

PRUDENTIAL ANNUITIES LIMITED

Returns for the year ended 31 December 2003

SCHEDULE 4

Valuation Report on Prudential Annuities Limited as at 31 December 2003

1. Date of investigation

The investigation relates to 31 December 2003.

2. Date of previous investigation

The previous investigation related to 31 December 2002.

3. Conformity with Rule 5.6

The valuation of long term insurance business liabilities shown in this report conforms with Rule 5.6 of the Interim Prudential Sourcebook for Insurers.

4. Description of non-linked contracts

(1) (c) Categories of in force non-linked business are as follows:

(i) Annuities in payment

These are non-profit annuities, written on either a single life or joint life and last survivor basis, which provide a level series of payments throughout the life of the annuitant(s), reducing where appropriate on the death of the first life, or incorporate a provision for payments to increase annually at a guaranteed rate. The annuity may incorporate a minimum guaranteed period of payment and may be enhanced where the policyholder suffers from a range of medical conditions that have an adverse impact on life expectancy.

(ii) Deferred annuities

These are non-profit deferred annuities, written on either a single life or joint life and last survivor basis, which are either single premium or fully paid-up contracts. Benefits are expressed as amounts of deferred annuity per annum payable at retirement. The benefit at retirement may be a level series of payments throughout the life of the annuitant(s), reducing where appropriate on the death of the first life, or incorporate a provision for payments to increase annually at a guaranteed rate. The annuity may incorporate a minimum guaranteed period of payment starting at retirement. On death before the end of the deferred period, a lump sum or dependant's annuity may be payable.

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5. Description of linked contracts.

- (1) (a) RPI-linked annuities.
 - (b) These contracts are classified as:
United Kingdom pensions business;
Business is written directly, and reinsurance is accepted and ceded.
Non-profit annuities in payment and in deferment.
 - (c) These are all single premium contracts.
 - (d) These are non-profit annuities, written on either a single life or joint life and last survivor basis, which provide a series of payments throughout the life of the annuitant(s), reducing where appropriate on the death of the first life, and which are revalued, annually, in line with the Retail Price Index. In some cases the annuity may incorporate a minimum guaranteed period of payment, the revaluation may have a maximum and/or minimum percentage increase, and the annuity may be enhanced where the policyholder suffers from a range of medical conditions that have an adverse impact on life expectancy.

One bulk scheme written by the company includes annuities in payment and deferred annuities, where the benefits are as described above and in 6(1)(h)(2), and a surplus account. The surplus account can be used to uplift members' benefits in line with annuity rates that were in force at the date the scheme was sold. This benefit has been valued in line with the main scheme benefits.
 - (e) There are no guaranteed investment returns other than those implicit in the guaranteed annuity benefit.
 - (f) The guaranteed annuity benefit is calculated incorporating an allowance for initial and renewal expenses and commission.
 - (g) Not applicable.
 - (h) Not applicable.
 - (i) See (d) above.
 - (j) None.
 - (k) The contract was open to new business during the year to the valuation date.
 - (l) Not applicable.
- (2) No linked contract contains a with-profits option.
- (3) Not applicable.

Valuation Report as at 31 December 2003 (continued)

(4) Not applicable.

(5) Not applicable.

(6) Not applicable.

6. Valuation principles and methods

(1) The mathematical reserve for annuities in payment is the present value of the annuities.

The mathematical reserve for RPI-linked annuities is, in general, determined without an explicit allowance for future increases in annuity payments, which is consistent with the treatment of the matching assets. The treatment of RPI-linked annuities which are subject to maximum and/or minimum percentage annual increases is described in 6(1)(h) below.

The mathematical reserve for non-profit deferred annuities is the present value of the annuity secured to date.

In particular, the following principles have been observed:

- (a) Derivative contracts held as at 31 December 2003 comprised:
- i) Contracts to swap US dollars for UK sterling LIBOR plus a fixed margin;
 - ii) Contracts to swap UK sterling LIBOR for fixed UK sterling;
 - iii) Contracts to swap fixed UK sterling for UK sterling LIBOR
 - iv) Contracts to swap fixed US dollars for fixed UK sterling
 - v) Contracts to swap fixed US dollars for US dollar LIBOR
 - vi) Contracts to swap US dollar LIBOR for UK sterling LIBOR
 - vii) A contract to swap fixed euros for fixed UK sterling
 - viii) Contracts to swap future income increasing at a fixed rate each year for income varying in line with changes in RPI/LPI (RPI subject to minimum and maximum increases)
 - ix) A contract to swap future floating UK sterling LIBOR for UK inflation linked cashflows

The effect of the contracts under i), ii), iv), v) and vi) is to convert cashflows from US dollar denominated bonds into fixed UK sterling cashflows.

