

CLAIMS RUN-OFF PATTERNS

UPDATE

presented to

General Insurance Study Group

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CLAIMS RUN-OFF PATTERNS - November 1992 update

Summary

1. The run-off patterns shown in the accompanying tables all relate to claim payments for direct insurance (and facultative reinsurance) business, before allowing for reinsurance recoveries and accounted for on a one-year basis. Four sets of tables are shown for each type of business analysed; they differ only as a result of the methodology used in the analysis.

2. The tables update those presented to the General Insurance Study Group (GISG) in October 1991, by including data from the 1990 returns in their calculation. The methodology derives from the report of the working party on claims run-off patterns presented to GISG in October 1989, and is described in some detail later in this report (paras 28 - 65).

Data

3. All the data came from Forms 33 of the returns which have to be made to the Department of Trade and Industry (DTI) by companies authorised to write business in the UK. Forms 33 (and for 3 year business Forms 35) constitute the most comprehensive set of claims run-off data available for UK companies. We are grateful to the DTI for allowing us to use this data. An example of Form 33 appears on the next page.

4. Subject to certain de minimis exceptions, the direct (and facultative reinsurance) business carried on by UK authorised insurance companies must be analysed into risk groups and for each risk group the run-off of the claims must be presented in Forms 33 (or 35). A risk group comprises risks constituting part of the business carried on in any one country within any one of the 8 non-treaty DTI accounting classes, "which, in the opinion of the directors, are not significantly dissimilar either by reference to the nature of the objects exposed to such risks or by reference to the nature of the cover against such risks given by the company".

5. The intention was that risk groups should be relatively homogeneous so that the run-off could be expected to be reasonably stable, but the definition is broad enough to permit considerable heterogeneity. Thus run-off patterns might be expected to vary considerably between different companies and within companies from year to year.

Returns under Insurance Companies Legislation

Form 33

General business: Analysis of claims by number and cost

Name of Company CO-OPERATIVE INSURANCE SOCIETY LIMITED

Financial year ended 31ST DECEMBER 1990

Country UNITED KINGDOM

Currency STERLING

Accounting class MOTOR VEHICLE

Risk group	PRIVATE CAR (COMPREHENSIVE)	Company registration number	Period ended				Monetary units	Country		Accounting class	For official use
			day month year					AA	2		
			31	12	19	90					
			F33	361SR	000						
		Number of claims		Amounts of pay- ments made in previous financial years relating to claims in column 1		4					
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6. It should be noted that from 1981 UK "home foreign" business has been treated as written in a different country from other UK business for the purpose of risk group definition. Thus for UK business currency movements should not distort the statistics. From 1981 also, private motor has had to be distinguished from other motor business and comprehensive private motor distinguished from non-comprehensive.

7. All the data analysed relates to UK business. The risk groups examined are Employers Liability (EL), Comprehensive Private Motor (Comp), Non-comprehensive Private Motor (Non-comp), and Fire. Most companies did not distinguish between Comp and Non-comp for years of origin prior to 1981, and Comp/Non-comp data were supplemented by Private Motor data for these years of origin. Although the data suggests that, from the fourth year of the run-off (ie omitting years 0-2), the claims run-off patterns are very similar, the run-off patterns for years 0-6 have been separately analysed.

8. Most of the data came from the DTI computer database rather than directly from the returns. Full data relating to payments before 1981 were not readily available; the total payments for each year of origin was available but not the split by year of payment.

9. The Form 33 data are gross in that they make no allowance for reinsurance recoveries (but subrogation recoveries and salvage are treated as negative claim

payments). The run-off patterns shown in the tables are therefore not immediately applicable to a net (of reinsurance) run-off. In general we would expect a net run-off to be shorter than a gross run-off, partly because reinsurance recoveries relate mainly to the larger claims which may by their nature take longer to settle, and partly because of the time taken to make reinsurance recoveries.

Data discrepancies and distortions

10. Comparisons for a year of origin between box 19.3 of Form 33 (payments in previous years of the run-off) and the sum of boxes 19.3 and 19.2 (payments in the year) in the previous year's returns revealed a number of discrepancies. These were investigated and the data adjusted as appropriate. (See section A5 of the 1989 report.) In cases where no explanation for the discrepancy was available the incremental payments figures (19.2) were used in preference to the cumulative payments (19.3).

11. The existence of data discrepancies should be considered before drawing conclusions about individual companies from the run-off patterns shown. The possibility of errors not signalled by data discrepancies also needs to be borne in mind.

12. The employers liability statistics include latent disease claims, both in the payments and outstanding (notified and IBNR) figures. There is normally no uniquely correct way of allocating such claims to a year of origin and thus some distortion of the statistics is inevitable.

13. Many companies discount at least part of their liability for outstanding employer liability claims. No allowance is made for this feature when calculating tail factors. Thus for those companies the claims tail is somewhat longer than shown in the tables.

14. The later years of run-off for the fire risk group show negative payments, believed to be mainly subrogation recoveries from liability insurers. For the most part such recoveries would appear not to be anticipated in the estimates of outstandings (presumably the result of applying prudent accounting principles), which leads to an inconsistency. Where large risks are reinsured facultatively, the same claims amount can appear in the returns of more than one company leading to doublecounting in the total and possible distortions.

Tail factors

15. Tail factors were obtained by averaging using company estimates for the three earliest years (75-77 or, for fire, 81-83). They assume that the company estimates are correct, are not discounted (explicitly or

implicitly), and make full allowance for future inflation. To the extent that these assumptions are incorrect, the tail factors are wrong.

16. The procedure adopted can give somewhat peculiar results when payments in the last two years of the run-off are compared with assumed payments thereafter. (Note this does not affect the motor tables.) This particularly affects the fire risk group because, as noted above, recoveries tend not to be anticipated in company estimates of outstandings.

Mean terms

17. Mean terms are presented as a simple means of indicating the length of a run-off pattern into a single figure and facilitating inter-company comparisons. Knowledge of mean terms enables the approximate impact of discounting, for instance, to be estimated (though choice of run-off pattern given the mean term can sometimes materially affect the result of discounting).

18. Negative claim payments can lead to peculiar mean terms. When there are negative payments, for arithmetical reasons the value of a mean term can be very sensitive to the precise run-off pattern. This explains why for the Fire risk group and for some companies very different numbers appear in different tables at the later durations.

19. In calculating mean terms we assumed that all payments were evenly spread throughout the year of payment. This is of course an oversimplification, and individual companies, whose own data is likely to be more detailed, can and do use other assumptions internally. For the specific purpose of intercompany comparisons we do not consider that our assumption is likely to cause serious distortion.

20. Arbitrary assumptions were made regarding the mean terms of the tails of the run-off patterns. While curve fitting techniques could have been used, we considered that the results would have been of limited accuracy and likely to introduce spurious differences between companies.

21. The mean term of outstanding claims was assumed to be four years for employers liability at the end of the sixteenth year, two years for motor at the end of the fourteenth year, and two years for fire at the end of the tenth year. The effect of alternative assumptions on the weighted mean term of the aggregate data is shown.

22. The weighted mean term is shown as a particular indicator of the overall mean term of a company's claims liabilities. The weights used were the proportions outstanding based on the run-off pattern, rather than

the amounts outstanding at each duration. While the latter weighting is more usual, it reflects changes in the size of the account and to use it would lead to such changes distorting inter-company comparisons.

Estimation of run-off patterns

23. The problem of estimating run-off patterns from a set of run-off data mostly arises in the context of the estimation of outstanding claims or the validation of an outstanding claims provision. Most statistical methods of estimating outstanding claims generate, implicitly or explicitly, a run-off pattern which is then assumed to apply for the purpose of estimation.

24. We have used four estimation methods. Three are familiar in the context of outstanding claims estimation/verification: basic chain ladder (BCL), inflation adjusted chain ladder (IACL) and an average claim method (AVC). The fourth (company incurred - CI) is an ad hoc method based, inter alia, on the assumption that, at all durations, a company's outstanding claims estimate is correct and undiscounted.

25. The negative payments in the tail of the Fire risk group, together with the fact that estimates of outstandings are generally positive, makes the company incurred method unstable in the tail. The run-off patterns for the CI method for Fire therefore do not distinguish individual years at durations 5 and over

(except for the aggregate). Mean terms have not been calculated since they would not be comparable with those calculated using the other methods. Therefore, except in the aggregate, mean terms have not been calculated in this case.

Inflation

26. The index of average earnings (Department of Employment index, all employees, June value) was used in the inflation adjusted chain ladder and average claim methods for EL and motor. For the Fire risk group, the construction output index of producer prices, published in the CSO Monthly Digest of Statistics, was used. The run-off patterns shown for the IACL and AVC methods assume inflation of 8% throughout in line with our working assumption about future inflation.

27. For the IACL and AVC methods it was necessary to make an assumption about the assumptions made by companies for future inflation when setting claims reserves. We have made the same 8% assumption as in the 1991 report. We believe this to be a not unreasonable assumption to have made in the early part of 1991, when the 1990 returns were being finalised, and thus reasonably consistent with most companies' claims estimates.

Calculation of run-off patterns

Fire: Basic Chain ladder (BCL)

28. The data are payments in each year 1981-90 and the company's outstanding claims estimates as at 31.12.90, for each year of origin (ie year of occurrence of claim) 1981-90.

29. Cumulative payments were calculated and from these the standard chain ladder ratios $r(0), \dots, r(8)$ were formed (ie the link ratios were averaged, using the cumulative payments as weights). The tail factor $r(u)$ was calculated as the arithmetic average of the following three ratios for the years of origin shown:
(1981) total claims (paid + outstanding) / paid claims;
(1982) total claims / paid claims / $r(8)$;
(1983) total claims / paid claims / $r(7) \cdot r(8)$.

30. The ratios $r(0), \dots, r(8), r(u)$ then define the run-off pattern.

Fire: Inflation Adjusted Chain Ladder (IACL)

31. The data were the same and the method similar except that the payments were adjusted to 1990 values by multiplying by the ratio of (construction output) index values for 1990 to that for the year of payment, before calculating cumulatives.

32. The calculation of the tail factor $r(u)$ was more complex and took the company's estimate to be an undiscounted money estimate. In the expressions below: PAID is cumulative paid at 1990 values; $r(7)$ and $r(8)$ are as for BCL but calculated using indexed payments; $R(8)=1.08(r(8)-1)$; $R(7)=1.08^2(r(8)-1)r(7)+1.08(r(7)-1)$; $F=1.08^{2.5}$; F adjusts 1990 outstandings at the end of 1990 to mid 1990 values - as payment is assumed to be on average 2 years after end 1990. $r(u)$ was estimated as 1 + the arithmetic average of the following three ratios:

(1981) outstandings / PAID / F;

(1982) {outstandings - PAID.R(8)} / PAID.r(8) / 1.08F;

(1983) {outstandings - PAID.R(7)} / PAID.r(7)r(8)/1.08²F.

33. The ratios $r(0), \dots, r(u)$ then define the indexed run-off pattern. As the patterns quoted were to be those appropriate to an 8% inflation assumption, the following payment ratios were used:

1, $1.08(r(0)-1)$, ..., $1.08^9 r(0) \dots r(7)(r(8)-1)$,

$1.08^{11.5} r(0) \dots r(8)(r(u)-1)$.

Fire: Average Claim Method (AVC)

34. The data include also number, $N = N(Y)$, of claims as estimated at the end of each year of origin, Y.

Average payments per claim in 1990 values were calculated at each duration for each year of origin as claim payments in the year at 1990 values (calculated as in para 31) divided by N.

39. Then the run-off pattern consists of the arithmetic averages (over Y) of $r(Y,0), \dots, r(Y,9), o(Y,9)$.

Employers Liability (BCL)

40. The data were payments in each year 1981-90 and the company's outstanding claims estimates as at 31.12.90, for each year of origin 1975-90; and cumulative payments to the end of 1980 for the years of origin 1975-80.

41. The calculations were as described in para 29 except that care was needed in calculation of the $r(i)$ owing to the missing cumulative payments. The tail factor was calculated by averaging over the 3 years 1975-77, using $r(13)$ and $r(14)$ in place of $r(7)$ and $r(8)$.

Employers Liability (IACL)

42. The data were as in para 40. Paras 32 and 33 largely indicate how the calculations in para 41 were modified, but the earnings index (June value) was used in place of the construction output index. In the calculation of $r(u)$, $F=1.08^{4.5}$.

43. For the purpose of indexing cumulative payments to the end of 1980, the IACL was used in reverse. The following indicates the procedure. Payments for the 1979 year of origin were assumed to be split between 1979 and 1980 in the ratio $I(79): I(80) \cdot (r(0)-1)$, where I denotes the relevant index value and $r(0)$ was derived

35. The arithmetic averages, $A(0), \dots, A(9)$, of these quantities defined the indexed run-off pattern to year 9. $A(u)$ was then defined as the arithmetic average of:

(1981) $\text{outstandings} / N / F$

(1982) $(\text{outstandings} - 1.08A(9).N) / N / 1.08F;$

(1983) $(\text{outstandings} - 1.08A(8).N - 1.08^2A(9).N) / N / 1.08^2F.$

36. The patterns quoted are those appropriate to 8% inflation, and so use payment ratios of $A(0), 1.08A(1), \dots, 1.08^5A(6), 1.08^{11.5}A(u).$

Fire: Company Incurred Method (CI)

37. The data were precisely those specified in para 28. For each year of origin the payments in each year of run-off were expressed as a proportion of the total incurred claims (ie total payments to end 1990 plus outstandings).

38. This triangle of ratios $r(Y,n)$ (Y is year of origin, n is year of run-off, $Y+n < 1991$) was extended to complete the square $n < 10$, working from left to right, using the formulae $r(Y,n) = o(Y,n-1).f(n)$ and $o(Y,n) = o(Y,n-1) - r(Y,n)$. In these formulae, $o(Y,n-1)$ is the proportion assumed outstanding for year of origin Y at the start of year n of the run-off; ie $o(Y,n-1) = 1 - r(Y,0) - \dots - r(Y,n-1)$. $f(n)$ is the sum (over Y) of the given $r(Y,n)$ divided by the sum of the corresponding $o(Y,n-1)$.

from years of origin 1980-86. This enabled the 1979 data to be used in the calculation of $r(1)$, $r(2)$, etc. Similar, but more complex, formulae were used for the earlier years of origin.

Employers Liability (AVC)

44. The number of claims as estimated at the end of the year of origin was not part of our data for years of origin 1975-80. The data included the number of claims as estimated at the end of each year 1981-90. The number of claims as at the end of the year of origin could then be estimated for these years using chain ladder techniques in reverse (cf para 43).

45. The calculations were as in paras 34-36 (with obvious modifications) averaging indexed payments per claim for payments in 1981-90 for each year of run-off (1980-90 for run-off year 0).

Employers Liability (CI)

46. As in para 37 the ratios $r(Y,n)$ were calculated. Initially $r(Y,n)$ was only available for $1980 < Y+n < 1991$ and $(1980,0)$. Also, of course, $c(1990-n,n)$ and $c(1980-n,n)$ were available, where $c(Y,n)$ is as in para 38 and $c(Y,n)$ is the (assumed) proportion of payments for year Y paid by the end of run-off year n ; i.e. $c(Y,n) = r(Y,0) + \dots + r(Y,n)$.

47. The $r(y,n)$ for $Y+n>1990$ were calculated as in para 38. For $Y+n<1981$ they were calculated, working from right to left, using the formulae $r(Y,n)=c(Y,n).g(n)$ and $c(Y,n-1)=c(Y,n)-r(Y,n)$. $g(n)$ is the sum (over Y) of the given $r(Y,n)$ divided by the sum of the corresponding $c(Y,n)$. $r(y,0)$ is of course $c(Y,0)$.

