benefits structure. It is important for all participants to understand that final pay pension provision is not inherently superior to career average or money purchase provision; the key determinant of the generosity of a pension scheme is the level of contributions required to provide the benefits.

DISCLAIMER

This report has been written for the DfT/ORR Rail Value for Money study and responsibility is not accepted for the use by any other party of any of its contents.

Costings included in this report are for indicative purposes only. They have been produced in advance of, and separately from, a full actuarial valuation and without the availability of full data. They are intended to give only a broad indication of the order of magnitude of the financial implications of various actions or proposals. No guarantee is given or implied that full and accurate calculations will give similar results. Action should not be taken on the basis of this report alone.

The nature and limitations, described above, of the costings in this report are such that it is not appropriate to follow the full requirements of TAS R and the Pensions TAS published by the Board for Actuarial Standards. The budgetary and timescale constraints within which this report was completed mean that compliance with these TASs would not have been practical.

Nothing in this report purports to give, or is to be construed in any way as giving or attempting to give, investment advice within the meaning of the Financial Services and Markets Act 2000.

1. INTRODUCTION

- 1.1 This report has been written as part of the DfT/ORR Rail Value for Money (RVfM) study to provide information about prospects for pension provision in the UK railway industry. It forms part of Area H – *People* – within the overall context of the RVfM study.
- 1.2 Most pension provision in the UK railway industry is made through the Railways Pension Scheme (RPS or “the Scheme”), which was set up in 1994 following the privatisation of the industry. Those who were pensioners or deferred pensioners at the time of privatisation joined a special section of the RPS which has a government guarantee. This section is not within the scope of this report and all the figures which follow exclude consideration of this section.
- 1.3 In 2009, total contributions to the RPS amounted to £637m, of which £248m was paid by members and £389m by the employers (including £28m Government support which should be ignored for the purposes of this report). At 31 December 2009, the RPS had 86,747 active members. The RPS is examined in more detail in section 2.
- 1.4 In 2006, the main industry participants agreed to set up an independent commission to review all aspects of pension provision in the railway industry and to make recommendations. This commission, the Railway Pensions Commission (RPC), issued its final report in January 2008. Its key recommendations are summarised in section 3.
- 1.5 Since the publication of the RPC’s final report, a number of developments have led to a need to revisit its conclusions and recommendations. These developments, some of which are external and others specific to the industry, are considered in section 4.
- 1.6 The next full actuarial valuation of the RPS is due with an effective date of 31 December 2010. Indicative draft results are expected from the Scheme Actuary by 31 March 2011 and full results by 30 June 2011. The implications of potential outcomes are discussed further in section 5.
- 1.7 Section 6 looks at the investment strategy of the RPS and the implications for both members and employers of any failure of this strategy.
- 1.8 Various options for change to the RPS are described in section 7. Indicative costings are given, together with consideration of the advantages and disadvantages of the proposed changes from the point of view of the various industry participants.
- 1.9 Finally, section 8 summarises the key conclusions.

2. BACKGROUND

- 2.1 The UK railway industry was privatised by means of the Railways Act 1993, which received Royal Assent on 5 November 1993. As a consequence of privatisation, pension provision for all employees in the industry was made under a new joint industry scheme, the RPS, which was set up with effect from 31 May 1994 to take over responsibility from its predecessor, the British Railways Pension Scheme (BRPS).
- 2.2 The RPS, like its predecessor, is a final pay scheme and operates on a “shared cost” basis under which the employers pay 60% of the cost of the Scheme and active members pay 40%. In certain circumstances the employer can pay more than 60% of the cost but this is relatively uncommon. If there are no active members, the employer does of course have to pay 100% of the cost.
- 2.3 The shared cost basis is unusual when compared with the more normal “balance of cost” approach – under which members pay a fixed rate of contributions, with the employer paying the balance – that applies to the great majority of defined benefit pension schemes in both the public and private sectors. The use of the shared cost basis has a material impact on the funding arrangements for the RPS and on the attitude of the parties towards the Scheme.
- 2.4 The benefits provided by the RPS for its members are essentially the same as those provided by the BRPS before privatisation. Unusually for what is nominally a private sector scheme, the benefits are set out in full in legislation, the Railways Pension Scheme Order 1994 (SI 1994/1433). The key features of the benefits of the RPS are:
- the right to retire at any time between the ages of 60 and 65 without an early retirement reduction;
 - favourable terms for retirement from active service before age 60;
 - a pension of 1/60 of final pay for each year of service, integrated with the State basic pension;
 - a lump sum of 1/40 of final pay for each year of service, in addition to the pension;
 - benefits increasing in payment in line with inflation;
 - benefits on death in service or after retirement.
- 2.5 It is fair to say that the benefits provided by the RPS for its members are relatively favourable when compared with the generality of defined benefit pension schemes in both public and private sectors. However, member contributions are also significantly higher than in most other such schemes; nearly all members contribute in excess of 10% of Section Pay (the pay on which benefits and contributions are calculated) and some contribute as much as 12% (although it should be noted that Section Pay can be significantly less than total pay). By contrast, the average member contribution to private sector defined benefit schemes is just over 5% of pay.

- 2.6 Employees who were members of the BRPS at the time of privatisation were given commitments by the then Government which were enshrined in legislation. The then Secretary of State for Transport, John MacGregor, said in a written answer on 20 May 1993:

“I have decided that there should be set up, under the powers granted in the Railways Bill, a joint industry pension scheme for the railways.”

“The benefits offered to employees must be no less favourable than those in the existing scheme. ...The present schemes under which the employer matches additional voluntary contributions (BRASS schemes) will continue subject to the existing right of the employer to withdraw matching for new or increased contributions.”

“Employees should be reassured by the statutory protection of these benefits. But I now propose to go further and give those staff serving at Royal Assent an individual right to remain in the joint industry scheme for as long as they are still employed in the railway industry. An amendment to the Bill to secure this **indefeasible right** – on which representatives have placed great importance – will be brought forward.” *[emphasis added]*

- 2.7 There are therefore two distinct forms of protection that were applied to essentially all employees of British Railways at the time of privatisation. Both of these are enshrined in legislation.
- 2.8 First, there are **Protected Persons** who are entitled to pension rights, in respect of past *and future* employment, that are at least as favourable as those provided by the BRPS on 31 May 1994.
- 2.9 The protection provided for accrued rights is effectively the same as that provided for all members of defined benefit schemes in the private sector. However, what is unusual in the RPS (although it also applied to employees in some other industries which were privatised) is that this protection extends to benefits that will be accrued in the future. It follows that any adverse change, however minor, to the benefits provided by the RPS for the future service of Protected Persons would require secondary legislation.
- 2.10 Secondly, employees at the time of privatisation have the **Indefeasible Right** to be a member of the RPS for as long as they remain in the railway industry.
- 2.11 As a result any company that enters the industry for the first time, perhaps by bidding successfully for an outsourcing contract, and thereby becomes the employer of employees with the Indefeasible Right, has to set up its own Section of the RPS (or participate in the “omnibus” Section for small employers). This applies even if the company has comparable defined benefit pension arrangements of its own.