The effect of the contracts under iii) combined with contracts under ii) is to lengthen the duration of fixed UK sterling cashflows.

The effect of the contract under vii) is to convert cashflows from euro denominated bonds into UK sterling cashflows.

The effect of the contract under viii) is to convert fixed UK sterling cashflows into RPI linked UK sterling cashflows.

The effect of the contract under ix) is to convert future UK LIBOR sterling cashflows into inflation linked UK sterling cashflows.

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The cashflows involved in these arrangements were included in the aggregate cashflows from the portfolio, to give the aggregate yield on the portfolio. This is in accordance with a waiver under section 148 of the Financial Services and Markets Act 2000 which was originally issued in December 1995 as a section 68 order under the Insurance Companies Act 1982.

- (b) Not applicable.
- (c) The net premium method has not been used.
- (d) There are no contracts where negative values could arise.
- (e) No reserve for future bonuses is required.
- (f) No provision for any prospective liability for tax on unrealised capital gains has been included in the mathematical reserves since the Company transacts pension business only and no capital gains tax liability is expected to arise.
- (g) Not applicable.
- (h) As described in 5(1)(d), some RPI-linked annuities are subject to maximum and minimum percentage increases. These fall into the following categories:
 - (1) RPI-linked annuities subject to a minimum annual increase of 0% and a maximum annual increase of 5%. For valuation purposes these are treated as being identical to normal RPI-linked annuities.
 - (2) RPI-linked annuities subject to a minimum annual increase of 2.5% and a maximum annual increase of 5%. For valuation purposes these are treated as annuities with fixed 5% annual increases.
 - (3) RPI-linked annuities subject to a minimum annual increase of 4% and a maximum annual increase of 8.5%. For valuation purposes these are treated as annuities with fixed 8.5% annual increases.
 - (4) RPI-linked annuities subject to a minimum annual increase of 3%. For valuation purposes these are treated as annuities with fixed 6% annual increases.

Although valued as fixed annuities, the annuities described under (2), (3) and (4) are included in these returns as linked business. Thus, in particular, Form 56 includes sufficient fixed interest assets to match the corresponding liabilities.

The company has also written deferred annuities where benefits include revaluation in deferment in line with RPI, followed by fixed escalations in payment. The revaluation in deferment is generally subject to a minimum annual increase of 0% and a maximum annual increase of 5%. For valuation purposes these are treated as annuities with fixed 5% annual revaluation in deferment followed by the actual fixed escalation in payment. These annuities are included in these returns as non-linked business.

Valuation Report as at 31 December 2003 (continued)

(i) The additional reserve includes £4,500,000 in respect of counterparty risks in connection with derivative contracts. The reserve is assessed based on counterparty exposure limits and arrangements for the use of collateral allowing for defaults in line with AA rated senior unsecured stock over the maximum outstanding term for each counterparty. The additional reserve also includes allowance for general contingencies.

(2) Not applicable.

7. Interest, mortality bases, resilience, etc.

(1) See Forms 51 and 54 and the notes to these forms. Enhanced annuities are valued using the tables specified in note 5101, but include a policy specific age adjustment to the mortality rate used.

(2) The mortality tables used are published tables.

(3) All business is written in the UK and UK-based mortality tables have been used.

(4) Annuities are generally valued using a percentage of the 92 series (year of birth) tables for annuitants and pensioners. In order to allow for mortality improvement, the CMIR 17 mortality improvement factors are applied up to and including 2004, and future improvement factors are applied from 2005 in line with the CMI medium cohort projections. Male future improvement factors are subject to a minimum of 2%. For some annuity contracts in deferment, a calendar year table is used; for these contracts a further deduction of 0.35% from the valuation rate of interest of 5.14% has been made during the deferred period, to allow for expected mortality improvements prior to vesting.

(5) No allowance is made or reserve is held, in addition to the assumptions in 7 (4) above, in respect of possible changes in the incidence of disease or development in medical science.

(6) The scenarios tested were:

(a) an immediate decrease of 1 percentage point in the rates of interest obtainable on fixed interest securities, an immediate decrease of 25% in real yields on index-linked stocks and an immediate fall in property values of 20%.