Motor (5 companies)

48. For five companies separate Comp and Non-comp data was available for the years 1975-80. For these companies the methods described in paras 40-47 were used, except that in the IACL and AVC methods payments in the extreme tail were assumed to be subject to 2 years additional inflation and not 4. Proportions paid in years 14, 15 and later were aggregated after concluding the calculations. Mean terms at the start of year 14 were then taken to be 2 years for consistency with other companies.

Motor (BCL)

49. The data include payments in each year 1981-90 for each year of origin 1981-90, for Comp and Non-comp separately. For Private Motor the data are as described in para 40. The Private Motor data for years of origin 1981-90 were obtained by adding the data for Comp and Non-comp.

50. Chain ladder ratios $r(0), \dots, r(5)$ were calculated separately for Comp and Non-comp as described in para 29.

51. To extend the run-off pattern to the right, ratios were derived from Private Motor data relating to payments after year 2. To this end, payments in years 0-3 were estimated for years of origin 1975-76, using BCL methods on the Private Motor data. Using these estimates we constructed a triangle of cumulative payments, excluding payments in years 0-3, with the first entry for 1975 missing.

52. The chain ladder factors derived from this table may be called $q(4), q(5)$ (not used), $q(6), \dots$. As $q(13)$ and $q(14)$ were not used, $q(u)$ was taken as 1 + the arithmetic average of:

(1975) (outstandings + paid in 89-90)/(paid in 79-88)
(1976) (outstandings + paid in 1990)/(paid in 1980-89)
(1977) outstandings/(paid in 1981-90)

53. The $q(6), \dots, q(12), q(u)$ derived from the Private Motor data were used together with $r(0), \dots, r(5)$ for Comp or Non-comp to derive the payment pattern. So, except for the five companies referred to in para 48, the tail of the derived pattern has the same shape for Comp and Non-comp.

Motor (IACL)

54. The data were as in para 49. Payments were adjusted to 1990 values as described in paras 31 and 43, using the earnings index.

55. $q(6)$, ..., $q(12)$ were derived much as described in paras 51 and 52, and formulae similar to those in para 52 were used to define $q(u)$. The differences were that the paid amounts were indexed to 1990 values and the outstanding amounts divided by $F=1.08^{2.5}$.

56. The indexed run-off pattern defined by $r(0)$, ..., $r(5)$, $q(6)$, ..., $q(12)$, $q(u)$ was converted to one appropriate to 8% inflation in the way described in para 33. Again, except for five companies, this forces the tail to have the same shape for Comp and Non-comp.

Motor (AVC)

57. The data included also the number of claims as estimated at the end of the year of origin separately for Comp and Non-comp. $A(0)$, $A(1)$, ..., $A(6)$ were estimated as described in paras 34 and 35, using the earnings index.

58. The run-off patterns were completed using the ratios $q(6)$, ..., $q(u)$ obtained for the IACL (para 55) and the patterns quoted were those appropriate to 8% inflation. So, except for five companies, the shape of the derived tail is the same as for the IACL.

Motor (CI)

59. The data included the outstandings as at the end of 1990 for years of origin 1981-90, for Comp and Non-comp separately; and for years 1975-80, for Private Car.

60. For Comp and Non-comp separately, $r(Y,n)$ and $o(Y,n)$ were calculated as described in para 38 for $n < 7$ ($1980 < Y < 1991$). The Private Car data (including Comp and Non-comp for years of origin 1981-90) was analysed as described in para 38 so as to compute the $f(n)$ appropriate to Private Car. The $f(n)$ so computed were used in place of the $f(n)$ computed from Comp or Non-comp data to calculate $r(Y,n)$ and $o(Y,n)$ for $n > 6$.

61. Then the run-off pattern consists of the averages (over $1980 < Y < 1991$) of $r(Y,0)$, ..., $r(Y,13)$, $o(Y,13)$. Clearly the shape of the derived tail is the same for Comp and Non-comp.

Mean term

62. Mean terms were calculated from the run-off patterns assuming, in each case, that on average payments in a year were at mid-year and that the payments after the last year shown separately were 2 years (4 years for EL) after the end of that year. The mean terms were calculated as at the beginning of each year of the run-off and are shown in the following tables.

Weighted mean terms

63. For Fire these are weighted averages of the derived mean terms of claims outstanding at the start of years 1,2,...,10 of the run-off. The weights are the proportions outstanding at these durations according to the derived run-off pattern. Thus the weighted mean terms are unaffected by changes over time in the amount of claims payments. They are intended as a one parameter index for comparison of the overall length of the run-off of claims incurred between companies, and are not appropriate for use within a company where it would be appropriate to weight by the estimated amounts outstanding.

64. For EL these are weighted averages of mean terms as at the start of years 1,...,16. For motor as at the start of years 1,...14.

Alternative assumptions for mean terms

65. For the IACL and AVC methods appropriate changes were made to the formulae to allow for these. In particular F was altered. For the BCL and CI methods these assumptions had no effect on the run-off patterns shown, though obviously the assumption about the mean term of the tail affected all the mean terms quoted.

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C A Buchanan

Peter R. L.

Index to Tables

RUN-OFF PATTERNS & MEAN TERMS

In the following tables "size" is the total of the claims payments included in the analyses, excluding payments relating to years of origin 1975-80 for the motor risk groups.

1.	Fire	IACL	Run-off patterns
2.			Mean terms
3.		BCL	Run-off patterns
4.			Mean terms
5.		AV CLAIM	Run-off patterns
6.			Mean terms
7.		CO INC	Run-off patterns
8.			Aggregate data
9.	EL	IACL	Run-off patterns
10.			Mean terms
11.		BCL	Run-off patterns
12.			Mean terms
13.		AV CLAIM	Run-off patterns
14.			Mean terms
15.		CO INC	Run-off patterns
16.			Mean terms
17.	COMP	IACL	Run-off patterns
18.			Mean terms
19.		BCL	Run-off patterns
20.			Mean terms
21.		AV CLAIM	Run-off patterns
22.			Mean terms

23.	COMP	CO INC	Run-off patterns
24.			Mean terms
25.	NON-COMP	IACL	Run-off patterns
26.			Mean terms
27.		BCL	Run-off patterns
28.			Mean terms
29.		AV CLAIM	Run-off patterns
30.			Mean terms
31.		CO INC	Run-off patterns
32.			Mean terms

WEIGHTED MEAN TERMS

33.	FIRE
34.	EL
35.	COMP
36.	NON-COMP

Risk Group : FIRE		Method : INFLATION ADJUSTED CHAIN LADDER									
Future Inflation 8.00%		RUN-OFF PATTERN PER MILLE									
Name	Size	0	1	2	3	4	5	6	7		
Avon	52,906	453	389	85	30	18	8	6	0		
Britannic	4,262	563	370	51	12	6	0	-1	-1		
Commercial Union	881,184	464	391	96	29	15	4	2	0		
Co-operative	65,431	543	350	71	22	3	5	2	1		
Cornhill	65,646	497	396	67	19	16	5	1	0		
Eagle Star	1,268,211	513	367	67	24	14	4	5	2		
Ecclesiastical	177,641	242	562	109	33	6	3	2	2		
Economic	27,736	500	388	65	20	8	6	3	0		
General Accident	566,996	464	414	77	26	12	4	1	-1		
Guardian Royal	1,011,749	517	373	68	23	5	7	2	0		
Ins. Co. of North America	47,610	326	428	118	43	45	8	10	5		
Iron Trades Mutual	37,104	543	403	48	7	-3	3	0	-2		
Legal & General	112,984	417	448	128	27	12	0	1	-1		
Minster	18,396	401	420	129	46	11	-16	7	0		
Municipal General	137,005	602	354	24	11	9	2	-4	0		
Municipal Mutual	568,718	278	334	192	94	47	28	13	7		
Nat. Farmers Union Mutual	169,755	618	362	24	-1	-1	-2	0	0		
Norwich Union	251,307	419	444	101	23	11	3	-2	-2		
Provincial	91,463	506	396	59	25	-2	-3	1	1		
Prudential	196,465	497	405	70	18	5	1	1	-1		
Refuge	28,355	728	231	31	7	1	1	3	-3		
Royal	499,011	477	423	87	18	-4	-1	0	-2		
Sun Alliance & London	2,080,879	495	373	79	27	12	7	3	1		
Wesleyan & General	27,157	639	275	38	14	5	6	5	3		
TOTAL	8,387,971	471	386	87	30	13	6	3	1		

Risk Group : FIRE
Future Inflation 8.00%
Name

Method : INFLATION ADJUSTED CHAIN LADDER
PATTERN PER MILLE (contd.)

	8	9	10+
Avon	2	0	10
Britannic	0	0	0
Commercial Union	-5	-3	7
Co-operative	0	0	3
Cornhill	-1	0	1
Eagle Star	1	-10	12
Ecclesiastical	4	0	36
Economic	0	0	11
General Accident	0	-1	4
Guardian Royal	1	0	3
Ins. Co. of North America	4	0	14
Iron Trades Mutual	1	0	0
Legal & General	-74	2	40
Minster	0	0	3
Municipal General	0	0	1
Municipal Mutual	1	0	4
Nat. Farmers Union Mutual	-1	0	2
Norwich Union	4	-12	9
Provincial	0	0	17
Prudential	1	0	4
Refuge	0	0	0
Royal	1	0	0
Sun Alliance & London	0	1	2
Wesleyan & General	11	0	4
TOTAL	-1	-2	6
TOTAL based on 1989 data	1	4(9+)	

Risk Group : FIRE		Method : INFLATION ADJUSTED CHAIN LADDER									
Future Inflation 8.00%		MEAN TERMS									
Name	0	1	2	3	4	5	6	7			
Avon	1.43	1.19	1.90	2.51	2.87	3.52	3.84	4.42			
Britannic	1.02	.69	.72	.42	-.81	2.04	1.04	.50			
Commercial Union	1.28	.95	1.16	1.44	1.80	4.69	13.06	-48.21			
Co-operative	1.15	.92	1.31	1.91	3.04	2.65	3.33	3.77			
Cornhill	1.18	.85	1.16	1.24	.90	1.13	5.01	-18.04			
Eagle Star	1.25	1.04	1.70	2.22	2.67	3.93	4.50	7.37			
Ecclesiastical	1.90	1.34	2.77	4.63	6.12	5.78	5.17	4.44			
Economic	1.28	1.06	2.02	3.11	3.97	4.29	4.94	5.00			
General Accident	1.25	.90	1.25	1.53	1.92	3.32	6.01	7.43			
Guardian Royal	1.19	.93	1.38	1.83	2.47	2.27	3.18	3.47			
Ins.Co. of North America	1.80	1.42	2.03	2.43	2.39	3.46	3.21	3.40			
Iron Trades Mutual	1.02	.63	.58	.20	.95	-.90	1.23	.13			
Legal & General	1.21	.72	.46	-1.29	.04	-.80	-1.81	-2.71			
Minster	1.35	.92	.91	.96	4.44	-3.46	1.93	4.77			
Municipal General	.97	.68	1.15	.95	.60	-1.63	-1.02	5.00			
Municipal Mutual	2.02	1.61	1.56	1.60	1.63	1.60	1.77	2.09			
Nat. Farmers Union Mut.	.90	.55	.40	.02	-1.10	-3.05	-164.17	20.10			
Norwich Union	1.29	.85	1.00	1.43	2.20	18.50	-10.35	-70.37			
Provincial	1.28	1.07	2.39	4.24	9.78	7.42	5.46	4.63			
Prudential	1.17	.83	1.21	1.94	3.39	4.65	4.80	5.41			
Refuge	.83	.70	.84	.91	.85	.01	-2.08	.16			
Royal	1.14	.72	.63	.49	-.48	-13.27	9.09	10.51			
Sun Alliance & London	1.25	.99	1.39	1.71	1.95	2.12	2.78	3.57			
Wesleyan & General	1.13	1.24	2.60	3.29	3.39	2.88	2.55	2.10			
TOTAL	1.30	1.02	1.42	1.82	2.28	2.93	3.98	5.57			
TOTAL based on 1989 data	1.29	1.02	1.42	1.78	2.20	2.67	3.06	3.13			

Risk Group : FIRE
Future Inflation 0.00%
Name

Method : INFLATION ADJUSTED CHAIN LADDER
MEAN TERMS (contd.)

	8	9	10+
Avon	3.47	3.00	2.00
Britannic	--	--	--
Commercial Union	-25.50	4.85	2.00
Co-operative	4.25	3.25	2.00
Cornhill	-18.76	3.00	2.00
Eagle Star	12.84	15.24	2.00
Ecclasiastical	3.65	3.00	2.00
Economic	4.00	3.00	2.00
General Accident	4.46	4.10	2.00
Guardian Royal	2.85	2.91	2.00
Ins.Co. of North America	3.15	3.00	2.00
Iron Trades Mutual	.16	3.00	2.00
Legal & General	-3.79	2.90	2.00
Minster	3.54	3.00	2.00
Municipal General	4.00	3.00	2.00
Municipal Mutual	3.24	3.08	2.00
Nat. Farmers Union Mut.	8.48	3.00	2.00
Norwich Union	16.38	-9.40	2.00
Provincial	3.98	3.00	2.00
Prudential	3.55	3.00	2.00
Refuge	4.00	3.00	2.00
Royal	1.37	2.00	2.00
Sun Alliance & London	3.36	2.21	2.00
Wesleyan & General	1.48	3.00	2.00
TOTAL	6.16	4.11	2.00
TOTAL based on 1989 data	2.47	2.00(9+)	

Risk Group : FIRE

Name	Size	RUN-OFF PATTERN PER MILLE							
		0	1	2	3	4	5	6	7
Avon	52,906	453	390	86	29	18	7	5	0
Britannic	4,262	565	368	48	14	7	0	-1	-1
Commercial Union	881,184	464	391	96	28	15	4	2	0
Co-operative	65,431	541	351	72	22	4	5	2	1
Cornhill	65,646	495	397	68	19	15	6	1	0
Eagle Star	1,268,211	514	368	67	23	14	4	5	2
Ecclesiastical	177,641	237	568	110	33	6	3	3	2
Economic	27,736	500	388	66	18	8	6	3	0
General Accident	566,986	464	413	78	26	11	4	1	-1
Guardian Royal	1,011,749	517	375	68	22	5	7	2	0
Ins. Co. of North America	47,610	336	425	114	39	47	8	10	4
Iron Trades Mutual	37,104	536	406	52	8	-3	3	0	-2
Legal & General	112,984	409	449	132	27	12	0	2	-1
Minster	18,396	406	417	128	46	12	-19	8	0
Municipal General	137,005	605	355	22	10	8	2	-3	0
Municipal Mutual	568,718	283	336	190	93	45	29	13	7
Nat. Farmers Union Mutual	169,755	612	366	26	-1	-1	-2	0	0
Norwich Union	251,307	413	445	105	23	12	3	-1	-1
Provincial	91,463	501	400	60	24	-1	-3	1	2
Prudential	196,465	501	401	70	18	5	1	1	-1
Refuge	28,355	727	228	34	8	1	1	3	-2
Royal	499,011	475	423	88	18	-4	0	0	-1
Sun Alliance & London	2,080,879	495	375	79	26	11	7	3	1
Wesleyan & General	27,157	640	275	39	13	5	7	5	3
TOTAL	8,387,971	471	387	87	29	13	6	3	1
TOTAL based on 1989 data	6,339,212	482	379	84	29	12	6	2	1

Risk Group : FIRE Method : BASIC CHAIN LADDER
 Name RUN-OFF PATTERN PER MILLE (contd.)