- 2.12 Employees who have joined the industry since privatisation have no special status and are, from a pensions perspective, in the same position as an employee in any other industry; that is, pension provision (for future service) depends on the contract of employment and can be changed after appropriate consultation and negotiation, in line with statutory requirements. Fewer than half (approximately 40%) of the active members of the RPS are Protected Persons, but as they are also the older and longer-serving members, they make up about 80% of the past service liabilities of the active members of the RPS.
- 2.13 The RPS is a “sectionalised” scheme. This means that most employers in the railway industry have their own Section (in some cases more than one Section) of the RPS, and each Section is treated as a separate pension scheme for funding purposes. There are approximately 100 Sections in the RPS (including the “Omnibus” Section that covers around 60 of the smallest employers). Some of these Sections are very small but they are needed to enable compliance with the operation of the Indefeasible Right referred to in paragraph 2.10 above.
- 2.14 Over half of the Sections of the RPS are closed to new entrants (other than any new employees with the Indefeasible Right). This generally applies to the Sections for infrastructure and engineering companies. By contrast, the Sections operated for the TOCs, Network Rail and the freight operators are all open to new entrants. The closed Sections are generally smaller than the open Sections, with the former having an average of 113 active members at the end of 2009, compared to the latter’s average of 1,822 active members. In terms of fund size, the average at the end of 2009 was under £50m for closed Sections, compared with over £200m for open Sections.
- 2.15 At the time of privatisation, the newly-formed RPS had an actuarial surplus of about £1.8bn. This declined steadily in the succeeding decade, until the actuarial valuation as at the end of 2004 revealed a deficit of £0.4bn. It was widely expected, following that valuation, that this trend would continue and that the valuation as at the end of 2007 would reveal an even larger deficit, with serious implications for the contributions payable by both members and employers.
- 2.16 As a result, the key industry participants agreed during 2006 to set up an independent commission, the Railway Pensions Commission (RPC), to review all aspects of pension provision in the industry.
- 2.17 The work of the RPC and its key recommendations are summarised in section 3 of this report.

3. SUMMARY OF KEY RECOMMENDATIONS OF THE RPC

- 3.1 The RPC carried out a detailed analysis of the RPS (“the Scheme”) during 2007 and took both oral and written evidence from many industry participants. It published a first report in May 2007 and a final report in January 2008. Its final report contained detailed recommendations for reform of pension provision in the UK railway industry, including changes to the Scheme within the constraints set by privatisation legislation.
- 3.2 The RPC described how the Scheme was subject to the same pressures as other defined benefit pension schemes, these being:
- improvements to the level of benefits as a result of legislation, collective bargaining and regulatory intervention;
 - significant and continuing improvement in the life expectancy of members of the scheme; and
 - a reduction in the anticipated income from pension fund investments.
- 3.3 In addition, the RPC identified pressures arising from specific features of the Scheme that had the effect of treating some categories of member more favourably than others. These were as follows:
- favourable early retirement factors, which mean that active members can retire at age 55 on a pension of 90% of their accrued pension; and
 - a voluntary contribution arrangement, the British Railways Additional Superannuation Scheme (known as BRASS), under which members could make additional voluntary contributions which were matched by the employer up to a limit of 5% of pay.
- 3.4 The evidence available to the RPC showed clearly that these features were used more by the higher-paid than the lower-paid members of the Scheme. As a result the “shared cost” nature of the Scheme meant that the lower-paid were, in effect, subsidising the ability of the higher-paid to retire early on favourable terms. Lower-paid employees usually cannot, in practice, afford to retire early because they cannot access their State pension.
- 3.5 The RPC also noted that the Protection Order could be seen as having imposed constraints on the ability of the industry to respond constructively to new circumstances. In its first report the RPC said:
- “...it is far from clear – had privatisation not happened – that BR would have continued to offer benefits such as the generous early retirement factors (dating from a period when the organisation was restructuring), BRASS matching payments or the 12:1 rate for converting lump sums to pension. It is open to question whether any organisation would have maintained these to the present day for all scheme members ... without the Protection Order...”

- 3.6 Despite these problems, the RPC did not recommend a wholesale review of the Protection Order, although it did make it clear that members who benefit from this protection should expect the cost of these commitments to continue to increase.
- 3.7 The key recommendations of the RPC in its final report were as follows.
- 3.8 **For those with protected status:**
- cessation of all contributions to BRASS.
- 3.9 **For those without protected status:**
- cessation of all contributions to BRASS;
 - pension age for future service to be increased to 65;
 - the terms for early retirement (other than ill-health) for pensions earned in the future to be cost-neutral;
 - the contribution rate to be based on the cost of these arrangements.
- 3.10 **For new entrants and any others who wish to opt in:**
- a career average revalued earnings (CARE) scheme with these features:
 - ◇ an accrual rate of 1/50;
 - ◇ revaluation before retirement in line with RPI;
 - ◇ pension age 65;
 - ◇ the terms for early retirement (other than ill-health) to be cost-neutral;
 - ◇ a longevity adjustment to benefits to allow for changes in mortality;
 - ◇ pensions in payment to increase in line with RPI up to 5% p.a.
- 3.11 The RPC also recommended that the then normal practice of allowing deferred members to benefit from the favourable early retirement factors referred to in paragraph 3.3 should cease. This did not require a rule change and it is understood that most Sections of the Scheme no longer follow this practice.
- 3.12 At the time the RPC's final report was published, it was widely expected that the actuarial valuation of the Scheme as at 31 December 2007 would show an increased deficit, compared with the £0.4bn at the end of 2004. In the event, however, mainly because of favourable market conditions at the valuation date, the valuation revealed an overall surplus of £0.3bn and an average funding level of 102.6%, although some Sections disclosed deficits.
- 3.13 The fact that the 2007 valuation results were more favourable than anticipated meant that the pressure on contribution rates, which had led to the RPC being established, did not materialise. It appears that as a result most of the RPC's recommendations were not acted upon, even though the underlying problems described in paragraphs 3.2 to 3.5 above had not been resolved.

4. DEVELOPMENTS SINCE THE RPC REPORT

- 4.1 Since the RPC published its final report in January 2008, a number of developments, both within the railway industry and in the general environment, suggest that it may be desirable to revisit some of the conclusions of that report. These developments are discussed in this section.
- 4.2 In 2008, not long after the publication of the RPC's final report, Network Rail announced the introduction of a CARE scheme based largely on the model described by the RPC in its report and summarised in paragraph 3.10 above. This is offered to all new entrants and existing employees, alongside the defined contribution scheme which Network Rail had introduced in 2004. The RPS is not offered to Network Rail employees until they have 5 years' company service (unless they have the Indefeasible Right or were already participating in the RPS, in which case they are entitled to join the final pay Section immediately on joining Network Rail).
- 4.3 In March 2010, the infrastructure company Jarvis plc went into administration. Jarvis had three Sections in the RPS, with 1,846 members as at 31 December 2009. There had been previous insolvencies amongst RPS infrastructure employers, but this was by far the largest. Some of the RPS Jarvis members had long service in the industry, including pre-privatisation service, but the sectionalised nature of the RPS means that the three Jarvis Sections are likely in due course to enter the Pension Protection Fund and, consequently, members' benefits will be cut back in line with PPF rules. This has made clear the limitations on what is meant by Protected Person status – namely, that whilst members have the right to join a pension scheme providing a defined level of benefits, the security of those benefits is not guaranteed in the absence of a solvent sponsoring employer.
- 4.4 In June 2010, Lord Hutton of Furness (John Hutton) was appointed to chair the Independent Public Service Pensions Commission, tasked with undertaking a “fundamental structural review of public service pension provision”. The Commission's final report was published on 10 March 2011 and its key recommendations were as follows:
- career average provision for all future service;
 - pre-retirement revaluation in line with earnings;
 - past service benefits fully protected including a link to future final pay;
 - normal pension age to be the same as State pension age;
 - employer contributions should be subject to a fixed maximum.