(b) an immediate increase of 2 percentage points in the rates of interest obtainable on fixed interest securities, an immediate increase of 25% in real yields on index-linked stocks and an immediate fall in property values of 20%.

Scenario (a) was the more onerous.

Valuation Report as at 31 December 2003 (continued)

As the effect of the derivatives described in 6 (1) (a) i) and iv) is to produce fixed UK sterling cashflows, irrespective of future exchange rates, the scenarios have been tested against the aggregate yield of the US dollar assets and their associated derivatives, using the methodology of the 148 waiver (originally issued as a section 68 order in December 1995).

Similarly, the effect of the swap contracts described in 6 (1) (a) viii) is to produce RPI / LPI linked sterling cashflows, and the scenarios have been tested against the aggregate yield of the non linked assets and their associated swap contracts.

- (7) The reserve required under Rule 5.17(a) of the Interim Prudential Sourcebook for Insurers is calculated by projecting:
- i) the risk adjusted cashflows from the assets held, including the assets backing the additional reserve held under rule 5.17(a), and
 - ii) the future liability payments on the valuation assumptions.

The cash-flow projection shows that there is in general an excess of income over outgo in the earlier years. These amounts are assumed to be invested in cash and are accumulated to meet the shortfall of asset income in later years. The cash investment rate is assumed to be 4.22%. In later years, where outgo exceeds income, the cash borrowing rate is assumed to be 6.22%. The additional reserve is set so that all liability cash-flows can, on these assumptions, be met as they fall due.

A total reserve of £140,305,000 was held at 31 December 2003.

- (8) (a) Valuation rates of interest are adjusted as shown in Form 57. No other assumptions are changed.
- (b) Assets are hypothecated to liabilities as shown in Form 57. The yields on assets shown in Form 57 have been adjusted by 0.50% and 0.40% to allow for defaults on fixed interest and RPI-linked assets respectively.
- (c) Under the scenario which produces the most onerous requirement:
- (i) the aggregate amount of the long term liabilities increased by £1,309,406,000 after allowing for the release of the mismatching reserve described in 7(7) above.
 - (ii) the aggregate amount of the assets backing these liabilities increased by £1,360,573,000.

Hence the reserve shown in 7(7) is adequate to cover the provision required in respect of Rules 5.17(a) and 5.17(b).

- (9) Liabilities are all in sterling. There are some US dollar and euro denominated assets; these assets with their associated derivatives produce income in UK sterling. See 6(1)(a) for details.

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8. Valuation of non linked business

- (a) Not applicable.
- (b) See Form 51.
- (c) Not applicable.
- (d) Not applicable.

9. Valuation of linked business

- (a) See Form 54 and 6 (1) above.
- (b) The annuity loadings in 10 (1) are calculated without assuming any contribution from the loadings in new business written after the valuation date.

10. Expenses

- (1) A real discount rate of 2.5% p.a. is used to convert prudent per policy renewal expenses into percentage of annuity loadings.

For immediate annuities, the implicit per policy loadings at the end of 2003, before inflation, were approximately £36 p.a.

Deferred annuities costs were assumed to be £5 p.a. per life during deferment and then as for immediate annuities in possession.

Investment management expenses are allowed for by deducting 0.1% p.a. from the valuation rates of interest. The valuation rates of interest in Forms 51, 54 and 57 (and the asset yields in Forms 48 and 57) are shown before this deduction.

Outgo on property maintenance costs and leases is allowed for directly in the valuation rates of interest used (and the assets yields shown in Forms 48 and 57 are shown after this deduction).

- (2) Based on the annualised annuity amounts in payment and deferment at 31 December 2003, the amount released to meet renewal expenses in 2004 will be £21,317,000. In addition, £13,489,000 will be released to meet investment management expenses (excluding outgo on property maintenance costs and leases).
- (3) New business premium rates incorporate a charge to cover acquisition and set-up costs. The annuity loadings in 10 (1) are calculated without assuming any contribution from the loadings in new business written after the valuation date.
- (4) An allowance for expenses arising from closure to new business, if closure occurred twelve months after the valuation date, has been compared with the margins in expense loadings arising from the in force business. As the costs are covered by the margins, no additional reserve is required.

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11. Currency matching

- (1) Not applicable.
- (2) Not applicable.

12. Reinsurance

Long term business is reassured on a facultative basis to a reinsurer who is authorised to carry on business in the UK.

13. to 16. Not applicable.