	8	9	10+
Avon	2	0	10
Britannic	0	0	0
Commercial Union	-4	-2	6
Co-operative	0	0	3
Cornhill	-1	0	1
Eagle Star	0	-8	10
Ecclesiastical	4	0	35
Economic	0	0	11
General Accident	0	-1	3
Guardian Royal	1	0	2
Ins. Co. of North America	4	0	13
Iron Trades Mutual	1	0	0
Legal & General	-68	1	37
Minster	0	0	2
Municipal General	0	0	1
Municipal Mutual	1	0	4
Nat. Farmers Union Mutual	-1	0	2
Norwich Union	3	-10	8
Provincial	0	0	16
Prudential	0	0	3
Refuge	0	0	0
Royal	1	0	0
Sun Alliance & London	0	1	2
Wesleyan & General	9	0	4
TOTAL	-1	-2	5
TOTAL based on 1989 data	1	4(9+)	

Risk Group : FIRE Method : BASIC CHAIN LADDER

Name	MEAN TERMS							
	0	1	2	3	4	5	6	7
Avon	1.41	1.17	1.84	2.45	2.82	3.56	3.90	4.54
Britannic	1.02	.70	.78	.50	-.51	2.06	1.06	.50
Commercial Union	1.28	.95	1.16	1.44	1.71	3.95	10.83	-57.46
Co-operative	1.15	.92	1.29	1.86	2.88	2.65	3.29	3.85
Cornhill	1.18	.85	1.15	1.25	.93	.95	5.36	-7.05
Eagle Star	1.24	1.02	1.66	2.18	2.61	3.79	4.19	6.75
Ecclesiastical	1.89	1.32	2.71	4.55	6.07	5.73	5.13	4.44
Economic	1.28	1.05	1.98	3.13	3.84	4.22	4.90	5.00
General Accident	1.25	.89	1.22	1.48	1.86	3.08	5.68	7.39
Guardian Royal	1.18	.91	1.36	1.81	2.45	2.24	3.22	3.54
Ins.Co. of North America	1.77	1.41	2.02	2.41	2.29	3.46	3.21	3.46
Iron Trades Mutual	1.03	.63	.57	.12	.68	-.74	1.20	.10
Legal & General	1.24	.75	.52	-.16	-.14	-.88	-1.90	-2.78
Minster	1.34	.91	.88	.87	5.62	-2.27	1.84	4.93
Municipal General	.96	.67	1.16	1.00	.66	-2.84	-1.21	5.00
Municipal Mutual	2.00	1.59	1.55	1.59	1.62	1.56	1.77	2.11
Nat. Farmers Union Mut.	.91	.55	.43	-.08	-1.29	-3.73	60.62	17.87
Norwich Union	1.30	.86	.99	1.41	1.94	10.36	-13.85	-659.65
Provincial	1.28	1.07	2.35	4.14	8.72	7.27	5.20	4.43
Prudential	1.16	.83	1.19	1.92	3.34	4.58	4.71	5.39
Refuge	.84	.73	.88	1.05	1.23	.51	-.48	.08
Royal	1.14	.72	.65	.59	-.87	25.70	6.45	7.55
Sun Alliance & London	1.25	.98	1.36	1.69	1.93	2.09	2.75	3.52
Wesleyan & General	1.12	1.22	2.53	3.22	3.31	2.76	2.54	2.12
TOTAL	1.30	1.01	1.39	1.80	2.24	2.84	3.87	5.42
TOTAL based on 1989 data	1.28	1.01	1.40	1.77	2.22	2.68	3.10	3.16

Risk Group : FIRE

Method : BASIC CHAIN LADDER
(contd.)

Name	MEAN TERMS		
	8	9	10+
Avon	3.50	3.00	2.00
Britannic	---	---	---
Commercial Union	-27.11	4.67	2.00
Co-operative	4.22	3.22	2.00
Cornhill	-27.74	3.00	2.00
Eagle Star	11.23	12.63	2.00
Ecclesiastical	3.68	3.00	2.00
Economic	4.00	3.00	2.00
General Accident	4.40	4.03	2.00
Guardian Royal	2.90	2.92	2.00
Ins. Co. of North America	3.17	3.00	2.00
Iron Trades Mutual	.22	3.00	2.00
Legal & General	-3.84	2.91	2.00
Minster	3.58	3.00	2.00
Municipal General	4.00	3.00	2.00
Municipal Mutual	3.26	3.07	2.00
Nat. Farmers Union Mut.	7.99	3.00	2.00
Norwich Union	13.31	-9.65	2.00
Provincial	3.98	3.00	2.00
Prudential	3.58	3.00	2.00
Refuge	4.00	3.00	2.00
Royal	1.49	2.14	2.00
Sun Alliance & London	3.44	2.27	2.00
Wesleyan & General	1.53	3.00	2.00
TOTAL	6.00	3.99	2.00
TOTAL based on 1989 data	2.51	2.00(9+)	

Risk Group : FIRE		Method : AVERAGE CLAIM									
Future Inflation 8.00%		RUN-OFF PATTERN PER MILE									
Name	Size	0	1	2	3	4	5	6	7		
Avon	52,906	471	370	81	31	19	9	6	-1		
Britannic	4,262	575	361	50	10	5	0	-1	-1		
Commercial Union	881,184	471	386	95	29	15	2	2	0		
Co-operative	65,431	535	356	72	22	2	5	2	1		
Cornhill	65,646	519	381	62	18	16	5	1	0		
Eagle Star	1,268,211	522	363	65	24	14	4	4	2		
Ecclesiastical	177,641	261	559	103	31	5	3	2	2		
Economic	27,736	526	374	60	19	5	6	2	0		
General Accident	566,996	468	410	77	26	12	4	1	-1		
Guardian Royal	1,011,749	531	364	66	22	5	6	2	1		
Ins. Co. of North America	47,610	362	442	104	30	34	6	6	4		
Iron Trades Mutual	37,104	467	460	65	9	-1	2	0	-2		
Legal & General	112,984	434	439	117	23	9	0	1	-1		
Minster	18,396	404	423	127	52	13	-30	8	0		
Municipal General	137,005	575	341	52	24	8	4	-5	0		
Municipal Mutual	568,718	283	330	193	95	46	26	13	8		
Nat. Farmers Union Mutual	169,755	631	352	21	0	-1	-2	-1	0		
Norwich Union	251,307	429	440	98	23	10	3	-2	-1		
Provincial	91,463	518	387	56	26	-2	-3	0	-1		
Prudential	196,465	504	400	68	18	4	1	1	-1		
Refuge	28,355	736	225	32	5	1	1	2	-2		
Royal	499,011	479	422	86	16	-2	-1	0	-2		
Sun Alliance & London	2,080,879	502	369	78	27	11	7	3	0		
Wesleyan & General	27,157	655	273	35	12	4	4	4	2		
TOTAL	8,387,971	479	381	85	30	12	6	3	1		
TOTAL based on 1989 data	6,339,212	481	378	85	30	13	5	2	1		

Risk Group : FIRE
 Future Inflation 8.00%
 Name

Method : AVERAGE CLAIM
 (contd.)

RUN-OFF PATTERN PER MILLE

8 9 10+

Avon	2	0	11
Britannic	0	0	0
Commercial Union	-3	-3	6
Co-operative	0	0	4
Cornhill	-1	0	1
Eagle Star	1	-9	10
Ecclesiastical	3	0	30
Economic	0	0	7
General Accident	0	-1	4
Guardian Royal	1	0	2
Ins. Co. of North America	4	0	7
Iron Trades Mutual	1	0	0
Legal & General	-48	1	25
Minster	1	0	2
Municipal General	0	0	1
Municipal Mutual	1	0	4
Nat. Farmers Union Mutual	-1	0	1
Norwich Union	3	-10	8
Provincial	0	0	19
Prudential	0	0	3
Refuge	0	0	0
Royal	1	0	0
Sun Alliance & London	0	1	2
Wesleyan & General	7	0	3
TOTAL	0	-2	5
TOTAL based on 1989 data	1	4(9+)	

Risk Group : FIRE		Method : AVERAGE CLAIM								
Future Inflation 8.00%		MEAN TERMS								
Name		0	1	2	3	4	5	6	7	
Avon		1.42	1.25	2.00	2.57	2.91	3.53	4.01	4.73	
Britannic		1.00	.68	.68	.37	-1.08	2.06	1.06	.50	
Commercial Union		1.26	.94	1.14	1.43	1.87	5.72	11.01	78.35	
Co-operative		1.17	.94	1.37	2.07	3.48	2.96	3.63	3.87	
Cornhill		1.15	.85	1.18	1.26	.92	1.18	5.39	-16.90	
Eagle Star		1.22	1.01	1.63	2.11	2.61	3.93	4.79	7.49	
Ecclesiastical		1.79	1.25	2.58	4.37	6.04	5.79	5.18	4.47	
Economic		1.20	.97	1.74	2.63	3.61	3.75	4.77	5.00	
General Accident		1.24	.90	1.24	1.52	1.91	3.36	6.57	7.68	
Guardian Royal		1.16	.92	1.36	1.78	2.42	2.26	3.15	3.42	
Ins.Co. of North America		1.59	1.20	1.79	2.25	2.12	3.12	2.91	2.92	
Iron Trades Mutual		1.11	.64	.56	.04	2.95	-8.22	1.27	.24	
Legal & General		1.19	.72	.49	-.61	.38	-.57	-1.59	-2.53	
Minster		1.31	.87	.76	.46	-.19	-.72	1.68	4.71	
Municipal General		1.05	.79	.95	.71	.35	.86	-.43	5.00	
Municipal Mutual		2.01	1.61	1.55	1.60	1.65	1.64	1.78	2.05	
Nat. Farmers Union Mut.		.88	.54	.31	.52	-.48	-1.82	-21.74	17.21	
Norwich Union		1.26	.84	.97	1.33	2.18	21.40	-7.94	-34.16	
Provincial		1.27	1.09	2.50	4.32	10.71	8.27	6.08	5.16	
Prudential		1.15	.81	1.13	1.73	3.11	4.43	4.71	5.37	
Refuge		.81	.68	.74	.76	.44	-.60	-9.43	.18	
Royal		1.13	.72	.64	.53	-.63	-5.13	15.05	17.89	
Sun Alliance & London		1.23	.97	1.33	1.62	1.88	2.08	2.84	3.74	
Wesleyan & General		1.05	1.09	2.31	3.05	3.28	2.87	2.52	2.12	
TOTAL		1.28	1.01	1.39	1.77	2.26	2.96	4.06	5.51	
TOTAL based on 1989 data		1.29	1.02	1.39	1.74	2.19	2.74	3.14	3.20	

Risk Group : FIRE
 Future Inflation 8.00%

Method : AVERAGE CLAIM
 (contd.)

Name	8	MEAN TERMS	
		9	10+
Avon	3.39	3.00	2.00
Britannic	--	--	--
Commercial Union	-119.82	5.42	2.00
Co-operative	4.16	3.16	2.00
Cornhill	102.52	3.00	2.00
Eagle Star	12.78	15.91	2.00
Ecclesiastical	3.73	3.00	2.00
Economic	4.00	3.00	2.00
General Accident	4.49	4.07	2.00
Guardian Royal	2.85	2.91	2.00
Ins.Co. of North America	2.80	3.00	2.00
Iron Trades Mutual	.13	3.00	2.00
Legal & General	-3.61	2.88	2.00
Minster	3.32	3.00	2.00
Municipal General	4.00	3.00	2.00
Municipal Mutual	3.22	3.08	2.00
Nat. Farmers Union Mut.	8.26	3.00	2.00
Norwich Union	22.24	-9.68	2.00
Provincial	3.97	3.00	2.00
Prudential	3.48	3.00	2.00
Refuge	4.00	3.00	2.00
Royal	1.45	2.17	2.00
Sun Alliance & London	3.24	2.18	2.00
Wesleyan & General	1.52	3.00	2.00
TOTAL	5.83	4.16	2.00
TOTAL based on 1989 data	2.46	2.00(9+)	

Risk Group : FIRE		Method: COMPANY INCURRED					
Name	Size	RUN-OFF PATTERN PER MILLE					
		0	1	2	3	4	5+
• Avon	52,906	465	360	82	31	20	41
• Britannic	4,262	574	344	54	8	18	1
• Commercial Union	881,184	463	364	104	35	19	15
• Co-operative	65,431	514	330	93	31	3	29
• Cornhill	65,646	498	363	72	21	17	29
• Eagle Star	1,268,211	519	351	68	27	16	18
• Ecclesiastical	177,641	269	524	112	44	9	42
• Economic	27,736	512	362	72	25	8	22
• General Accident	566,996	455	390	81	31	16	27
• Guardian Royal	1,011,749	524	354	71	27	6	18
• Ins. Co. of North America	47,610	348	469	156	54	44	45
• Iron Trades Mutual	37,104	471	411	97	19	13	-11
• Legal & General	112,984	420	404	122	35	25	-6
• Minster	18,396	425	385	115	45	12	19
• Municipal General	137,005	581	334	55	22	8	0
• Municipal Mutual	568,718	281	317	192	97	49	63
• Nat. Farmers Union Mutual	169,755	647	327	20	1	2	2
• Norwich Union	251,307	418	419	102	25	11	25
• Provincial	91,463	501	388	59	31	-1	22
• Prudential	196,465	500	384	70	21	6	19
• Refuge	28,355	712	218	44	11	2	12
• Royal	499,011	479	408	92	20	4	-3
• Sun Alliance & London	2,080,879	495	348	90	35	14	19
• Wesleyan & General	27,157	653	268	40	15	5	19

Risk Group : FIRE		RUN-OFF PATTERN PER MILLE				Method: COMPANY INCURRED					
Name	Size	0	1	2	3	4	5	6	7	8	9 10+
TOTAL	8,387,971	474	364	91	35	15	8	5	2	-6	-83 96
1989 TOTAL	6,339,212	465	375	90	33	14	8	4	2	3	7(9+)

Risk Group : FIRE		MEAN TERMS				Method: COMPANY INCURRED					
Name	Size	0	1	2	3	4	5	6	7	8	9 10+
TOTAL	8,387,971	1.60	1.59	3.05	5.29	8.79	13.53	19.73	28.74	35.52	19.08 2.00
1989 TOTAL	6,339,212	1.38	1.15	1.66	2.13	2.52	2.77	2.93	2.90	2.29	2.00(9+)

Risk Group : EMPLOYERS LIABILITY
Method : INFLATION ADJUSTED CHAIN LADDER
RUN-OFF PATTERN PER MILLE

Name	Size	0	1	2	3	4	5	6	7
. Avon	5,678	23	113	171	234	149	191	59	25
. Commercial Union	142,419	49	179	218	187	143	100	54	31
. Co-operative	18,482	36	142	181	172	148	110	67	44
. Cornhill	29,014	21	139	218	206	133	93	52	28
. Eagle Star	502,567	20	151	186	163	123	87	57	40
. General Accident	137,601	27	162	218	181	141	90	57	32
. Guardian Royal	241,967	41	190	198	162	135	96	56	37
. Iron Trades Mutual	42,928	19	138	174	156	137	103	83	70
. Iron Trades Employer	323,724	55	200	192	164	120	80	55	37
. Legal & General	26,966	16	113	187	175	148	96	76	44
. Norwich Union	54,606	15	103	157	163	113	86	56	40
. Orion	7,913	12	112	198	181	154	115	73	106
. Pearl	7,448	17	105	208	182	186	128	44	37
. Provincial	21,131	19	147	219	201	126	93	53	41
. Prudential	42,951	48	127	198	196	140	95	72	43
. Royal	70,943	27	141	160	142	110	77	54	32
. Sun Alliance	151,692	15	109	157	159	127	98	65	41
. Wesleyan & General	151	47	183	163	121	345	12	129	0
TOTAL	1,828,181	31	159	190	168	129	91	58	38
TOTAL of 1989	1,548,383	32	168	198	172	131	89	57	38

Risk Group : EMPLOYERS LIABILITY Method : INFLATION ADJUSTED CHAIN LADDER
 RUN-OFF PATTERN PER MILLE (contd.)