The Chancellor of the Exchequer, in the Budget statement on 23 March 2011, indicated that the Government accepted Lord Hutton's recommendations as a basis for consultation with the affected parties. Some key factors, such as the accrual rate for the career average structure, and the maximum rate proposed for employer contributions, are yet to be announced.

- 4.5 Also in June 2010, it was announced in the Budget that “official pensions” would in future increase in line with the Consumer Prices Index (CPI) rather than the Retail Prices Index (RPI). The rules of the RPS, which as mentioned in paragraph 2.4 above can be found in SI 1994/1433, refer specifically to increases in “official pensions”. As a result, pensions under the RPS (both deferred pensions and pensions in payment) will increase in future in line with CPI rather than RPI. The implications of this for the funding of the RPS are considered further in paragraphs 5.19 onwards.
- 4.6 In January 2011, the Government announced that the default retirement age (DRA), which is currently age 65, will be phased out by 1 October 2011. From that date, no employer will be able to retire an employee compulsorily on the grounds of age, unless objective justification can be shown. The RPC’s reports showed that, despite the favourable early retirement factors, many railway employees still retire at 65, and it seems reasonable to assume that some of these would carry on working past age 65 if they could. The planned increase in State pension age to 66 by 2020 must increase the likelihood that some employees, especially the lower-paid, will wish to continue working until at least that age.
- 4.7 The RPI to CPI change is already in place and will have a significant impact on the future funding of the RPS, as shown in the next section of this report. The other developments described above form part of a picture of continuing change in the pensions environment, which must be taken into account in any review of pension provision in the railway industry.

5. VALUATION OF THE RPS AS AT 31 DECEMBER 2010

- 5.1 A full actuarial valuation of all the shared cost Sections of the RPS is currently being undertaken, with an effective date of 31 December 2010, by the Scheme Actuary, James Wintle of Towers Watson. Indicative draft results of the valuation are due by the end of March and full results by the end of June 2011. At this stage it is possible to make only a tentative assessment of the possible outcome of the valuation and prediction of its potential impact on the cost of running the railways. Nothing which follows is therefore intended to predict or replace the actual results, which can only be provided by the Scheme Actuary. Nevertheless it is hoped that, given the timetable for the RVfM exercise, the figures in this section should provide a useful indication of the nature of the likely outcome.

2007 valuation and valuation updates

- 5.2 The last full valuation of the RPS was undertaken as at 31 December 2007. The overall funding level across all the shared cost Sections, on the “technical provisions” basis described in the next paragraph, was 102.6%, with results for individual Sections varying from 75% to 137% (although four-fifths of Sections had a funding level within ten percentage points of the overall level).
- 5.3 The “technical provisions” (TP) for a pension scheme are set by the scheme’s trustees after taking actuarial advice, and are subject to the requirements of the Pensions Act 2004, including supervision by the Pensions Regulator (tPR). They vary from scheme to scheme, depending on each scheme’s individual circumstances and those of its sponsoring employer(s).
- 5.4 It is, however, relevant to note how the overall funding level on the TP basis compares with that on the basis prescribed by the Pension Protection Fund (PPF). The latter basis is set by the PPF for the purposes of setting the PPF levy and is the same for every scheme. The overall funding level of the RPS on the TP basis was 102.6%, as mentioned above, whereas on the PPF basis it was estimated as 92%; it is more typical to find the PPF funding level significantly higher than the TP funding level. Many of the largest Sections had a funding level on the TP basis substantially higher than on the PPF basis, particularly the TOCs, for which the difference was frequently between 15 and 20 percentage points.
- 5.5 Table 5.1 below shows the average funding levels of all schemes reporting to tPR for the year ended 31 March 2008, compared with those for the RPS as at 31 December 2007.

Table 5.1 Comparison of Funding Levels		
	Average of all schemes	RPS total as at 31.12.07
Technical provisions funding level	85.0%	102.6%
PPF (section 179) funding level	99.4%	92%

- 5.6 These figures indicate that the technical provisions basis adopted by the RPS is, overall, less conservative than that adopted by the generality of schemes. This is confirmed by the figures in Table 5.2 below, which compares the key discount rate assumptions used by the RPS in the 2007 valuation with the weighted average for all schemes with valuation dates falling in the period 22 September 2007 to 21 September 2008.

Table 5.2 Comparison of Discount rates		
	Weighted average of all schemes	RPS 2007 valuation
Pre-retirement rate (nominal)	6.58%	7.33%
Post-retirement rate (nominal)	5.18%	5.78%
Pre-retirement rate (real)	2.99%	4.00%
Post-retirement rate (real)	1.64%	2.50%

- 5.7 The RPS assumptions in Table 5.2 are for a “standard covenant” Section. For Sections deemed to have a “very strong covenant” (for example, Network Rail and the TOCs), the pre-retirement return is increased by a further 0.25%. On the other hand, for Sections with a weaker than “standard” covenant, the returns (both pre- and post-retirement) are progressively reduced. However, it should be noted that the weighted average assumptions in the tPR report are not reached in RPS until approximately the covenant strength described as “Weak 2”, which is the fourth highest out of six possible bands of covenant strength (i.e. only two bands are weaker than this, the weakest of which had no Sections in it at the 2007 valuation).
- 5.8 The implication of the choice of actuarial assumptions for the 2007 valuation of the RPS is that the employer covenant for most Sections is very strong, i.e. that the employer(s) concerned were both able and willing to support higher (possibly substantially higher) contributions to the Scheme if the assumptions were not borne out in practice. At the very least, this implication should be understood by the employer(s) concerned.

- 5.9 The sensitivity of the figures to the assumptions described above is easily demonstrated. If the assumptions for the 2007 valuation had been chosen so that the aggregate funding level of the RPS, on the technical provisions basis, was the same as on the statutory PPF basis (estimated as 92%), there would have been a deficit of £1.2bn (assets £13.7bn, technical provisions £14.9bn). This would have required deficit contributions of about £150m p.a. over a typical ten-year recovery period – an increase of about one-third in normal member and employer contributions. Even this would have implied a basis materially stronger than the average scheme, according to the statistics cited in paragraph 5.5 above.
- 5.10 In the year following the effective date of the 2007 valuation, investment markets worldwide suffered in the financial crash of 2008. The assets of the shared cost Sections of the RPS fell in value from £13.7bn at the valuation date to £10.3bn at the 31 December 2008 funding update. This substantial fall is largely a consequence of the RPS's investment strategy, which is discussed further in section 6 of this report. As a result, the overall funding level, on the TP basis, fell from 102.6% to 78.9% over the year.
- 5.11 During 2009, markets recovered a considerable amount of the ground lost during 2008, and the asset value rose from £10.3bn to £12.2bn as at 31 December 2009. However, the liabilities of the RPS also rose, because gilt yields fell over the year which causes the cost of providing pensions to rise. As a result the overall funding level on the technical provisions basis at the end of 2009 was only slightly higher than a year earlier, at 81.4%.
- 5.12 Figure 5.1 shows the distribution of funding levels for the Sections of the RPS at the funding update as at the end of 2009, distinguishing between those that are open and closed to new entrants. The average funding level for open Sections was 81.1 per cent and for closed Sections was 82.6 per cent.
- 5.13 Figure 5.2 shows the same information, i.e. the distribution of funding levels, but weighted by the size of the Section's liabilities, rather than by the number of Sections. It will be seen that the distribution of funding levels is much narrower when weighted in this way, indicating that the Sections with more extreme funding levels, both high and low, tend to be those with smaller liabilities. It is also clear that the Sections which are open to new entrants (principally Network Rail, the TOCs and the freight companies) cover by far the majority of liabilities of the RPS.