17. Changes in long term business

See Form 46.

Group non-profit deferred annuities are not included in Form 46. These consist of 1,382 schemes covering an estimated 70,484 lives, and 16,561 individual arrangements for non-linked contracts and 13,850 individual arrangements for linked contracts at 31 December 2003.

18. New business

See Form 47

19. Assets covering long term liabilities

- (1) See Forms 48 and 49. The yield shown for land and buildings in line 11 of Form 48 is net of expected outgo on management fees, maintenance costs and leases. This treatment is consistent with that adopted on Form 57. Similarly in Form 40 the outgo on property maintenance costs and leases is deducted from investment income. The outgo on property management fees, maintenance costs and leases amounted to £0.4m.
- (2) Changes in the amounts reported on Form 48 at 31 December 2003 which would result from the exercise of rights or obligations under derivative contracts or contracts having the effect of derivative contracts (assuming that options would be exercised only if it would be prudent to do so) are as follows:

Form 48	Column 1 £000's	Column 2 £000's	Column 3 %
Line 18	(38,314)	3,575	0.93
Line 29	(38,314)	3,575	0.03

- (3) Corresponding changes which would result from the exercise of all rights or obligations under derivative contracts, or contracts having the effect of derivative contracts are as follows:

Form 48	Column 1 £000's	Column 2 £000's	Column 3 %
Line 18	(38,314)	3,575	0.93
Line 29	(38,314)	3,575	0.03

Valuation Report as at 31 December 2003 (continued)

- (4) The maximum changes to the amounts if the conditions in (2) and (3) above had applied at any time during the year as follows:

Form 48	Column 1	
	Conditions noted in (2)	Conditions noted in (3)
	£000's	£000's
Line 18	(116,337)	(116,337)

20. Valuation Summaries

See Forms 51 and 54.

On Form 54 the figures shown in column 7 are the amounts of annuity per annum in payment; the figures in columns 11 and 12 are the total net liability including allowance for future mortality and expenses.

21. Matching Rectangle

- (1) See Form 57.
- (2) Aggregate yields have been adjusted by 0.50% and 0.40% to allow for potential defaults within the fixed interest and RPI-linked portfolios respectively.

The default allowance is determined from data supplied by our investment manager, which itself is based upon research carried out by one of the major rating agencies. This analysis, based on actual default experience over a 33 year period, produces mean default rates according to credit quality and term to redemption. Volatility is also analysed and standard deviations of the rates for each credit quality are provided.

In the event of default it may be possible to recover some capital, especially if the loan is secured. The allowance for recovery (or partial recovery) of the loan varies according to the level of security and the following recovery rates are assumed:

First Mortgage Debenture/Senior Secured	75%
Senior Unsecured	45%
Subordinated Debt	20%

To calculate the overall default provision, the corporate bond portfolio is broken down according to credit rating and level of security. The default rate for each category is assumed to be 150% of the appropriate mean default rate plus two standard deviations, reduced by the expected recovery. The derived default rates for each category are set out below:

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Default rates – basis points per annum:

Seniority	AAA	AA	A	BBB	BB	B and lower
First Mortgage Debenture/ Senior Secured	3.4	9.8	10.7	41.7	159.3	426.7
Senior Unsecured	7.4	21.6	23.6	91.8	350.4	938.8
Subordinated Debt	10.7	31.5	34.3	133.5	509.7	1,365.5

Regard is also paid to the yield differential between corporate and government bonds, and prevailing economic circumstances. Additional allowance for counterparty risks in connection with derivative contracts is included in the additional reserve described in 6(1)(i). The yields shown in Form 48 column 3 were calculated using the method of the section 148 waiver (the December 1995 section 68 order). The aggregate yields on the portfolio using the method of the section 148 waiver were also used to derive the valuation rates of interest in Form 57 Row 31.

- (3) The yield on property is the lower of the current rental yield and the “redemption yield”, which is the interest rate at which the market value equates with the present value of future rental income and the disposal value, in accordance with the section 148 waiver (previously issued as a section 68 order in December 1995). No allowance is made for any non-contractual increases in rental income. As an allowance for the risk of falls in value the disposal value is taken as 75% of the current market value. In Form 57 a further deduction is made to allow for the risk of default of rent. This deduction is the same as for fixed interest investments, as described in 21(2) above.

22. Valuation results

See Form 58.

23. Required minimum margin

See Form 60.

D J Belsham, Appointed Actuary