Name	8	9	10	11	12	13	14	15	16+
Avon	31	2	0	0	0	0	0	0	0
Commercial Union	16	11	6	1	1	0	0	0	1
Co-operative	22	14	9	6	8	13	1	1	26
Cornhill	37	19	20	12	0	1	5	2	12
Eagle Star	26	19	12	12	12	12	12	15	53
General Accident	21	16	13	5	4	2	4	3	25
Guardian Royal	23	13	11	5	5	5	2	-6	27
Iron Trades Mutual	93	13	6	1	1	1	1	0	5
Iron Trades Employer	28	19	13	12	12	4	3	1	5
Legal & General	15	23	10	8	-4	5	11	30	46
Norwich Union	26	10	8	2	3	4	5	6	201
Orion	29	6	1	3	1	0	0	0	10
Pearl	35	18	8	0	1	9	8	0	14
Provincial	21	19	10	7	2	17	1	0	25
Prudential	32	5	15	1	1	4	0	0	22
Royal	17	18	10	10	4	11	59	3	125
Sun Alliance	26	17	6	6	6	3	5	6	155
Wesleyan & General	0	0	0	0	0	0	0	0	0
TOTAL	25	17	11	9	8	6	8	5	45
TOTAL of 1989	25	16	11	9	6	6	7	36(15+)	

Risk Group : EMPLOYERS LIABILITY Method : INFLATION ADJUSTED CHAIN LADDER
MEAN TERMS

Name	0	1	2	3	4	5	6	7
Avon	4.01	3.10	2.44	1.92	1.64	1.19	1.30	1.11
Commercial Union	3.63	2.80	2.33	2.05	1.85	1.71	1.71	1.68
Co-operative	4.63	3.79	3.36	3.16	3.14	3.36	3.84	4.40
Cornhill	4.36	3.45	2.94	2.79	2.93	3.07	3.33	3.41
Eagle Star	5.41	4.51	4.25	4.33	4.63	5.06	5.53	5.88
General Accident	4.37	3.48	3.07	3.02	3.12	3.48	3.95	4.54
Guardian Royal	4.23	3.39	3.10	3.01	3.01	3.25	3.75	4.25
Iron Trades Mutual	4.57	3.65	3.16	2.85	2.56	2.31	1.99	1.64
Iron Trades Employer	4.05	3.26	3.00	2.87	2.87	2.92	2.95	2.95
Legal & General	5.19	4.47	3.99	3.94	4.13	4.60	5.10	5.94
Norwich Union	7.49	6.60	6.31	6.56	7.32	8.04	8.84	9.36
Orion	4.45	3.50	2.88	2.58	2.33	2.15	1.98	1.67
Pearl	4.50	3.57	2.94	2.70	2.52	2.77	3.44	3.42
Provincial	4.52	3.60	3.14	3.08	3.34	3.57	4.04	4.37
Prudential	4.34	3.54	3.00	2.80	2.84	2.97	3.16	3.71
Royal	6.77	5.95	5.87	6.15	6.66	7.26	7.78	8.13
Sun Alliance	6.85	5.94	5.62	5.74	6.22	6.90	7.77	8.53
Wesleyan & General	3.58	2.74	2.27	1.74	1.05	1.41	.50	--
TOTAL	4.95	4.09	3.79	3.81	4.04	4.46	5.01	5.51
TOTAL of 1989	4.60	3.74	3.42	3.38	3.54	3.88	4.31	4.73

Risk Group : EMPLOYERS LIABILITY Method : INFLATION ADJUSTED CHAIN LADDER
MEAN TERMS (contd.)

Name	8	9	10	11	12	13	14	15	16+
Avon	.57	.50	--	--	--	--	--	--	--
Commercial Union	1.69	1.60	1.83	2.83	3.22	4.81	5.45	4.25	4.00
Co-operative	5.10	5.37	5.47	5.28	4.88	4.75	3.70	4.00	4.00
Cornhill	3.16	3.53	3.63	4.52	5.82	4.87	3.99	4.27	4.00
Eagle Star	6.12	6.10	5.92	5.51	5.07	4.70	4.32	4.00	4.00
General Accident	4.97	5.29	5.69	6.26	5.97	5.54	4.85	4.54	4.00
Guardian Royal	4.88	5.55	5.98	6.55	6.45	6.48	6.76	6.41	4.00
Iron Trades Mutual	1.30	2.99	4.31	6.05	5.83	5.28	4.72	5.00	4.00
Iron Trades Employer	2.87	2.81	2.69	2.47	2.46	3.23	3.41	4.03	4.00
Legal & General	6.59	6.30	6.58	6.20	5.73	4.50	3.74	3.21	4.00
Norwich Union	9.69	9.69	9.11	8.44	7.50	6.61	5.74	4.86	4.00
Orion	3.18	6.05	7.35	6.80	7.27	7.00	6.00	5.00	4.00
Pearl	3.60	4.52	5.41	5.64	4.64	3.72	4.04	5.00	4.00
Provincial	4.93	5.07	5.47	5.39	5.11	4.33	5.88	5.00	4.00
Prudential	4.42	5.98	5.60	7.32	6.61	5.88	5.89	5.00	4.00
Royal	8.06	7.61	7.20	6.52	5.83	4.93	4.19	4.88	4.00
Sun Alliance	8.96	9.03	8.79	8.05	7.30	6.55	5.65	4.83	4.00
Wesleyan & General	--	--	--	--	--	--	--	--	--
TOTAL	5.93	6.19	6.23	6.00	5.65	5.29	4.80	4.52	4.00
TOTAL of 1989	5.14	5.43	5.49	5.36	5.13	4.74	4.30	4.00(15+)	

Risk Group : EMPLOYERS LIABILITY

Method: BASIC CHAIN LADDER

RUN-OFF PATTERN PER MILE

Name	Size	0	1	2	3	4	5	6	7
Avon	5,678	23	105	170	242	158	176	56	26
Commercial Union	142,419	41	168	214	187	146	108	60	35
Co-operative	18,482	34	135	179	169	147	107	68	47
Cornhill	29,014	19	126	207	201	135	96	58	31
Eagle Star	502,567	18	141	175	157	122	90	61	42
General Accident	137,601	26	156	211	178	139	92	61	34
Guardian Royal	241,967	40	180	191	161	137	100	59	39
Iron Trades Mutual	42,928	17	129	162	150	137	106	88	77
Iron Trades Employer	323,724	56	186	182	159	120	84	60	40
Legal & General	26,966	15	109	180	167	142	101	76	46
Norwich Union	54,606	14	93	143	151	105	88	62	43
Orion	7,913	12	112	199	184	162	124	65	92
Pearl	7,448	16	106	200	173	131	131	47	37
Provincial	21,131	18	135	203	203	129	96	54	48
Prudential	42,951	45	119	194	192	138	100	78	47
Royal	70,943	25	128	148	134	107	76	55	33
Sun Alliance	151,692	13	98	146	150	123	100	68	43
Wesleyan & General	151	52	175	175	136	319	17	126	0
TOTAL	1,828,181	29	148	180	163	128	94	62	41
TOTAL of 1989 data	1,548,383	31	159	189	168	131	91	60	41

Risk Group : EMPLOYERS LIABILITY
 RUN-OFF PATTERN PER MILLE (contd.)

Method: BASIC CHAIN LADDER

Name	8	9	10	11	12	13	14	15	16+
Avon	41	3	0	0	0	0	0	0	0
Commercial Union	17	12	7	2	1	0	0	0	1
Co-operative	24	17	10	6	9	16	1	2	29
Cornhill	38	23	24	15	0	1	7	3	15
Eagle Star	28	20	14	13	14	13	14	18	61
General Accident	22	18	13	5	4	2	5	4	29
Guardian Royal	24	15	12	5	5	6	3	-8	32
Iron Trades Mutual	104	13	7	1	1	1	2	0	5
Iron Trades Employer	31	22	15	15	15	5	4	2	5
Legal & General	15	28	11	8	-4	5	12	35	52
Norwich Union	27	12	9	2	4	5	6	8	231
Orion	29	7	1	3	1	0	0	0	11
Pearl	37	20	8	0	1	9	9	0	17
Provincial	21	20	11	8	2	22	1	0	30
Prudential	32	5	17	1	1	4	1	0	25
Royal	18	19	11	12	4	12	70	4	142
Sun Alliance	27	18	6	6	7	3	6	8	178
Wesleyan & General	0	0	0	0	0	0	0	0	0
TOTAL	28	19	12	10	9	7	10	7	53
TOTAL of 1989 data	27	17	12	10	7	7	8	41(15+)	

Risk Group : EMPLOYERS LIABILITY

MEAN TERMS

Method: BASIC CHAIN LADDER

Name	0	1	2	3	4	5	6	7
Avon	4.05	3.14	2.46	1.93	1.68	1.30	1.42	1.16
Commercial Union	3.76	2.90	2.41	2.12	1.90	1.74	1.72	1.69
Co-operative	4.79	3.94	3.50	3.33	3.32	3.55	3.98	4.47
Cornhill	4.60	3.68	3.15	3.00	3.12	3.26	3.47	3.56
Eagle Star	5.74	4.84	4.56	4.63	4.90	5.28	5.72	6.05
General Accident	4.53	3.64	3.24	3.19	3.30	3.65	4.13	4.75
Guardian Royal	4.40	3.56	3.26	3.16	3.16	3.41	3.93	4.45
Iron Trades Mutual	4.72	3.80	3.30	2.96	2.63	2.36	2.02	1.64
Iron Trades Employer	4.25	3.47	3.20	3.05	3.03	3.05	3.06	3.06
Legal & General	5.62	4.70	4.23	4.19	4.37	4.79	5.32	6.07
Norwich Union	8.10	7.20	6.90	7.11	7.78	8.32	9.01	9.54
Orion	4.42	3.47	2.85	2.54	2.29	2.17	2.16	1.91
Pearl	4.61	3.68	3.06	2.81	2.61	2.89	3.60	3.67
Provincial	4.75	3.83	3.36	3.26	3.53	3.78	4.23	4.47
Prudential	4.49	3.68	3.13	2.92	2.95	3.04	3.25	3.85
Royal	7.28	6.46	6.36	6.60	7.05	7.59	8.00	8.26
Sun Alliance	7.34	6.43	6.09	6.18	6.62	7.22	8.04	8.75
Wesleyan & General	3.55	2.72	2.22	1.72	1.08	1.38	.50	--
TOTAL	5.24	4.38	4.08	4.08	4.30	4.69	5.21	5.71
TOTAL of 1989 data	4.81	3.95	3.63	3.58	3.73	4.04	4.45	4.85

Risk Group : EMPLOYERS LIABILITY

MEAN TERMS (contd.)

Method: BASIC CHAIN LADDER

Name	8	9	10	11	12	13	14	15	16+
Avon	.56	.50	--	--	--	--	--	--	--
Commercial Union	1.73	1.63	1.90	2.96	3.24	4.92	5.45	4.24	4.00
Co-operative	5.13	5.34	5.46	5.21	4.73	4.57	5.66	4.77	4.00
Cornhill	3.32	3.54	3.61	4.42	5.76	4.80	3.90	4.22	4.00
Eagle Star	6.24	6.21	6.00	5.56	5.10	4.69	4.30	3.97	4.00
General Accident	5.16	5.46	5.86	6.27	5.96	5.49	4.80	4.51	4.00
Guardian Royal	5.07	5.67	6.07	6.65	6.53	6.51	6.85	6.55	4.00
Iron Trades Mutual	1.31	3.13	4.28	5.95	5.85	5.29	4.69	5.00	4.00
Iron Trades Employer	2.95	2.87	2.73	2.45	2.39	3.13	3.33	3.96	4.00
Legal & General	6.64	6.27	6.62	6.25	5.72	4.51	3.73	3.17	4.00
Norwich Union	9.81	9.73	9.14	8.43	7.49	6.60	5.72	4.85	4.00
Orion	3.44	6.19	7.53	6.98	7.36	7.00	6.00	5.00	4.00
Pearl	3.85	4.80	5.74	5.91	4.91	3.98	4.17	5.00	4.00
Provincial	5.15	5.21	5.47	5.35	5.04	4.24	5.87	5.00	4.00
Prudential	4.65	6.13	5.74	7.45	6.70	5.94	5.89	5.00	4.00
Royal	8.14	7.64	7.18	6.48	5.80	4.90	4.14	4.88	4.00
Sun Alliance	9.12	9.12	8.84	8.08	7.32	6.55	5.64	4.82	4.00
Wesleyan & General	--	--	--	--	--	--	--	--	--
TOTAL	6.08	6.29	6.29	6.02	5.65	5.27	4.76	4.50	4.00
TOTAL of 1989 data	5.23	5.47	5.49	5.33	5.10	4.70	4.26	4.00(15+)	

Risk Group : EMPLOYERS LIABILITY
 RUN-OFF PATTERN PER MILLE

Method : AVERAGE CLAIM

Name	Size	0	1	2	3	4	5	6	7
Avon	5,678	24	121	168	223	138	216	64	21
Commercial Union	142,419	43	154	204	189	153	114	63	37
Co-operative	18,482	33	128	178	168	145	119	72	42
Cornhill	29,014	22	143	221	201	129	93	56	29
Eagle Star	502,567	18	140	179	161	123	92	61	43
General Accident	137,601	27	163	221	185	145	92	57	31
Guardian Royal	241,967	41	193	204	166	136	95	54	36
Iron Trades Mutual	42,928	16	128	171	155	132	105	88	72
Iron Trades Employer	323,724	52	189	187	161	122	84	60	40
Legal & General	26,966	16	115	191	174	145	99	74	43
Norwich Union	54,606	15	104	159	168	117	85	54	42
Orion	7,913	12	107	173	148	119	92	68	230
Pearl	7,448	16	116	208	180	197	130	40	33
Provincial	21,131	16	135	215	203	131	100	55	44
Prudential	42,951	48	140	200	198	140	89	69	39
Royal	70,943	26	140	159	141	106	76	54	32
Sun Alliance	151,692	18	127	176	170	132	102	63	38
Wesleyan & General	151	29	163	171	115	404	13	104	0
TOTAL	1,828,181	29	154	189	168	131	93	60	40
TOTAL of 1989 data	1,548,383	31	163	196	173	134	91	59	39

Risk Group : EMPLOYERS LIABILITY
 RUN-OFF PATTERN PER MILLE (contd.)