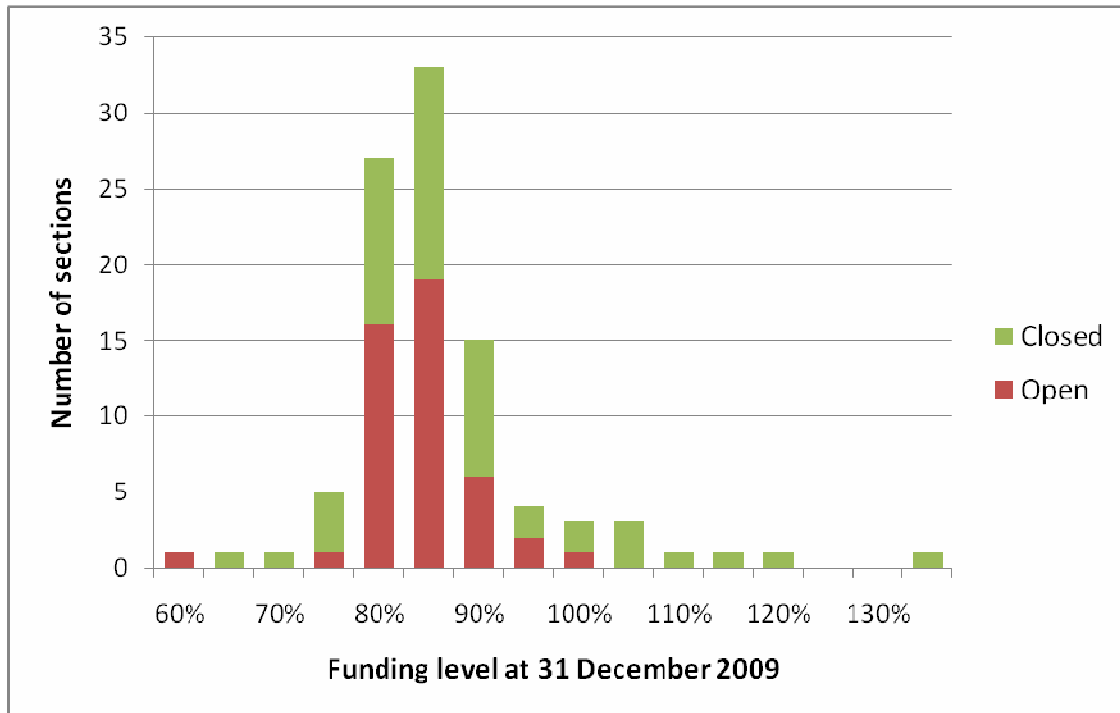


Figure 5.1: Estimated Funding Levels of RPS Sections at 31 December 2009

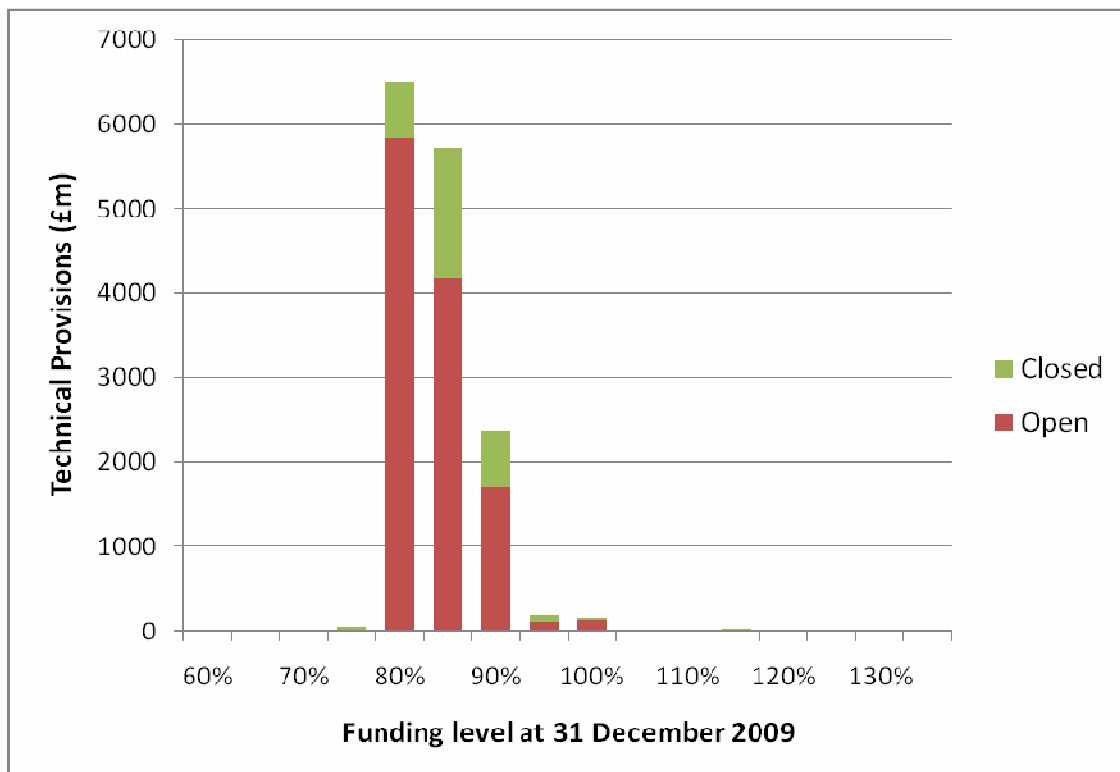


Figure 5.2: Estimated Funding Levels of RPS Sections at 31 December 2009 Weighted by size of Section liabilities

- 5.14 Had the triennial valuation of the RPS been due as at the end of either 2008 or 2009, therefore, it is likely that a deficit of about £2.8bn on the TP basis would have been disclosed. If a ten-year recovery period had been agreed, deficit contributions of the order of £350m p.a. would have been needed – over two-thirds of normal member and employer contributions, implying member contribution rates of around 16-20% of Section Pay and employer rates of 24-30% (on the 40/60 shared cost basis).
- 5.15 It will be appreciated that requiring members to contribute at this sort of level would have led to severe difficulties for the operation of the RPS. There would undoubtedly have been pressure to lengthen the recovery period substantially, to weaken the actuarial basis, to amend the shared cost approach, or some combination of these; but it appears unlikely that such steps would have been sufficient to avoid all of the difficulties.