Method : AVERAGE CLAIM

Name	8	9	10	11	12	13	14	15	16+
Avon	23	1	0	0	0	0	0	0	0
Commercial Union	18	14	7	1	2	0	0	0	1
Co-operative	22	13	10	8	9	15	1	1	36
Cornhill	33	21	21	13	0	0	4	2	10
Eagle Star	28	20	13	12	13	12	13	17	54
General Accident	20	14	10	4	3	1	3	2	19
Guardian Royal	22	12	9	4	4	3	2	-5	22
Iron Trades Mutual	99	17	7	1	1	1	2	0	6
Iron Trades Employer	30	21	14	14	13	4	3	1	5
Legal & General	15	27	10	8	-4	5	10	28	44
Norwich Union	26	11	9	1	3	4	5	6	191
Orion	39	2	0	1	1	0	0	0	8
Pearl	30	16	8	0	1	8	6	0	10
Provincial	23	18	9	7	2	16	1	0	26
Prudential	33	5	13	1	1	4	0	0	20
Royal	17	19	10	11	4	11	63	3	129
Sun Alliance	21	12	4	4	5	2	4	5	118
Wesleyan & General	0	0	0	0	0	0	0	0	0
TOTAL	26	17	11	8	8	6	8	6	45
TOTAL of 1989 data	25	16	11	8	6	6	7	35(15+)	

Risk Group : EMPLOYERS LIABILITY

MEAN TERMS

Method : AVERAGE CLAIM

Name	0	1	2	3	4	5	6	7
Avon	3.99	3.07	2.44	1.91	1.59	1.05	1.15	1.06
Commercial Union	3.85	3.00	2.48	2.15	1.91	1.75	1.74	1.70
Co-operative	4.90	4.05	3.59	3.42	3.42	3.64	4.28	5.02
Cornhill	4.32	3.40	2.90	2.77	2.87	2.95	3.14	3.23
Eagle Star	5.58	4.67	4.37	4.41	4.67	5.02	5.47	5.81
General Accident	4.20	3.31	2.87	2.76	2.80	3.10	3.55	4.13
Guardian Royal	4.09	3.25	2.94	2.83	2.81	3.02	3.47	3.94
Iron Trades Mutual	4.71	3.78	3.27	2.96	2.68	2.40	2.08	1.75
Iron Trades Employer	4.18	3.38	3.10	2.95	2.91	2.92	2.92	2.92
Legal & General	5.33	4.41	3.92	3.88	4.05	4.49	5.02	5.81
Norwich Union	7.31	6.42	6.12	6.35	7.13	7.91	8.69	9.19
Orion	4.86	3.91	3.33	3.02	2.68	2.27	1.73	1.03
Pearl	4.35	3.41	2.80	2.53	2.29	2.53	3.26	3.25
Provincial	4.60	3.66	3.16	3.07	3.27	3.48	3.96	4.28
Prudential	4.23	3.42	2.92	2.71	2.77	2.92	3.08	3.62
Royal	6.88	6.06	5.99	6.28	6.81	7.37	7.84	8.17
Sun Alliance	6.04	5.14	4.83	4.95	5.43	6.16	7.26	8.26
Wesleyan & General	3.66	2.75	2.21	1.67	.93	1.39	.50	--
TOTAL	4.98	4.12	3.80	3.79	4.00	4.38	4.92	5.43
TOTAL of 1989	4.62	3.75	3.41	3.35	3.48	3.80	4.23	4.67

Risk Group : EMPLOYERS LIABILITY MEAN TERMS (contd.) Method : AVERAGE CLAIM

Name	8	9	10	11	12	13	14	15	16+
Avon	.56	.50	--	--	--	--	--	--	--
Commercial Union	1.72	1.60	1.93	3.03	3.14	5.00	5.45	4.25	4.00
Co-operative	5.69	5.89	5.75	5.49	5.12	4.95	5.73	4.82	4.00
Cornhill	2.99	3.12	3.22	4.08	5.82	4.87	3.99	4.25	4.00
Eagle Star	6.06	6.08	5.92	5.49	5.02	4.65	4.26	3.95	4.00
General Accident	4.59	5.04	5.56	6.19	5.90	5.49	4.79	4.48	4.00
Guardian Royal	4.62	5.40	5.95	6.63	6.62	6.65	6.80	6.43	4.00
Iron Trades Mutual	1.43	3.05	4.60	6.12	5.68	5.15	4.66	5.00	4.00
Iron Trades Employer	2.82	2.75	2.63	2.39	2.35	3.21	3.35	3.96	4.00
Legal & General	6.40	6.08	6.56	6.20	5.77	4.52	3.77	3.25	4.00
Norwich Union	9.60	9.64	9.10	8.44	7.50	6.61	5.74	4.86	4.00
Orion	2.39	7.50	8.30	7.64	7.47	7.00	6.00	5.00	4.00
Pearl	3.40	4.21	5.00	5.36	4.36	3.45	3.87	5.00	4.00
Provincial	4.92	5.19	5.58	5.48	5.20	4.46	5.89	5.00	4.00
Prudential	4.22	6.04	5.70	7.27	6.59	5.88	5.90	5.00	4.00
Royal	8.08	7.60	7.19	6.50	5.80	4.90	4.15	4.88	4.00
Sun Alliance	8.94	9.07	8.81	8.06	7.29	6.55	5.65	4.82	4.00
Wesleyan & General	--	--	--	--	--	--	--	--	--
TOTAL	5.88	6.17	6.23	6.01	5.65	5.28	4.78	4.50	4.00
TOTAL of 1989	5.11	5.41	5.49	5.34	5.11	4.71	4.27	4.00(15+)	

Risk Group : EMPLOYERS LIABILITY
 RUN-OFF PATTERN PER MILLE

Method : COMPANY INCURRED

Name	Size	0	1	2	3	4	5	6	7
Avon	5,678	26	130	184	189	122	151	80	44
Commercial Union	142,419	43	158	196	179	149	114	66	41
Co-operative	18,482	30	122	162	160	144	122	88	55
Cornhill	29,014	20	127	192	183	119	93	55	29
Eagle Star	502,567	19	143	180	160	124	92	62	44
General Accident	137,601	24	144	194	170	142	92	64	39
Guardian Royal	241,967	40	185	198	162	132	97	59	40
Iron Trades Mutual	42,928	15	112	148	133	111	87	72	48
Iron Trades Employer	323,724	57	187	182	155	119	85	61	40
Legal & General	26,966	15	109	183	169	149	102	81	53
Norwich Union	54,606	16	105	162	166	117	86	57	41
Orion	7,913	13	119	191	172	134	101	101	113
Pearl	7,448	14	88	190	177	183	118	47	42
Provincial	21,131	16	129	198	181	125	105	62	54
Prudential	42,951	45	125	179	183	140	91	79	48
Royal	70,943	24	129	150	142	114	83	59	36
Sun Alliance	151,692	15	106	154	156	128	99	68	43
Wesleyan & General	151	69	217	191	106	298	25	94	0
TOTAL	1,828,181	28	147	180	162	128	93	63	43
TOTAL of 1989 data	1,548,383	29	153	184	164	130	93	63	43

Risk Group : EMPLOYERS LIABILITY
 RUN-OFF PATTERN PER MILLE (contd.)

Method : COMPANY INCURRED

Name	8	9	10	11	12	13	14	15	16+
Avon	34	17	0	4	4	4	4	4	4
Commercial Union	21	16	9	2	2	1	0	0	2
Co-operative	28	21	14	9	8	10	2	3	21
Cornhill	46	22	21	8	1	2	15	18	48
Eagle Star	29	21	13	12	13	11	10	11	55
General Accident	28	22	20	6	5	3	7	4	37
Guardian Royal	26	15	12	5	5	4	3	-15	33
Iron Trades Mutual	70	22	11	11	10	16	80	0	53
Iron Trades Employer	31	22	14	13	11	7	6	3	7
Legal & General	19	32	12	9	-4	4	7	15	45
Norwich Union	27	10	9	1	3	4	4	6	185
Orion	34	5	1	2	1	0	4	4	4
Pearl	55	33	13	0	1	13	7	0	19
Provincial	33	25	11	9	3	18	1	0	30
Prudential	41	6	22	2	2	7	0	0	29
Royal	19	22	11	11	4	11	49	4	132
Sun Alliance	26	16	6	6	7	3	5	5	159
Wesleyan & General	0	0	0	0	0	0	0	0	0
TOTAL	29	20	13	10	9	7	9	6	54
TOTAL of 1989 data	29	19	13	10	8	7	8	47(15+)	

Risk Group : EMPLOYERS LIABILITY

MEAN TERMS

Name	0	1	2	3	4	5	6	7
Avon	4.34	3.44	2.90	2.57	2.40	2.07	2.27	2.46
Commercial Union	3.94	3.10	2.61	2.30	2.06	1.90	1.90	1.87
Co-operative	4.89	4.03	3.53	3.25	3.09	3.07	3.28	3.71
Cornhill	5.37	4.46	4.06	4.09	4.46	4.78	5.27	5.53
Eagle Star	5.49	4.59	4.29	4.33	4.56	4.90	5.33	5.68
General Accident	4.89	4.00	3.60	3.55	3.65	4.02	4.40	4.85
Guardian Royal	4.31	3.46	3.17	3.08	3.09	3.29	3.74	4.22
Iron Trades Mutual	6.44	5.53	5.17	5.12	5.16	5.23	5.28	5.35
Iron Trades Employer	4.28	3.51	3.25	3.12	3.09	3.11	3.15	3.21
Legal & General	5.31	4.38	3.87	3.76	3.81	4.13	4.48	5.14
Norwich Union	7.22	6.33	6.03	6.27	7.00	7.76	8.54	9.12
Orion	4.51	3.57	2.99	2.69	2.44	2.14	1.76	1.51
Pearl	4.91	3.98	3.32	3.07	2.93	3.21	3.60	3.39
Provincial	4.91	3.98	3.50	3.40	3.51	3.58	3.90	4.05
Prudential	4.67	3.86	3.37	3.16	3.20	3.35	3.46	3.95
Royal	6.92	6.08	5.93	6.10	6.54	7.09	7.63	8.03
Sun Alliance	6.93	6.03	5.69	5.80	6.24	6.90	7.74	8.52
Wesleyan & General	3.30	2.50	2.11	1.70	1.01	1.29	.50	--
TOTAL	5.26	4.40	4.10	4.10	4.30	4.67	5.15	5.62
TOTAL of 1989	5.00	4.13	3.81	3.77	3.91	4.21	4.59	4.98

Risk Group : EMPLOYERS LIABILITY

Method : COMPANY INCURRED

MEAN TERMS (contd.)

Name	8	9	10	11	12	13	14	15	16+
Avon	2.62	3.46	4.58	3.58	3.20	2.88	2.67	2.75	4.00
Commercial Union	1.93	1.90	2.32	3.69	3.89	5.29	5.80	4.63	4.00
Co-operative	4.21	4.40	4.61	4.72	4.53	4.46	4.98	4.36	4.00
Cornhill	5.32	5.94	5.98	6.23	5.79	4.86	3.99	3.77	4.00
Eagle Star	5.98	6.07	6.00	5.65	5.27	4.97	4.62	4.25	4.00
General Accident	5.14	5.41	5.71	6.40	6.04	5.57	4.87	4.60	4.00
Guardian Royal	4.89	5.75	6.46	7.41	7.63	8.17	8.55	8.73	4.00
Iron Trades Mutual	5.20	5.81	5.46	4.80	4.11	3.35	2.70	5.00	4.00
Iron Trades Employer	3.18	3.17	3.15	2.97	2.90	3.07	3.13	3.71	4.00
Legal & General	5.88	5.75	6.68	6.62	6.45	5.12	4.40	3.88	4.00
Norwich Union	9.54	9.64	9.09	8.45	7.51	6.62	5.75	4.86	4.00
Orion	2.62	5.04	5.46	4.75	4.49	3.67	2.67	2.75	4.00
Pearl	3.25	4.00	5.14	5.70	4.70	3.83	4.50	5.00	4.00
Provincial	4.53	4.91	5.44	5.34	5.21	4.51	5.89	5.00	4.00
Prudential	4.46	5.84	5.39	7.00	6.40	5.74	5.92	5.00	4.00
Royal	8.06	7.64	7.34	6.71	6.06	5.18	4.44	4.88	4.00
Sun Alliance	8.99	9.07	8.80	8.07	7.33	6.59	5.69	4.85	4.00
Wesleyan & General	--	--	--	--	--	--	--	--	--
TOTAL	6.02	6.27	6.32	6.11	5.77	5.40	4.90	4.57	4.00
TOTAL of 1989	5.34	5.59	5.62	5.46	5.19	4.80	4.35	4.00(15+)	

Risk Group : MOTOR - COMPREHENSIVE			Method : INFLATION ADJUSTED CHAIN LADDER						
Future Inflation 8.00%			RUN-OFF PATTERN PER MILE						
Name	Size	0	1	2	3	4	5	6	7
Avon	72,818	605	229	35	29	23	22	9	6
Britannic	20,070	583	213	38	35	24	12	21	6
Commercial Union	446,256	645	227	37	28	25	17	12	3
Co-operative	522,846	612	221	36	34	28	23	20	6
Cornhill	372,928	615	229	41	33	23	24	12	5
Eagle Star *	652,108	624	241	39	32	22	17	9	6
General Accident	1,025,473	620	238	36	30	23	19	18	6
Guardian Royal	860,699	622	246	42	34	23	17	8	2
Iron Trades Mut. *	245,927	640	223	33	30	21	17	7	12
Legal & General	120,097	590	249	35	31	23	30	12	10
London & Edinburgh	182,991	567	240	42	43	20	18	37	9
Nat. Farmers Union	210,749	604	223	38	40	31	24	17	6
Nat. Ins. & G'tee	294,924	608	252	37	30	29	20	10	4
Norman *	46,236	628	228	43	41	26	15	7	3
Norwich Union *	826,206	580	281	39	34	25	14	10	7
Pearl	76,223	558	246	52	41	48	30	10	2
Provincial	271,428	618	234	37	32	25	19	16	4
Prudential	405,457	627	234	37	29	23	18	13	4
Royal *	700,149	618	235	40	33	27	16	14	9
Sun Alliance	987,655	628	242	39	33	21	16	13	3
Wesleyan & General	12,901	403	143	25	29	30	44	63	13
TOTAL	8,354,141	620	242	39	32	24	19	14	4
TOTAL of 1989 data	6,785,929	623	240	38	32	24	16	10	6

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE
Future Inflation 8.00% RUN-OFF PATTERN PER MILLE (contd.)

Method : INFLATION ADJUSTED CHAIN LADDER

Name	8	9	10	11	12	13	14+
Avon	5	37	0	0	0	0	0
Britannic	5	54	7	3	0	0	0
Commercial Union	1	4	0	0	0	0	0
Co-operative	5	6	2	1	3	2	3
Cornhill	3	7	5	0	0	0	2
Eagle Star *	4	2	3	0	0	0	0
General Accident	4	3	1	1	0	0	1
Guardian Royal	2	2	0	0	0	0	0
Iron Trades Mut. *	5	1	4	5	2	0	0
Legal & General	3	12	3	0	0	0	1
London & Edinburgh	3	18	3	0	0	0	0
Nat. Farmers Union	4	12	0	0	0	0	0
Nat. Ins. & G'tee	2	8	0	0	0	0	0
Norman *	7	2	0	0	0	0	0
Norwich Union *	4	2	4	0	0	0	0
Pearl	0	12	0	0	0	0	0
Provincial	4	8	2	0	0	0	0
Prudential	3	5	3	1	0	0	2
Royal *	6	1	0	1	1	0	0
Sun Alliance	2	2	0	0	0	0	0
Wesleyan & General	0	233	0	14	0	0	0
TOTAL	3	1	1	1	0	0	1
TOTAL of 1989 data	4	2	2	1	1	1(13+)	

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE		Method : INFLATION ADJUSTED CHAIN LADDER						
Future Inflation 8.00%		MEAN TERMS						
Name	0	1	2	3	4	5	6	7
Avon	1.56	2.18	3.50	3.31	3.10	2.85	2.74	2.15
Britannic	1.83	2.70	4.01	3.80	3.70	3.44	2.79	2.45
Commercial Union	1.22	1.52	2.33	2.07	1.76	1.61	1.55	1.97
Co-operative	1.50	2.08	3.18	2.90	2.73	2.61	2.67	3.27
Cornhill	1.40	1.84	2.81	2.64	2.51	2.32	2.63	2.72
Eagle Star *	1.27	1.55	2.42	2.22	2.07	1.90	1.88	1.74
General Accident	1.34	1.70	2.72	2.47	2.24	1.99	1.80	2.20
Guardian Royal	1.22	1.40	2.08	1.83	1.64	1.46	1.54	1.83
Iron Trades Mut. *	1.34	1.84	3.02	2.82	2.74	2.64	2.64	2.15
Legal & General	1.47	1.87	3.01	2.71	2.45	2.09	2.23	1.95
London & Edinburgh	1.63	2.10	3.09	2.81	2.74	2.26	1.70	2.03
Nat.Farmers Union	1.46	1.92	2.74	2.37	2.16	1.97	1.87	1.86
Nat.Ins.& G'tee	1.31	1.56	2.47	2.17	1.86	1.75	1.82	1.82
Norman *	1.25	1.52	2.14	1.84	1.75	1.69	1.65	1.38
Norwich Union *	1.33	1.48	2.47	2.23	2.12	2.08	1.92	1.70
Pearl	1.50	1.77	2.37	2.05	1.66	1.69	2.19	2.29
Provincial	1.36	1.74	2.71	2.45	2.23	2.01	1.84	1.99
Prudential	1.33	1.74	2.83	2.68	2.55	2.50	2.60	3.08
Royal *	1.33	1.68	2.54	2.30	2.09	1.96	1.67	1.56
Sun Alliance	1.23	1.45	2.23	1.98	1.81	1.57	1.39	1.86
Wesleyan & General	3.86	5.13	5.59	4.89	4.22	3.52	2.92	2.51
TOTAL	1.29	1.57	2.44	2.18	1.97	1.78	1.74	2.23
TOTAL of 1989 DATA	1.30	1.61	2.54	2.33	2.22	2.18	2.18	2.25

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE Method : INFLATION ADJUSTED CHAIN LADDER
Future Inflation 8.00% MEAN TERMS (contd.)

Name	8	9	10	11	12	13	14+
Avon	1.39	.51	.50	--	--	--	--
Britannic	1.61	.69	.78	.50	--	--	--
Commercial Union	1.61	.88	2.48	2.39	2.26	3.00	2.00
Co-operative	3.08	2.95	3.31	2.88	2.11	2.16	2.00
Cornhill	2.35	1.75	2.06	4.13	3.83	2.96	2.00
Eagle Star *	1.61	1.38	.90	1.87	1.67	1.52	2.00
General Accident	2.07	1.91	2.20	2.04	2.80	2.97	2.00
Guardian Royal	1.47	1.03	1.85	2.23	3.13	2.31	2.00
Iron Trades Mut. *	2.32	2.13	1.33	.84	.62	3.00	2.00
Legal & General	1.77	.99	1.40	4.51	5.06	4.18	2.00
London & Edinburgh	1.57	.71	.88	1.30	1.50	.50	--
Nat.Farmers Union	1.40	.68	2.21	1.73	4.00	3.00	2.00
Nat.Ins.& G'tee	1.36	.55	.72	.23	.50	--	--
Norman *	.71	.50	--	--	--	--	--
Norwich Union *	1.48	1.21	.50	.50	--	--	--
Pearl	1.55	.57	.84	.50	--	--	--
Provincial	1.41	.79	.81	1.47	1.92	3.00	2.00
Prudential	2.85	2.35	2.64	3.26	3.63	2.72	2.00
Royal *	1.62	2.63	2.55	1.79	1.29	1.60	2.00
Sun Alliance	1.74	1.51	2.35	3.08	2.76	1.72	2.00
Wesleyan & General	1.62	.62	1.47	.50	--	--	--
TOTAL	2.33	2.47	2.42	2.69	2.66	2.47	2.00
TOTAL of 1989 DATA	2.28	2.37	2.23	2.27	2.11	2.00(13+)	

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE			Method : BASIC CHAIN LADDER						
Name	Size	RUN-OFF PATTERN PER MILE							
		0	1	2	3	4	5	6	7
Avon	72,818	593	227	35	28	23	21	9	7
Britannic	20,070	567	207	37	35	23	13	20	7
Commercial Union	446,256	641	228	37	28	25	17	12	3
Co-operative	522,846	608	221	35	33	28	24	20	7
Cornhill	372,928	611	228	41	33	23	24	11	6
Eagle Star *	652,108	618	243	39	32	23	19	10	7
General Accident	1,025,473	616	240	36	30	23	19	18	6
Guardian Royal	860,699	617	249	42	34	24	17	9	3
Iron Trades Mut. *	245,927	645	214	32	29	21	17	7	14
Legal & General	120,097	589	248	34	32	23	27	12	12
London & Edinburgh	182,991	563	239	42	43	21	17	34	9
Nat. Farmers Union	210,749	600	222	38	40	31	24	17	7
Nat. Ins. & G'tee	294,924	603	253	36	30	30	20	11	5
Norman *	46,236	628	226	44	41	26	14	8	4
Norwich Union *	826,206	574	282	39	34	25	15	10	8
Pearl	76,223	553	249	51	40	50	28	10	2
Provincial	271,428	615	234	37	31	25	21	15	5
Prudential	405,457	623	233	37	29	23	18	14	5
Royal *	700,149	610	235	40	32	27	17	15	12
Sun Alliance	987,655	626	241	39	32	21	16	14	4
Wesleyan & General	12,901	360	129	24	28	26	38	60	14
TOTAL	8,354,141	616	243	39	32	24	19	14	5
TOTAL of 1989 data	6,785,929	621	240	38	32	24	17	11	7

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE		RUN-OFF PATTERN PER MILLE (contd.)					Method : BASIC CHAIN LADDER			
Name		8	9	10	11	12	13	14+		
Avon	6	50	1	0	0	0	0	0		
Britannic	6	72	9	4	0	0	0	0		
Commercial Union	1	6	0	0	0	0	0	0		
Co-operative	6	7	2	1	3	2	2	4		
Cornhill	3	10	6	0	0	0	0	3		
Eagle Star *	4	2	4	0	0	0	0	0		
General Accident	4	4	1	1	0	0	0	1		
Guardian Royal	2	3	0	0	0	0	0	0		
Iron Trades Mut. *	6	2	5	6	3	0	0	0		
Legal & General	3	15	4	0	0	0	0	1		
London & Edinburgh	3	23	3	1	0	0	0	0		
Nat. Farmers Union	4	15	0	1	0	0	0	0		
Nat. Ins. & G'tee	2	10	0	0	0	0	0	0		
Norman *	7	2	0	0	0	0	0	0		
Norwich Union *	5	2	6	0	0	0	0	0		
Pearl	0	16	1	0	0	0	0	0		
Provincial	5	11	2	0	0	0	0	0		
Prudential	3	7	4	2	0	0	0	3		
Royal *	7	1	0	1	1	0	0	0		
Sun Alliance	2	3	1	0	0	0	0	0		
Wesleyan & General	0	297	1	22	0	0	0	0		
TOTAL	3	2	1	1	1	0	0	1		
TOTAL of 1989 data	4	2	2	1	1	1	1	1(13+)		

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Name	MEAN TERMS							Method : BASIC CHAIN LADDER						
	0	1	2	3	4	5	6	7						
Avon	1.69	2.41	3.83	3.64	3.38	3.09	2.87	2.19						
Britannic	2.03	3.04	4.38	4.15	3.98	3.61	2.95	2.46						
Commercial Union	1.24	1.55	2.40	2.16	1.89	1.76	1.73	2.04						
Co-operative	1.55	2.17	3.33	3.07	2.89	2.78	2.83	3.30						
Cornhill	1.45	1.95	3.00	2.86	2.75	2.56	2.84	2.81						
Eagle Star *	1.30	1.60	2.51	2.30	2.12	1.92	1.96	1.83						
General Accident	1.36	1.74	2.79	2.55	2.31	2.07	1.89	2.19						
Guardian Royal	1.24	1.43	2.16	1.91	1.73	1.59	1.70	1.92						
Iron Trades Mut. *	1.38	1.99	3.24	3.03	2.95	2.84	2.81	2.29						
Legal & General	1.51	1.96	3.17	2.89	2.66	2.33	2.37	2.01						
London & Edinburgh	1.67	2.19	3.22	2.96	2.89	2.44	1.89	2.09						
Nat.Farmers Union	1.50	1.99	2.85	2.50	2.30	2.13	2.01	1.94						
Nat.Ins.& G'tee	1.35	1.63	2.61	2.31	2.01	1.94	1.97	1.89						
Norman *	1.26	1.54	2.17	1.89	1.81	1.80	1.65	1.38						
Norwich Union *	1.37	1.54	2.59	2.37	2.26	2.20	2.04	1.81						
Pearl	1.54	1.83	2.49	2.17	1.80	1.95	2.35	2.32						
Provincial	1.39	1.82	2.85	2.60	2.37	2.15	2.03	2.05						
Prudential	1.39	1.87	3.07	2.96	2.85	2.79	2.84	3.21						
Royal *	1.38	1.76	2.69	2.45	2.22	2.06	1.75	1.59						
Sun Alliance	1.25	1.50	2.31	2.08	1.91	1.67	1.49	1.88						
Wesleyan & General	4.45	5.66	5.97	5.24	4.52	3.77	3.08	2.55						
TOTAL	1.31	1.60	2.51	2.26	2.05	1.87	1.84	2.25						
TOTAL of 1989 DATA	1.31	1.65	2.63	2.42	2.31	2.25	2.25	2.32						

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Name	MEAN TERMS (contd.)							Method : BASIC CHAIN LADDER			
	8	9	10	11	12	13	14+				
Avon	1.40	.51	.50	--	--	--	--				
Britannic	1.61	.69	.79	.50	--	--	--				
Commercial Union	1.62	.85	2.44	2.29	2.28	3.00	2.00				
Co-operative	3.07	2.86	3.31	2.88	2.12	2.14	2.00				
Cornhill	2.43	1.76	2.16	4.18	3.85	2.95	2.00				
Eagle Star *	1.73	1.45	.88	1.83	1.64	1.49	2.00				
General Accident	2.06	1.85	2.22	2.04	2.76	2.96	2.00				
Guardian Royal	1.56	1.06	1.97	2.34	3.28	2.42	2.00				
Iron Trades Mut. *	2.45	2.18	1.37	.87	.63	3.00	2.00				
Legal & General	1.78	.97	1.46	4.49	4.99	4.11	2.00				
London & Edinburgh	1.58	.71	.88	1.28	1.50	.50	--				
Nat.Farmers Union	1.44	.67	2.18	1.64	4.00	3.00	2.00				
Nat.Ins.& G'tee	1.38	.55	.69	.22	.50	--	--				
Norman *	.72	.50	--	--	--	--	--				
Norwich Union *	1.56	1.22	.50	.50	--	--	--				
Pearl	1.55	.57	.83	.50	--	--	--				
Provincial	1.44	.77	.86	1.60	2.04	3.00	2.00				
Prudential	2.95	2.43	2.76	3.47	3.64	2.72	2.00				
Royal *	1.70	2.77	2.69	1.92	1.42	1.75	2.00				
Sun Alliance	1.74	1.44	2.42	3.15	2.77	1.73	2.00				
Wesleyan & General	1.64	.64	1.47	.50	--	--	--				
TOTAL of 1989 DATA	2.37	2.50	2.47	2.75	2.71	2.47	2.00				
	2.36	2.44	2.30	2.31	2.12	2.00(13+)					

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE		PATTERN PER MILE				Method : AVERAGE CLAIM			
Future Inflation 8.00% RUN-OFF		Size							
Name		0	1	2	3	4	5	6	7
Avon	72,818	569	215	33	31	23	25	10	12
Britannic	20,070	548	200	35	33	23	11	21	10
Commercial Union	446,256	636	225	37	28	26	18	13	5
Co-operative	522,846	604	213	35	33	27	23	20	10
Cornhill	372,928	602	225	40	34	23	25	12	9
Eagle Star *	652,108	619	237	41	33	24	18	11	7
General Accident	1,025,473	609	235	35	30	23	19	19	10
Guardian Royal	860,699	619	244	41	33	23	17	8	4
Iron Trades Mut. *	245,927	631	225	38	32	23	18	8	9
Legal & General	120,097	567	242	36	32	24	36	13	19
London & Edinburgh	182,991	560	237	40	43	19	17	37	12
Nat.Farmers Union	210,749	581	217	38	42	32	26	19	13
Nat.Ins.& G'tee	294,924	601	247	37	30	27	20	10	8
Norman *	46,236	620	231	41	45	25	19	8	3
Norwich Union *	826,206	578	277	40	37	27	14	10	7
Pearl	76,223	549	237	52	41	46	32	9	4
Provincial	271,428	604	230	38	34	25	18	18	7
Prudential	405,457	611	231	38	30	25	18	13	8
Royal *	700,149	612	232	42	35	28	17	15	9
Sun Alliance	987,655	619	241	40	34	22	16	13	6
Wesleyan & General	12,901	376	132	23	26	28	40	58	16
TOTAL	8,354,141	612	238	38	32	24	19	14	8
TOTAL of 1989 DATA	6,785,929	619	240	39	33	25	17	11	6

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Future Inflation 8.00%

Method : AVERAGE CLAIM

Name	8	9	10	11	12	13	14+
Avon	10	72	1	0	0	0	0
Britannic	8	96	12	4	0	0	0
Commercial Union	2	9	0	0	0	0	0
Co-operative	9	9	3	1	5	3	5
Cornhill	5	13	8	1	0	0	3
Eagle Star *	4	3	3	0	0	0	0
General Accident	7	6	2	2	1	0	1
Guardian Royal	3	5	1	0	0	0	0
Iron Trades Mut. *	5	1	4	4	2	0	0
Legal & General	5	21	6	0	0	0	1
London & Edinburgh	4	26	4	1	0	0	0
Nat.Farmers Union	8	23	0	1	0	0	0
Nat.Ins.& G'tee	3	15	0	0	0	0	0
Norman *	6	2	0	0	0	0	0
Norwich Union *	4	1	3	0	0	0	0
Pearl	1	27	1	1	0	0	0
Provincial	8	14	3	0	0	0	0
Prudential	5	9	6	3	0	1	4
Royal *	6	1	0	1	1	0	0
Sun Alliance	3	4	1	0	0	0	0
Wesleyan & General	0	282	1	17	0	0	0
TOTAL	5	3	2	1	1	0	1
TOTAL of 1989 DATA	4	2	2	1	1	1(13+)	

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Future Inflation 8.00%

Name	MEAN TERMS							Method : AVERAGE CLAIM						
	0	1	2	3	4	5	6	7	6	5	4	3	2	1
Avon	1.96	2.90	4.28	3.97	3.69	3.24	2.89	2.15						
Britannic	2.30	3.48	4.85	4.54	4.27	3.81	3.04	2.45						
Commercial Union	1.30	1.70	2.65	2.42	2.15	2.04	1.95	1.97						
Co-operative	1.66	2.43	3.69	3.45	3.32	3.18	3.12	3.27						
Cornhill	1.55	2.14	3.29	3.14	3.04	2.83	2.97	2.72						
Eagle Star *	1.31	1.62	2.47	2.25	2.07	1.90	1.83	1.75						
General Accident	1.45	1.94	3.10	2.86	2.64	2.37	2.13	2.20						
Guardian Royal	1.27	1.52	2.33	2.13	1.99	1.87	1.94	1.83						
Iron Trades Mut. *	1.35	1.81	2.84	2.67	2.61	2.57	2.67	2.33						
Legal & General	1.70	2.26	3.49	3.17	2.86	2.41	2.48	1.95						
London & Edinburgh	1.72	2.28	3.37	3.09	3.02	2.49	1.91	2.03						
Nat.Farmers Union	1.67	2.29	3.21	2.83	2.63	2.40	2.18	1.86						
Nat.Ins.& G'tee	1.41	1.77	2.84	2.60	2.35	2.23	2.20	1.82						
Norman *	1.28	1.54	2.16	1.80	1.73	1.55	1.59	1.40						
Norwich Union *	1.34	1.48	2.37	2.09	1.96	1.96	1.77	1.56						
Pearl	1.66	2.07	2.81	2.56	2.25	2.33	2.68	2.29						
Provincial	1.49	2.00	3.07	2.84	2.67	2.46	2.13	1.99						
Prudential	1.50	2.08	3.37	3.26	3.16	3.14	3.15	3.08						
Royal *	1.36	1.71	2.51	2.25	2.05	1.93	1.66	1.61						
Sun Alliance	1.30	1.59	2.45	2.23	2.10	1.91	1.74	1.86						
Wesleyan & General	4.27	5.54	5.90	5.16	4.44	3.70	3.04	2.51						
TOTAL	1.38	1.76	2.76	2.54	2.37	2.21	2.13	2.23						
TOTAL of 1989 DATA	1.31	1.63	2.55	2.33	2.22	2.18	2.18	2.25						