2010 valuation – past service

- 5.16 Fortunately, it is understood that it is likely, all else being equal, that the funding position of the great majority of Sections will be shown to have improved materially during 2010.
- 5.17 First, during the year, the equity market (in which most of the assets of the RPS are invested) strengthened considerably, and this is expected to have more than compensated for the increase in liabilities arising from the reduction in gilt yields that occurred at the same time. The net effect is therefore that the average funding level is likely to have improved during 2010.
- 5.18 Second, various changes that have occurred over the last three years are expected to have had a favourable net impact on funding levels. Changes to the mortality assumptions following a comprehensive mortality investigation might reduce funding levels by up to 3 percentage points, although in most Sections the reduction from this source is more likely to be about 1 percentage point. Those Sections that have removed the favourable early retirement terms for deferred members (see paragraph 3.11) will have seen an increase in the funding level of 2 to 4 percentage points.
- 5.19 The most significant change, which will both improve the past service funding level of the RPS and reduce the future service contribution rate, is the change in indexation of official pensions from RPI to CPI. As has been noted widely, CPI is expected to increase at a lower rate than RPI, partly because of different index constituents, but more fundamentally because CPI uses a geometric rather than an arithmetic method to construct the index (see Appendix C for examples of how this works).
- 5.20 The effect of this change on a scheme such as the RPS, where the change applies to pensions in payment as well as deferred pensions, is considerable. The Scheme Actuary's initial consultation and discussion paper estimates that this change alone is likely to improve the funding level of a Section by 5-10 percentage points, depending on the maturity (number of pensions in payment compared with non-pensioners) of the particular Section.

5.21 Even with the unexpected and unrepeatable funding advantage gained by the change from RPI to CPI, it still seems unlikely that the majority of Sections of the RPS will show a surplus on the TP basis as at 31 December 2010. An overall deficit in the range £0.75bn to £1.25bn seems likely, with deficit contributions lying in the very broad range £50m to £200m p.a. depending on the level of deficit disclosed and the recovery period agreed (which in practice can be expected to vary from Section to Section).

2010 valuation – future service

5.22 Figure 5.3 shows the normal JCRs, expressed as a percentage of Section Pay, that are currently payable in each Section, based on the results of the 2007 valuation, i.e. the cost at that time of providing accruing benefits, before allowing for any deficit or surplus. So, for example, it will be seen that there were 20 Sections where the JCR is between 25 per cent and 26 percent. The figure also distinguishes between open and closed Sections with, for example, 3 closed Sections and 17 open Sections in that group.