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE
Future Inflation 8.00%

Name	MEAN TERMS (contd.)							Method : AVERAGE CLAIM			
	8	9	10	11	12	13	14+				
Avon	1.39	.51	.50	--	--	--	--				
Britannic	1.61	.69	.78	.50	--	--	--				
Commercial Union	1.61	.88	2.48	2.39	2.26	3.00	2.00				
Co-operative	3.08	2.95	3.31	2.88	2.11	2.16	2.00				
Cornhill	2.35	1.75	2.06	4.13	3.83	2.96	2.00				
Eagle Star *	1.57	1.30	.94	1.97	1.68	1.44	2.00				
General Accident	2.07	1.91	2.20	2.04	2.80	2.97	2.00				
Guardian Royal	1.47	1.03	1.85	2.23	3.13	2.31	2.00				
Iron Trades Mut. *	2.34	2.14	1.30	.84	.65	3.00	2.00				
Legal & General	1.77	.99	1.40	4.51	5.06	4.18	2.00				
London & Edinburgh	1.57	.71	.88	1.30	1.50	.50	--				
Nat.Farmers Union	1.40	.68	2.21	1.73	4.00	3.00	2.00				
Nat.Ins.& G'tee	1.36	.55	.72	.23	.50	--	--				
Norman *	.72	.50	--	--	--	--	--				
Norwich Union *	1.41	1.21	.50	.50	--	--	--				
Pearl	1.55	.57	.84	.50	--	--	--				
Provincial	1.41	.79	.81	1.47	1.92	3.00	2.00				
Prudential	2.85	2.35	2.64	3.26	3.63	2.72	2.00				
Royal *	1.68	2.66	2.56	1.80	1.26	1.54	2.00				
Sun Alliance	1.74	1.51	2.35	3.08	2.76	1.72	2.00				
Wesleyan & General	1.62	.62	1.47	.50	--	--	--				
TOTAL	2.33	2.47	2.42	2.69	2.66	2.47	2.00				
TOTAL of 1989 DATA	2.28	2.37	2.23	2.27	2.11	2.00(13+)					

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE		Method : COMPANY INCURRED						
Name	Size	RUN-OFF PATTERN PER MILE					3	4
		0	1	2	5	6		
Avon	72,818	619	227	33	30	22	27	7
Britannic	20,070	625	226	38	33	21	10	5
Commercial Union	446,256	629	226	39	31	28	20	8
Co-operative	522,846	580	210	35	34	28	25	5
Cornhill	372,928	606	228	41	35	22	25	14
Eagle Star *	652,108	615	238	40	33	24	19	7
General Accident	1,025,473	614	237	35	29	22	16	6
Guardian Royal	860,699	608	246	42	34	25	19	9
Iron Trades Mut. *	245,927	622	221	38	33	25	20	5
Legal & General	120,097	574	242	35	31	23	31	11
London & Edinburgh	182,991	580	250	44	46	21	18	26
Nat.Farmers Union	210,749	596	217	36	37	29	25	8
Nat.Ins.& G'tee	294,924	601	250	38	30	26	21	14
Norman *	46,236	598	229	43	48	30	25	10
Norwich Union *	826,206	566	272	40	37	30	17	4
Pearl	76,223	548	248	52	42	43	29	13
Provincial	271,428	612	233	39	35	25	17	8
Prudential	405,457	617	229	38	28	23	18	6
Royal *	700,149	609	231	41	35	28	17	11
Sun Alliance	987,655	607	235	39	32	22	17	9
Wesleyan & General	12,901	602	208	32	34	28	41	10
TOTAL	8,354,141	603	236	39	33	25	20	4
TOTAL of 1989 DATA	6,785,929	605	237	39	33	27	20	11

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Name	RUN-OFF PATTERN PER MILLE (contd.)					Method : COMPANY INCURRED			
	8	9	10	11	12	13	14	14+	
Avon	5	15	13	0	0	0	0	0	
Britannic	7	10	7	3	0	0	0	0	
Commercial Union	2	5	1	1	2	0	0	1	
Co-operative	12	12	4	2	8	4	7	7	
Cornhill	5	9	8	1	0	0	4	4	
Eagle Star *	5	3	3	0	1	1	0	0	
General Accident	5	6	3	3	1	0	1	1	
Guardian Royal	3	4	1	1	0	0	2	2	
Iron Trades Mut. *	6	1	5	7	2	0	0	0	
Legal & General	3	11	10	1	0	-1	2	2	
London & Edinburgh	2	6	4	1	0	0	0	0	
Nat.Farmers Union	6	13	2	3	0	0	6	6	
Nat.Ins.& G'tee	3	7	2	3	1	0	0	0	
Norman *	9	2	0	0	0	0	0	0	
Norwich Union *	6	2	4	2	0	0	0	0	
Pearl	0	11	8	5	0	0	1	1	
Provincial	7	6	5	1	0	0	3	3	
Prudential	5	8	6	3	0	0	3	3	
Royal *	8	2	0	1	1	1	1	1	
Sun Alliance	6	7	4	1	0	1	1	1	
Wesleyan & General	0	7	0	7	0	0	0	0	
TOTAL	7	4	3	2	1	0	2	2	
TOTAL of 1989 DATA	6	3	3	1	1	2(13+)			

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE		MEAN TERMS							Method : COMPANY INCURRED						
Name		0	1	2	3	4	5	6	7						
Avon		1.48	2.06	3.33	3.09	2.92	2.65	2.96	2.43						
Britannic		1.41	1.94	3.12	3.02	3.09	3.07	2.61	2.22						
Commercial Union		1.32	1.72	2.62	2.40	2.19	2.22	2.50	2.68						
Co-operative		1.88	2.80	4.11	3.85	3.68	3.49	3.37	3.37						
Cornhill		1.50	2.05	3.17	3.04	3.00	2.82	3.16	2.94						
Eagle Star *		1.34	1.69	2.60	2.39	2.23	2.08	2.07	2.06						
General Accident		1.42	1.89	3.10	2.90	2.71	2.50	2.36	2.38						
Guardian Royal		1.34	1.63	2.52	2.34	2.25	2.22	2.51	2.68						
Iron Trades Mut. *		1.44	1.98	3.05	2.86	2.77	2.69	2.74	2.42						
Legal & General		1.67	2.23	3.50	3.20	2.90	2.49	2.43	1.88						
London & Edinburgh		1.46	1.77	2.63	2.36	2.41	2.08	1.74	2.03						
Nat.Farmers Union		1.64	2.33	3.45	3.14	3.00	2.85	2.83	2.78						
Nat.Ins.& G'tee		1.40	1.76	2.85	2.65	2.45	2.35	2.48	2.24						
Norman *		1.40	1.73	2.34	1.96	1.82	1.57	1.56	1.39						
Norwich Union *		1.44	1.67	2.65	2.36	2.20	2.13	1.90	1.69						
Pearl		1.61	1.96	2.76	2.55	2.35	2.62	3.37	3.21						
Provincial		1.44	1.91	3.02	2.86	2.85	2.86	2.84	2.84						
Prudential		1.47	2.03	3.30	3.21	3.08	3.00	2.94	2.73						
Royal *		1.40	1.80	2.69	2.46	2.28	2.19	1.94	1.93						
Sun Alliance		1.46	1.95	3.10	2.94	2.85	2.62	2.35	2.32						
Wesleyan & General		1.59	2.23	3.10	2.63	2.21	1.70	1.56	2.75						
TOTAL		1.46	1.92	3.01	2.81	2.65	2.47	2.36	2.34						
TOTAL of 1989 DATA		1.43	1.84	2.87	2.65	2.47	2.36	2.29	2.30						

* For these companies separate Comp data were available

Risk Group : MOTOR - COMPREHENSIVE

Name	MEAN TERMS (contd.)							Method : COMPANY INCURRED			
	8	9	10	11	12	13	14+				
Avon	1.74	.96	.50	5.00	4.00	3.00	2.00				
Britannic	1.73	1.17	.82	.50	--	--	--				
Commercial Union	2.73	2.12	2.78	2.47	1.91	3.00	2.00				
Co-operative	3.21	3.07	3.27	2.82	2.06	2.13	2.00				
Cornhill	2.57	2.05	2.13	4.18	3.82	2.97	2.00				
Eagle Star *	1.87	1.70	1.61	2.21	1.64	1.36	2.00				
General Accident	2.28	1.98	2.06	1.84	2.72	2.97	2.00				
Guardian Royal	2.57	2.43	3.11	3.33	3.38	2.46	2.00				
Iron Trades Mut. *	2.44	2.21	1.37	.81	.65	3.00	2.00				
Legal & General	2.23	1.49	1.38	4.33	5.06	4.20	2.00				
London & Edinburgh	1.90	1.12	.84	1.19	1.50	.50	--				
Nat.Farmers Union	2.86	2.50	3.91	3.56	4.00	3.00	2.00				
Nat.Ins.& G'tee	2.11	1.41	1.34	.79	.50	3.00	2.00				
Norman *	.69	.50	--	--	--	--	--				
Norwich Union *	1.63	1.49	.77	.50	--	--	--				
Pearl	2.42	1.46	1.18	1.05	4.00	3.00	2.00				
Provincial	2.50	2.34	2.51	3.81	3.61	3.00	2.00				
Prudential	2.69	2.21	2.25	3.61	3.61	2.73	2.00				
Royal *	1.90	2.73	2.77	2.05	1.60	1.73	2.00				
Sun Alliance	2.19	1.90	2.07	2.79	2.75	1.71	2.00				
Wesleyan & General	2.46	1.46	1.47	.50	--	--	--				
TOTAL	2.40	2.45	2.44	2.62	2.63	2.48	2.00				
TOTAL of 1989 DATA	2.27	2.37	2.17	2.26	2.12	2.00(13+)					

* For these companies separate Comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE			Method : INFLATION ADJUSTED CHAIN LADDER						
Future Inflation 8.00%			PER MILLE						
Name	Size		RUN-OFF PATTERN						
	0	1	2	3	4	5	6	7	
Avon	15,024	344	204	78	43	45	55	20	
Britannic	5,278	167	159	68	115	86	74	21	
Commercial Union	36,314	285	261	141	117	89	53	29	8
Co-operative	91,227	242	234	120	112	83	75	54	18
Cornhill	45,267	271	258	151	110	73	58	27	12
Eagle Star *	102,081	239	242	130	123	82	65	60	22
General Accident	141,358	277	242	119	105	100	65	44	17
Guardian Royal	198,000	249	264	151	118	91	63	37	9
Iron Trades Mut. *	35,554	377	257	92	93	77	48	24	17
Legal & General	9,021	240	231	125	146	68	67	45	28
London & Edinburgh	139,403	314	280	116	105	79	44	21	11
Nat. Farmers Union	30,529	284	206	105	123	71	82	52	21
Nat. Ins. & G'tee	98,415	290	274	114	100	80	62	37	13
Norman *	1,198	349	298	77	60	25	14	25	53
Norwich Union *	167,393	272	243	121	108	87	65	38	36
Pearl	12,582	208	229	180	105	167	42	40	4
Provincial	30,528	251	223	130	115	67	102	37	17
Prudential	48,429	308	251	117	102	79	51	38	13
Royal *	73,682	223	288	151	104	88	59	40	19
Sun Alliance	184,216	285	278	155	113	92	38	23	7
Wesleyan & General	2,179	130	86	53	33	40	6	189	24
TOTAL	1,467,678	275	259	131	110	86	62	42	14
TOTAL of 1989 data	1,150,505	274	253	129	110	85	56	36	21

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE				Method : INFLATION ADJUSTED CHAIN LADDER			
Future Inflation 8.00%				PER MILLE (contd.)			
Name	8	9	10	11	12	13	14+
Avon	16	118	1	0	0	0	0
Britannic	17	207	26	10	0	0	0
Commercial Union	3	12	1	0	0	0	0
Co-operative	16	17	5	2	9	5	9
Cornhill	7	17	11	1	0	0	4
Eagle Star *	10	9	6	2	4	0	5
General Accident	11	10	4	4	1	0	2
Guardian Royal	6	9	1	1	0	0	0
Iron Trades Mut. *	7	2	2	4	0	0	0
Legal & General	7	31	9	1	0	-1	2
London & Edinburgh	3	23	3	1	0	0	0
Nat. Farmers Union	13	39	1	2	0	0	1
Nat. Ins. & G'tee	6	24	1	0	0	0	0
Norman *	32	16	48	3	0	0	0
Norwich Union *	16	8	5	2	0	0	0
Pearl	1	24	1	0	0	0	0
Provincial	17	32	8	1	0	0	0
Prudential	7	14	9	4	0	1	7
Royal *	15	10	4	0	0	0	0
Sun Alliance	4	4	1	0	0	0	0
Wesleyan & General	0	412	1	26	0	0	0
TOTAL	8	4	4	2	1	1	2
TOTAL of 1989 data	14	7	6	3	2	4(13+)	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE		Method : INFLATION ADJUSTED CHAIN LADDER						
Name	0	MEAN TERMS					6	7
		1	2	3	4	5		
Avon	3.16	3.55	3.93	3.64	3.44	2.93	2.46	2.15
Britannic	4.69	4.53	4.49	3.93	3.74	3.42	2.83	2.45
Commercial Union	2.40	2.16	2.11	1.83	1.63	1.58	1.63	1.97
Co-operative	3.13	2.97	3.07	2.83	2.72	2.59	2.75	3.27
Cornhill	2.62	2.40	2.45	2.36	2.34	2.31	2.64	2.72
Eagle Star *	2.91	2.67	2.69	2.41	2.30	2.10	1.98	2.51
General Accident	2.71	2.55	2.59	2.27	1.99	1.93	1.93	2.20
Guardian Royal	2.54	2.22	2.15	1.90	1.65	1.49	1.48	1.83
Iron Trades Mut. *	2.17	2.18	2.36	1.98	1.75	1.68	1.69	1.58
Legal & General	2.95	2.73	2.70	2.38	2.45	2.15	2.06	1.95
London & Edinburgh	2.34	2.18	2.33	2.07	1.96	2.06	2.18	2.03
Nat. Farmers Union	2.92	2.89	2.86	2.47	2.34	1.96	1.90	1.86
Nat. Ins. & G'tee	2.51	2.34	2.49	2.20	1.96	1.77	1.76	1.82
Norman *	2.74	2.94	4.00	3.97	3.93	3.37	2.61	1.95
Norwich Union *	2.73	2.56	2.59	2.28	2.03	1.81	1.63	1.29
Pearl	2.78	2.38	2.14	1.91	1.44	1.86	1.68	2.29
Provincial	2.96	2.79	2.76	2.50	2.33	1.89	2.17	1.99
Prudential	2.61	2.55	2.72	2.52	2.43	2.50	2.60	3.08
Royal *	2.66	2.29	2.34	2.16	1.89	1.73	1.56	1.46
Sun Alliance	2.26	1.97	1.90	1.66	1.43	1.51	1.48	1.86
Wesleyan & General	6.28	6.15	5.77	5.15	4.37	3.61	2.64	2.51
TOTAL	2.57	2.35	2.38	2.12	1.90	1.77	1.76	2.23
TOTAL of 1989 data	2.67	2.50	2.57	2.34	2.20	2.18	2.18	2.25