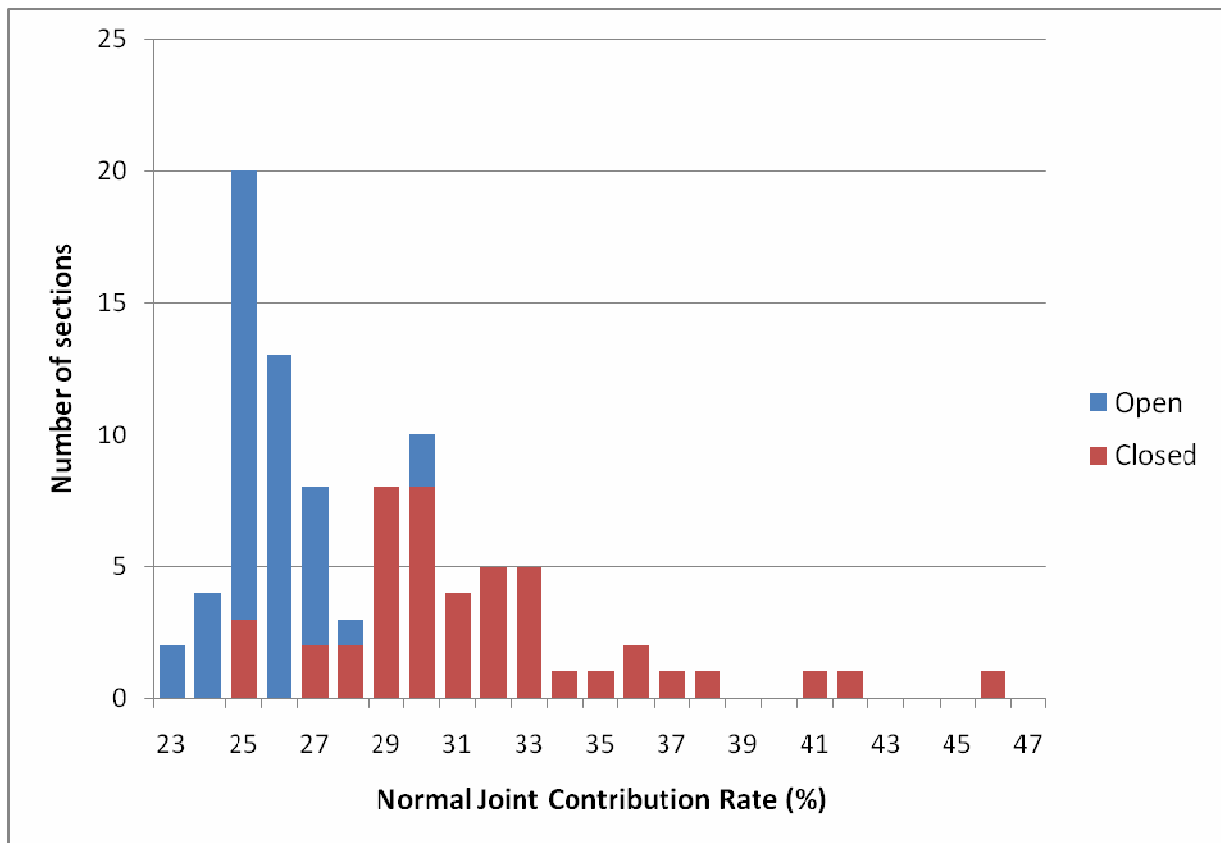


Figure 5.3 Normal Joint Contribution Rates – by number of Sections

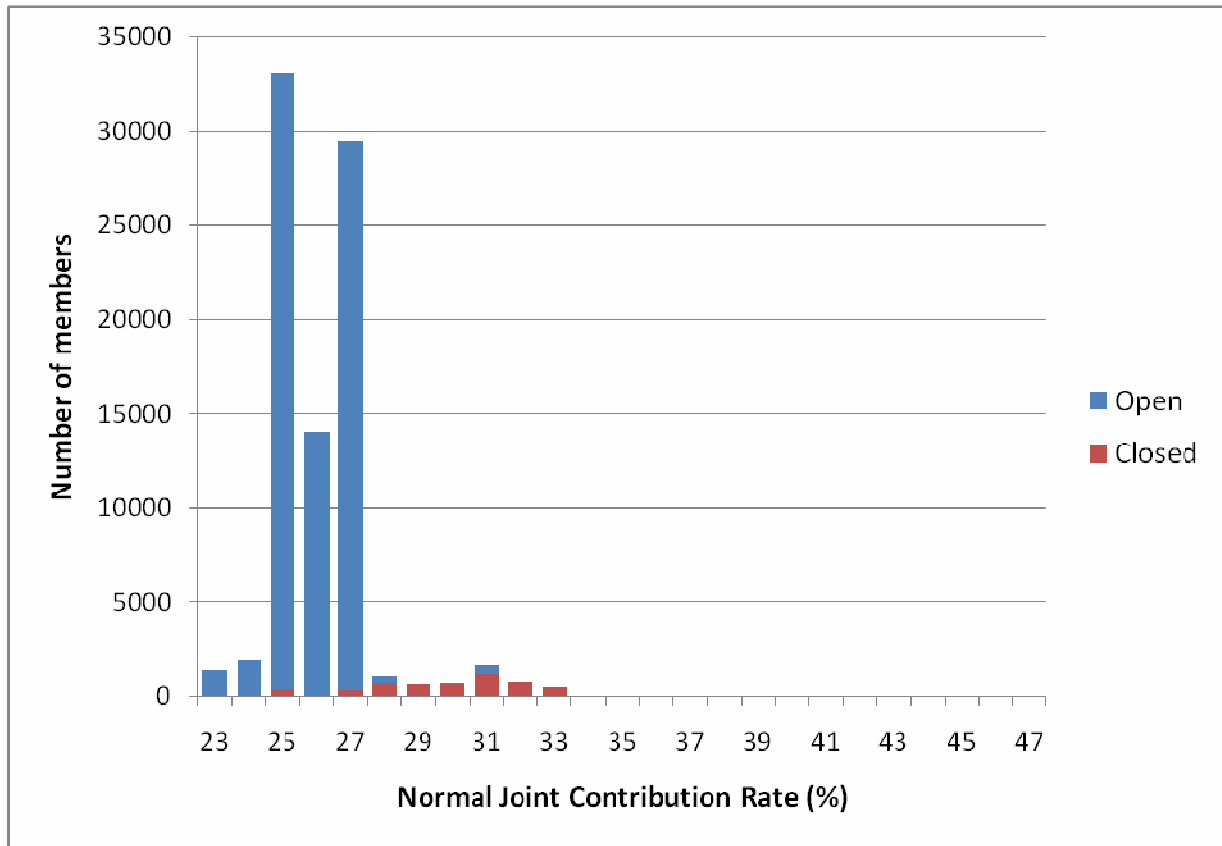


Figure 5.4 Normal Joint Contribution Rates – by number of members

- 5.23 Figure 5.4 shows the same information but weighted by the number of active members, rather than by the number of Sections. The normal JCR, weighted by size of Section, was 27.5 per cent. The equivalent figures for open and closed Sections were 26.7 per cent and 30.2 per cent respectively. By comparing the two graphs it will be seen that, as with funding levels, the more extreme JCRs relate to the smaller Sections and that the great majority of members are in open Sections where the JCR is between 25 per cent and 28 per cent.
- 5.24 Figures 5.3 and 5.4 show that closed Sections tend to have higher contribution rates than open Sections. Such a difference is to be expected because closed Sections do not have a flow of new entrants, who naturally tend to be younger on average than existing members; also, the attained age (AA) actuarial method is used to calculate the contribution rate for closed Sections, rather than the projected unit (PU) method that is used for open Sections. The Scheme Actuary has estimated that the use of the AA method produces a contribution rate that is between 3 per cent and 4 per cent of Section Pay greater than that produced by the PU method.
- 5.25 As with the funding position of each shared cost Section, the likely changes in the normal JCR following the valuation will not be known until June. However, figures from the Scheme Actuary suggest, all else being equal, that the various changes that have taken place since 2007 mean that the normal JCRs will be lower following the 2010 valuation than those illustrated in the graph above.

5.26 While final decisions have not been taken about the basis to be used for the 2010 valuation, it appears likely that changes in investment and mortality assumptions will lead to increases in the normal JCR of around 2 per cent of Section Pay. However, this will be more than offset by the change in the basis for indexation from the RPI to the CPI, which on its own would reduce the normal JCR by between 2.5 per cent and 3.5 per cent. In addition, those Sections that have removed the favourable terms on early retirement for deferred members are likely to see a reduction in the normal JCR of up to another 1 per cent.

2010 valuation – overall

5.27 The net result of these factors is that the normal JCR (i.e. the cost of future service benefits) calculated at this valuation might be expected to fall by an average of up to 1.8 per cent, or 2.6 per cent for those Sections where the change has been made in the early retirement terms for deferred members. This is with the important exception of those Sections, if any, that have moved from open to closed status since the 2007 valuation, where the reduction will be more than offset by the increase due to the change in actuarial method.

5.28 The combination of a lower-than-expected deficit and a slightly reduced normal JCR means that, mainly as a result of the change from RPI to CPI, it seems unlikely that the RPS will face a major funding crisis when the results of the 2010 actuarial valuation are known, although there may still be difficulties in some Sections. Even so, the total JCR (i.e. the cost of future service benefits plus deficit contributions) for a typical Section might still need to be increased by something between 2 per cent and 3 per cent of Section Pay. However, for those Sections that are able to agree a recovery period longer than ten years the increase in the total JCR would be less and even, in some cases, zero, particularly where the change has been made in the terms for early retirement for deferred members.

5.29 However, the change from RPI to CPI is inevitably a one-off. Had the full valuation been due as at the end of 2008 or 2009, the impact on contributions would have been very substantial, as pointed out in paragraph 5.14 above.

5.30 The volatility of the funding results at the end of the years 2007, 2008 and 2009 arises principally from the investment strategy pursued by the RPS Trustee. This strategy and its possible consequences are considered further in the next section of this report.

6. THE INVESTMENT STRATEGY OF THE RPS

- 6.1 Although some Sections of the RPS set their own investment strategy, overall the RPS pursues an investment strategy which is heavily weighted towards “return-seeking” investments, predominantly equities. Figures provided by rpm (the company which administers the RPS) indicate that the vast majority of Sections have a very high strategic allocation to return-seeking assets; in many Sections the allocation is around 95%. Traditionally this has largely been in global equities, but with a significant proportion in illiquid forms such as private equity, property and infrastructure. However, a diversified growth fund launched by RPS during 2010 has proved very popular, with assets now amounting to some £6bn (approximately half in equities).
- 6.2 Return-seeking assets are inherently more volatile than bonds and matching assets, when compared with the RPS’s liabilities. This potential mismatch of assets and liabilities has the potential for undesirable consequences and, for this reason, the majority of private sector defined benefit pension schemes (most of which, it must be said, are closed to new entrants) have a much lower allocation to return-seeking assets. This allocation has been reducing in recent years and is now around 50%.
- 6.3 The RPS has in fact been fortunate, as explained in section 5 of this report, in that the effective date of the 2007 valuation was very close to the peak of the bull market; and the strong rise in equities during 2010, when combined with the RPI to CPI change, seems likely to avoid a serious crisis in 2011. Nevertheless, the equity market has been very volatile since the peak of the “tech bubble” at the end of 1999 and it would be imprudent not to consider the possibility that at some point in the future a valuation will coincide with a low point in the market.
- 6.4 The investment performance of some of the RPS’s pooled funds, relative to their benchmark, has also been disappointing. For example, the largest such fund, the Global Equity Pooled Fund, had a five-year performance to the end of 2009 which was 1.2% p.a. (about 6% cumulatively over 5 years) behind its benchmark. If that fund had been 6% higher at the end of 2009, the assets of the RPS as a whole would have been about £500m greater. This raises the question, given the very low cost of passive management, as to why the RPS takes additional risk by using active management where there is a passive alternative.
- 6.5 If the RPS’s return-seeking strategy were to fail, or to produce results at a particular valuation which caused contributions (including deficit contributions) to rise beyond acceptable levels, it is worth considering who would bear the cost of such a failure.
- 6.6 The shared-cost nature of the RPS means that 40% of all costs are borne by the active members. If member contributions were to rise suddenly by say 5% of Section Pay, it seems likely that many members would withdraw from the RPS, which would drive up the contribution rate by an even greater amount for the remaining members. The possibility of this leading to an unsustainable situation cannot be ignored.

- 6.7 The remaining 60% of the cost would be borne by the employers, over a recovery period which would have to be agreed (and would be likely to vary between Sections).
- 6.8 The largest Sections in the RPS are those of Network Rail, the TOCs and the freight companies. Network Rail is a company limited by guarantee, and whilst it is not strictly a public sector company, it is nevertheless part funded by government and can therefore be sensibly regarded as having a strong covenant.
- 6.9 The TOCs participate in the railway industry on the basis of franchises of pre-determined length and pre-agreed financial conditions. It would be natural for a TOC to look for a longer recovery period in respect of any deficit arising during a franchise period, to minimise the financial effect on the current franchise. The deficit payments could then be allowed for in the calculation of the support payments when the franchise was re-let.
- 6.10 At present, therefore, it could be argued that the TOCs have little incentive to engage actively with the RPS. If the current return-seeking strategy is successful, the TOCs gain through reduced employer contributions; if it is unsuccessful, it might be possible for the TOCs to defer payment of deficit contributions until after the franchise expiry (at which point any deficit can be factored into the pricing for a new franchise).
- 6.11 It may be worth considering how the TOCs could be persuaded to engage more actively with the investment and funding aspects of the RPS. One possible approach might be to require each TOC, as part of the franchise agreement, to ensure that its Section of the RPS is at least as well-funded (on the TP basis) at the end of the franchise period as it was at the beginning. The TOCs would doubtless argue that if their Section were to be better-funded at the end of the franchise period, the excess should be returned to them by way of rebate; however, at the very least such a provision should ensure that TOCs would become much more engaged with the risks inherent in the investment strategy of the RPS. It might also be worth noting that longer franchise periods would enable TOCs to plan more effectively to address pension funding issues during the life of the franchise.
- 6.12 The freight companies operate in a fiercely competitive market in which they compete without subsidy with road hauliers and other operators. Some contracts are awarded for very short periods. They maintain open Sections in the RPS largely because they must, of necessity, compete with the TOCs for drivers and other staff.
- 6.13 The infrastructure and engineering companies generally have closed Sections in the RPS. In some of these, the joint contribution rate is already well in excess of 30% of pay and in some cases the employer has opted to pay more than its theoretical 60% share of the cost, because of concerns that the members would simply withdraw from the scheme if they were asked to pay 15% of pay or more as pension contributions (thereby leaving the employer to meet the entire cost of the deficit in the Section).

7. OPTIONS FOR CHANGE

- 7.1 This section of the report considers various changes to future service benefits and presents approximate costings in terms of the impact on the normal JCR. It must be stressed that the figures that follow are for indicative purposes only and it will be necessary to obtain accurate costings from the Scheme Actuary before any decisions are made. However, the figures do indicate the broad order of magnitude and the comparative cost of the various changes that have been suggested.
- 7.2 The changes below are not recommendations, merely costed alternatives. It is important to keep in mind the two forms of protection that ex-British Rail employees enjoy and the extent to which this limits changes to their future benefits.
- 7.3 The figures set out in Table 7.1 below are expressed in terms of a percentage of Section Pay, being the reduction in the normal JCR of each change, taken by itself. The impact will obviously vary from Section to Section, depending in large part on what each Section's normal JCR is following the completion of the current valuation. However, the majority of members might be expected to be in Sections with a normal JCR between 25 per cent and 30 per cent, so these two figures have been chosen as the basis for the illustrative figures.

Table 7.1 Impact on JCR of changes in benefits for future service		
	% of Section Pay	
Assumed Normal JCR for the Section	25%	30%
Benefit changes:		
Cost-neutral early retirement factors for actives	1.6%	1.9%
Increase pension age to 62	2.3%	2.8%
Increase pension age to 65	5.4%	6.5%
Cap future increases in Section Pay by CPI	3.7%	4.4%
Reduce pension accrual rate from 1/60th to 1/70th	3.3%	4.0%
Reduce pension accrual rate from 1/60th to 1/80th	5.8%	7.0%
Abolition of additional lump sum on retirement	1.7%	2.1%
Change from final pay to CARE (pay revalued by CPI)	3.7%	4.4%

- 7.4 If more than one change is made then the impacts are, in most cases, compounded, i.e. it would not be strictly accurate to simply add the figures for a package of changes. For example, if pension age were to be raised to 65 *and* all early retirement factors were cost-neutral, the estimated savings would be 6.7% and 8.0%, respectively.
- 7.5 Table 7.2 below sets out the costs of the same changes as in Table 7.1, subject to the same provisos, in terms of the estimated overall impact on employer contributions to the RPS. For this purpose the employer's share of cost has been assumed to be 60% and this has been applied to a total payroll (sum of Section Pay for all Sections) of £2 billion. No attempt has been made to quantify the proportion of this total which might eventually be met by the taxpayer (see paragraphs 6.8 and 6.9).

Table 7.2 Impact on employer cost of changes in benefits for future service	
Benefit changes:	£m
Cost-neutral early retirement factors for actives	19-23
Increase pension age to 62	28-34
Increase pension age to 65	65-78
Cap future increases in Section Pay by CPI	44-53
Reduce pension accrual rate from 1/60th to 1/70th	40-48
Reduce pension accrual rate from 1/60th to 1/80th	70-84
Abolition of additional lump sum on retirement	20-25
Change from final pay to CARE (pay revalued by CPI)	44-53

- 7.6 In addition to the above, cessation of BRASS matching contributions (as recommended by the RPC in its final report) would save £20m p.a. in 2009 terms. It is difficult to see why this particular change should not be made, if only on the grounds of equity between different groups of members within a shared cost scheme.
- 7.7 The extent to which changes can be made to benefits in respect of past service is extremely limited. Such benefits are protected by legislation, the Rules of the Scheme and probably also by human rights considerations. The change from RPI to CPI, discussed earlier in this report, is almost certainly at the limit of what can be achieved in this area.

Advantages and disadvantages

- 7.8 There is a widespread perception that final pay pension provision is inherently superior to CARE or money purchase provision. This is not the case. The key determinant of the generosity of a pension scheme is the contribution rate required. Once a contribution rate has been established, then the scheme design (whether final pay, CARE, money purchase) serves to determine the division of the emerging benefits between the members. Final pay schemes tend to favour long-serving employees and in particular those with rapid real pay growth, whereas CARE schemes tend to favour shorter service employees and steadier career paths, and money purchase schemes benefit those who are well-advised (or lucky) in their investment choices.
- 7.9 The environment in terms of pension provision is continuing to develop and the report of the Independent Public Service Pensions Commission, described in paragraph 4.4 above, recommends significant changes to the major public sector final pay schemes. It is becoming less acceptable for public money to be used to provide retirement at age 60 (or earlier) with an index-linked final salary pension.
- 7.10 As explained in paragraphs 3.3 and 3.4, the RPC identified features of the RPS (notably the favourable early retirement terms and BRASS matching) that tend to favour the higher-paid over the lower-paid. It is difficult to make a case for retaining these features in today's environment.

- 7.11 Making any of the changes described in the table above, if they were to apply to Protected Persons, would require an amendment to the rules of the RPS and hence the Protection Order, thus requiring secondary legislation.
- 7.12 The investment strategy operated by the RPS represents a significant risk to its members and their sponsoring employers and it is fortunate that the actuarial valuation was not due as at the end of 2008 or 2009. However, the risk is real and, given the nature of the Scheme and, in particular its shared cost basis, there is the possibility of serious instability if a triennial valuation were undertaken in less favourable circumstances. It would obviously be preferable for the issues to be addressed before such a funding crisis emerges.
- 7.13 However, it must also be appreciated that any substantial move to “de-risk” the assets of the RPS would have cost consequences in terms of a reduced ability to take credit in advance for future outperformance. This aspect should be considered in more detail before any decision were taken to move in this direction.

8. CONCLUSIONS

- 8.1 The RPS, which was set up on privatisation of the railway industry, provides its members with relatively favourable benefits which are enshrined in legislation. It is a sectionalised scheme in which the active members pay 40% of the contributions. The employers (other than government) paid £361m to the RPS in 2009.
- 8.2 In 2008, the RPC made a series of recommendations relating to pension provision in the railway industry. For various reasons, the majority of these recommendations have not been acted upon. Nevertheless, the underlying problems in the RPS, many of which are the same as affect other pension schemes, have not been resolved.
- 8.3 A full actuarial valuation of the RPS is currently being carried out with an effective date of 31 December 2010. Results are expected later in 2011, but approximate calculations indicate that a funding crisis is unlikely, largely because of the change of indexation from RPI to CPI and an improvement in equity markets.
- 8.4 Nevertheless, the funding and investment strategy followed by the RPS contains a significant degree of risk that, because of the shared cost nature of the scheme, is shared between the members and employers. If an actuarial valuation were to fall due at a time when market values were depressed, the additional contributions required could have a material financial impact on the active members and sponsoring employers and, ultimately, threaten the stability of the Scheme
- 8.5 Changes to the benefits provided by the RPS could be made, subject to the normal negotiation and consultation requirements. In addition, any change to the benefits of Protected Persons would require secondary legislation.
- 8.6 Some benefits of the RPS are inequitable and out of line with current practice and these should be reviewed.
- 8.7 It is not true to say that pension provision on a CARE or money purchase basis is inherently inferior to a final pay basis.
- 8.8 I acknowledge with thanks the help and support given by members of the industry, rpmi staff, James Wintle of Towers Watson, and in particular Bryn Davies who provided calculations and peer reviewed the draft report. I take full responsibility for the finished report, its content and conclusions.

Peter Thompson
March 2011

APPENDIX A – GLOSSARY

BRPS	British Railways Pension Scheme
CARE	Career Average Revalued Earnings
CPI	Consumer Prices Index
DfT	Department for Transport
DRA	Default Retirement Age
Indefeasible Right	A protection set out in Schedule 11 of the Railways Act 1993 which applies to any individual who at midnight on 4 November 1993 (i.e. immediately before the Railways Act received Royal Assent) was an employee of the British Railways Board or one of its subsidiaries <i>and</i> was a member of the BRPS. It confers on individuals the right to continue in the joint industry scheme (i.e. the RPS) for as long as they are employed in the railway industry.
JCR	Joint contribution rate: the total of contributions due from the employer and the employees.
Normal JCR	The JCR for future service benefits only (i.e. ignoring the effect of any surplus or deficit).
ORR	Office of Rail Regulation
PPF	Pension Protection Fund
Protected Person	An individual who at midnight on 4 November 1993 (i.e. immediately before privatisation) was an employee of the British Railways Board or one of its subsidiaries <i>and</i> was a member of the BRPS or one of a small number of other schemes. Protected Persons have a legal right to pension provision for their future service which is no less favourable than the relevant pension rights which he or she had under the BRPS.
RPC	Railway Pensions Commission
RPI	Retail Prices Index
rpm	The company which administers the RPS
RPS	Railways Pension Scheme
RVfM	Rail Value for Money
Scheme	Railways Pension Scheme
Section	When capitalised, refers to a part of the RPS operated by a single employer and funded separately from other parts of the RPS.
Section Pay	The pay upon which an active member's pension is calculated in a particular Section of the RPS.
TAS	Technical Actuarial Standard
Technical Provisions or TP	The liabilities of a defined benefit pension scheme calculated in accordance with the provisions of the Pensions Act 2004
TOC	Train Operating Company (i.e. a passenger train operator other than an open access operator)
tPR	The Pensions Regulator

APPENDIX B – LIST OF SOURCES

Paragraph	Reference	Source
1.2	Contributions and membership of RPS	RPS Annual Report & Accounts 2009
1.5	Dates of valuation results	RPS 2010 valuation: initial consultation and discussion paper
2.4	Benefits of the RPS	SI 1994/1433, available at http://www.legislation.gov.uk/uksi/1994/1433
2.5	Average member contribution to private sector defined benefit schemes	Office for National Statistics, <i>Occupational Pension Schemes Annual Report 2009</i>
2.6	Statement in House of Commons	<i>Hansard</i> , 20 May 1993, columns 235 and 236
2.13	RPS Sections	RPS Annual Report & Accounts 2009
2.14	Average fund sizes	Data provided by rpm
2.15	RPS funding positions	RPC, First Report, ISBN 978 1 84712 197 4, Ch. 1
3.3	Pressures in RPS	<i>Ibid</i> , Ch.4
3.5	Constraints of the Protection Order	<i>Ibid</i> , p.51
3.7 to 3.10	Summary of RPC recommendations	RPC, Final Report, ISBN 978 1 84712 332 9, p.4
3.11	RPC recommendation on deferred members	<i>Ibid</i> , p.25
3.12	Valuation results 2007	Data provided by rpm
4.2	Network Rail's CARE scheme	Information provided by Network Rail
4.3	Insolvency of Jarvis plc	www.jarvisplc.com and RPS Annual Report & Accounts 2009
4.4	Independent Public Service Pensions Commission	www.hm-treasury.gov.uk/indreview_johnhutton_pensions.htm
4.5	RPI and CPI	www.hm-treasury.gov.uk/2010_june_budget.htm
4.6	Default Retirement Age	www.bis.gov.uk/news/topstories/2011/Jan/default-retirement-age-to-end
5.1	Dates of valuation results	RPS 2010 valuation: initial consultation and discussion paper
5.2	Valuation results 2007	Data provided by rpm
5.3	Role of the Pensions Regulator	www.thepensionsregulator.gov.uk
5.5	Average funding levels	<i>Purple Book 2008</i> , The Pensions Regulator, December 2008, Table 4.1
5.6	Weighted average discount rates	<i>Recovery plans: assumptions and triggers</i> , The Pensions Regulator, December 2010, Table 2.1 (Tranche 3)

5.7	Covenant strength	Data provided by rpm
5.10, 5.11	Funding levels at the end of 2008 and 2009	Data provided by rpm
5.18	2010 actuarial valuation	RPS 2010 valuation: initial consultation and discussion paper
5.22, 5.23	Normal JCRs	Data provided by rpm
6.1	RPS asset allocation	Data provided by rpm
6.2	Average asset allocation	<i>Purple Book 2010</i> , The Pensions Regulator, December 2010, Table 7.1
6.4	Performance of Global Equity Pooled Fund	RPS Annual Report & Accounts 2009
7.6	RPC recommendation on BRASS	RPC, Final Report, ISBN 978 1 84712 332 9, p.26

APPENDIX C – EXAMPLES OF ARITHMETIC v. GEOMETRIC CONSTRUCTION

General

To obtain the *arithmetic* average of a set of n numbers, add them up and divide by n .

To obtain the *geometric* average of a set of n numbers, multiply them together and take the n th root.

Example 1

The *arithmetic* average of 4 and 6 is:

$$(4 + 6) / 2 = 5$$

The *geometric* average of 4 and 6 is:

$$(4 \times 6)^{1/2} = 4.9$$

Example 2

The *arithmetic* average of 5, 6, 7, and 8 is:

$$(5 + 6 + 7 + 8) / 4 = 6.5$$

The *geometric* average of 5, 6, 7 and 8 is:

$$(5 \times 6 \times 7 \times 8)^{1/4} = 6.4$$