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE Method : INFLATION ADJUSTED CHAIN LADDER

Name	MEAN TERMS (contd.)						
	8	9	10	11	12	13	14+
Avon	1.39	.51	.50	--	--	--	--
Britannic	1.61	.69	.78	.50	--	--	--
Commercial Union	1.61	.88	2.48	2.39	2.26	3.00	2.00
Co-operative	3.08	2.95	3.31	2.88	2.11	2.16	2.00
Cornhill	2.35	1.75	2.06	4.13	3.83	2.96	2.00
Eagle Star *	2.72	2.51	2.61	2.77	2.30	2.96	2.00
General Accident	2.07	1.91	2.20	2.04	2.80	2.97	2.00
Guardian Royal	1.47	1.03	1.85	2.23	3.13	2.31	2.00
Iron Trades Mut. *	1.74	1.77	1.19	.50	--	--	--
Legal & General	1.77	.99	1.40	4.51	5.06	4.18	2.00
London & Edinburgh	1.57	.71	.88	1.30	1.50	.50	--
Nat. Farmers Union	1.40	.68	2.21	1.73	4.00	3.00	2.00
Nat. Ins. & G'tee	1.36	.55	.72	.23	.50	--	--
Norman *	1.72	1.31	.56	.50	--	--	--
Norwich Union *	1.25	1.07	.76	.55	.50	--	--
Pearl	1.55	.57	.84	.50	--	--	--
Provincial	1.41	.79	.81	1.47	1.92	3.00	2.00
Prudential	2.85	2.35	2.64	3.26	3.63	2.72	2.00
Royal *	1.08	.69	.24	2.70	1.73	.50	--
Sun Alliance	1.74	1.51	2.35	3.08	2.76	1.72	2.00
Wesleyan & General	1.62	.62	1.47	.50	--	--	--
TOTAL	2.33	2.47	2.42	2.69	2.66	2.47	2.00
TOTAL of 1989 data	2.28	2.37	2.23	2.27	2.11	2.00(13+)	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE			Method : BASIC CHAIN LADDER						
Name	Size	RUN-OFF PATTERN PER MILE							
		0	1	2	3	4	5	6	7
Avon	15,024	337	199	73	70	41	40	50	21
Britannic	5,278	159	153	65	104	82	48	64	24
Commercial Union	36,314	279	262	138	117	90	53	29	9
Co-operative	91,227	238	232	117	111	82	74	53	20
Cornhill	45,267	256	254	152	111	70	61	27	15
Eagle Star *	102,081	230	242	125	118	84	67	70	23
General Accident	141,358	274	244	118	103	99	63	44	19
Guardian Royal	198,000	245	262	150	118	91	64	37	10
Iron Trades Mut. *	35,554	388	253	91	89	74	46	24	17
Legal & General	9,021	230	230	127	140	67	66	42	33
London & Edinburgh	139,403	306	280	116	104	80	44	20	12
Nat. Farmers Union	30,529	282	203	105	117	68	82	52	23
Nat. Ins. & G'tee	98,415	281	272	112	99	79	63	37	15
Norman *	1,198	323	295	83	60	30	16	26	43
Norwich Union *	167,393	263	244	119	105	87	67	41	43
Pearl	12,582	206	231	175	103	168	40	39	4
Provincial	30,528	246	218	127	112	65	104	36	18
Prudential	48,429	303	247	113	99	81	50	38	14
Royal *	73,682	204	281	147	105	93	66	47	22
Sun Alliance	184,216	280	279	154	113	94	37	24	8
Wesleyan & General	2,179	98	66	41	24	28	4	165	24
TOTAL	1,467,678	270	260	130	109	86	62	43	16
TOTAL of 1989 data	1,150,505	270	253	127	108	85	57	38	23

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE Method : BASIC CHAIN LADDER

Name	RUN-OFF PATTERN PER MILLE (contd.)					Method : BASIC CHAIN LADDER			
	8	9	10	11	12	13	14+		
Avon	18	149	2	0	0	0	0		
Britannic	19	242	29	12	0	0	0		
Commercial Union	4	17	1	1	0	0	0		1
Co-operative	17	21	6	3	10	6	10		6
Cornhill	8	24	14	1	0	0	0		6
Eagle Star *	11	10	7	2	5	0	0		6
General Accident	12	12	4	4	1	0	0		2
Guardian Royal	7	12	2	1	0	0	0		1
Iron Trades Mut. *	7	2	2	5	0	0	0		0
Legal & General	8	43	11	1	0	-1	3		3
London & Edinburgh	4	29	4	1	0	0	0		0
Nat. Farmers Union	13	50	1	2	0	0	1		1
Nat. Ins. & G'tee	7	33	1	0	0	0	0		0
Norman *	40	21	59	4	0	0	0		0
Norwich Union *	17	8	5	1	0	0	0		0
Pearl	1	32	1	1	0	0	0		0
Provincial	19	43	9	1	0	0	0		0
Prudential	9	18	11	4	0	1	9		9
Royal *	17	13	5	0	0	0	0		0
Sun Alliance	4	5	1	0	0	1	1		1
Wesleyan & General	1	510	1	38	0	0	0		0
TOTAL	10	5	4	2	1	1	3		3
TOTAL of 1989 data	15	8	6	3	3	5(13+)			

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE

Method : BASIC CHAIN LADDER

Name	MEAN TERMS							
	0	1	2	3	4	5	6	7
Avon	3.37	3.83	4.26	3.96	3.71	3.18	2.63	2.19
Britannic	4.96	4.81	4.77	4.21	3.95	3.60	2.98	2.46
Commercial Union	2.46	2.21	2.19	1.93	1.75	1.73	1.80	2.04
Co-operative	3.22	3.07	3.20	2.97	2.87	2.76	2.91	3.30
Cornhill	2.78	2.57	2.63	2.59	2.61	2.56	2.87	2.81
Eagle Star *	3.02	2.78	2.82	2.54	2.39	2.18	2.01	2.65
General Accident	2.74	2.59	2.64	2.34	2.06	2.02	1.99	2.19
Guardian Royal	2.60	2.28	2.23	1.99	1.77	1.62	1.64	1.92
Iron Trades Mut. *	2.15	2.20	2.40	2.05	1.83	1.76	1.77	1.69
Legal & General	3.08	2.86	2.86	2.59	2.66	2.37	2.25	2.01
London & Edinburgh	2.41	2.25	2.44	2.20	2.11	2.24	2.34	2.09
Nat. Farmers Union	3.02	3.01	3.00	2.64	2.50	2.12	2.05	1.94
Nat. Ins. & G'tee	2.62	2.45	2.64	2.35	2.13	1.95	1.94	1.89
Norman *	2.95	3.11	4.13	4.13	4.03	3.54	2.79	2.14
Norwich Union *	2.80	2.62	2.67	2.36	2.08	1.84	1.61	1.22
Pearl	2.84	2.44	2.24	2.02	1.57	2.10	1.92	2.32
Provincial	3.08	2.93	2.92	2.67	2.49	2.05	2.32	2.05
Prudential	2.74	2.71	2.92	2.73	2.67	2.78	2.87	3.21
Royal *	2.83	2.43	2.48	2.27	1.97	1.77	1.57	1.47
Sun Alliance	2.29	1.99	1.93	1.70	1.48	1.62	1.59	1.88
Wesleyan & General	7.04	6.75	6.24	5.53	4.69	3.85	2.87	2.55
TOTAL	2.62	2.40	2.45	2.19	1.99	1.86	1.86	2.25
TOTAL of 1989 data	2.73	2.56	2.65	2.43	2.29	2.25	2.25	2.32

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE Method : BASIC CHAIN LADDER

Name	MEAN TERMS (contd.)				12	13	14+
	8	9	10	11			
Avon	1.40	.51	.50	--	--	--	--
Britannic	1.61	.69	.79	.50	--	--	--
Commercial Union	1.62	.85	2.44	2.29	2.28	3.00	2.00
Co-operative	3.07	2.86	3.31	2.88	2.12	2.14	2.00
Cornhill	2.43	1.76	2.16	4.18	3.85	2.95	2.00
Eagle Star *	2.85	2.68	2.78	2.96	2.42	2.96	2.00
General Accident	2.06	1.85	2.22	2.04	2.76	2.96	2.00
Guardian Royal	1.56	1.06	1.97	2.34	3.28	2.42	2.00
Iron Trades Mut. *	1.84	1.81	1.20	.50	--	--	--
Legal & General	1.78	.97	1.46	4.49	4.99	4.11	2.00
London & Edinburgh	1.58	.71	.88	1.28	1.50	.50	--
Nat. Farmers Union	1.44	.67	2.18	1.64	4.00	3.00	2.00
Nat. Ins. & G'tee	1.38	.55	.69	.22	.50	--	--
Norman *	1.71	1.29	.56	.50	--	--	--
Norwich Union *	1.21	1.04	.78	.57	.50	--	--
Pearl	1.55	.57	.83	.50	--	--	--
Provincial	1.44	.77	.86	1.60	2.04	3.00	2.00
Prudential	2.95	2.43	2.76	3.47	3.64	2.72	2.00
Royal *	1.08	.66	.20	2.68	1.68	.50	--
Sun Alliance	1.74	1.44	2.42	3.15	2.77	1.73	2.00
Wesleyan & General	1.64	.64	1.47	.50	--	--	--
TOTAL	2.37	2.50	2.47	2.75	2.71	2.47	2.00
TOTAL of 1989 data	2.36	2.44	2.30	2.31	2.12	2.00(13+)	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE				Method : AVERAGE CLAIM						
Future Inflation 8.00%				RUN-OFF PATTERN PER MILLE						
Name	Size	0	1	2	3	4	5	6	7	
Avon	15,024	266	170	75	71	41	54	66	32	
Britannic	5,278	141	132	57	90	70	41	60	31	
Commercial Union	36,314	284	253	137	113	85	49	28	16	
Co-operative	91,227	235	222	114	103	77	70	51	29	
Cornhill	45,267	266	244	144	104	70	52	25	21	
Eagle Star *	102,081	247	237	130	119	80	65	63	22	
General Accident	141,358	262	229	112	98	96	61	45	33	
Guardian Royal	198,000	242	256	148	116	91	61	34	17	
Iron Trades Mut. *	35,554	361	251	93	95	86	56	19	21	
Legal & General	9,021	229	223	128	132	65	64	37	43	
London & Edinburgh	139,403	304	260	110	100	75	42	20	24	
Nat. Farmers Union	30,529	247	198	99	126	72	81	55	34	
Nat. Ins. & G'tee	98,415	289	260	111	94	75	57	35	22	
Norman *	1,198	319	314	80	64	34	20	23	66	
Norwich Union *	167,393	286	247	122	108	85	61	34	31	
Pearl	12,582	191	208	171	102	160	38	38	12	
Provincial	30,528	250	215	123	109	67	92	36	24	
Prudential	48,429	294	237	110	97	75	48	38	24	
Royal *	73,682	225	272	148	106	91	66	43	19	
Sun Alliance	184,216	280	266	150	109	90	38	23	17	
Wesleyan & General	2,179	100	64	39	25	30	4	191	28	
TOTAL	1,467,678	271	247	127	106	83	59	40	26	
TOTAL of 1989 data	1,150,505	277	253	129	109	85	55	36	21	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE		Method : AVERAGE CLAIM									
Future Inflation 8.00%		RUN-OFF PATTERN PER MILLE (contd.)									
Name	8	9	10	11	12	13	14+				
Avon	27	195	2	0	0	0	0				
Britannic	25	302	37	14	0	0	0				
Commercial Union	7	25	1	1	1	0	1				
Co-operative	25	27	8	3	14	7	15				
Cornhill	13	32	20	2	0	0	8				
Eagle Star *	10	9	6	3	4	0	5				
General Accident	22	20	7	8	2	0	4				
Guardian Royal	13	17	3	1	0	0	1				
Iron Trades Mut. *	8	2	2	4	0	0	0				
Legal & General	11	49	14	1	0	1	3				
London & Edinburgh	8	50	7	1	0	1	0				
Nat. Farmers Union	20	62	1	2	0	0	1				
Nat. Ins. & G'tee	10	43	1	1	0	0	0				
Norman *	28	14	37	2	0	0	0				
Norwich Union *	13	7	4	1	0	0	0				
Pearl	2	74	3	1	0	0	0				
Provincial	25	47	11	1	0	0	0				
Prudential	14	27	17	7	0	2	13				
Royal *	17	11	3	0	0	0	0				
Sun Alliance	10	11	3	1	0	1	1				
Wesleyan & General	1	486	1	30	0	0	0				
TOTAL	16	8	7	3	2	1	4				
TOTAL of 1989 data	14	7	6	3	2	4(13+)					

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE									
Name	MEAN TERMS							Method : AVERAGE CLAIM	
	0	1	2	3	4	5	6	7	
Avon	4.08	4.38	4.55	4.18	3.80	3.16	2.61	2.15	
Britannic	5.53	5.35	5.23	4.63	4.27	3.78	3.07	2.45	
Commercial Union	2.56	2.37	2.39	2.18	2.07	2.11	2.10	1.97	
Co-operative	3.48	3.39	3.57	3.39	3.30	3.17	3.21	3.27	
Cornhill	2.91	2.79	2.93	2.94	2.98	2.99	3.05	2.72	
Eagle Star *	2.91	2.70	2.72	2.47	2.34	2.13	1.99	2.56	
General Accident	3.05	2.95	3.05	2.77	2.52	2.49	2.34	2.20	
Guardian Royal	2.70	2.41	2.38	2.17	1.99	1.91	1.92	1.83	
Iron Trades Mut. *	2.26	2.26	2.40	2.00	1.72	1.64	1.77	1.43	
Legal & General	3.20	3.00	3.02	2.80	2.86	2.54	2.38	1.95	
London & Edinburgh	2.68	2.63	2.90	2.70	2.67	2.73	2.57	2.03	
Nat. Farmers Union	3.31	3.23	3.21	2.80	2.68	2.30	2.13	1.86	
Nat. Ins. & G'tee	2.71	2.60	2.82	2.58	2.39	2.22	2.10	1.82	
Norman *	2.74	2.79	3.75	3.66	3.56	3.10	2.41	1.70	
Norwich Union *	2.61	2.45	2.49	2.19	1.96	1.78	1.63	1.30	
Pearl	3.23	2.87	2.69	2.55	2.19	2.80	2.47	2.29	
Provincial	3.15	3.03	3.05	2.81	2.65	2.26	2.37	1.99	
Prudential	3.00	3.04	3.31	3.17	3.15	3.20	3.12	3.08	
Royal *	2.73	2.38	2.40	2.18	1.90	1.70	1.56	1.45	
Sun Alliance	2.44	2.20	2.20	2.04	1.91	2.13	2.04	1.86	
Wesleyan & General	6.93	6.64	6.11	5.39	4.55	3.71	2.73	2.51	
TOTAL	2.78	2.62	2.70	2.49	2.33	2.24	2.20	2.23	
TOTAL of 1989 data	2.67	2.49	2.56	2.34	2.20	2.18	2.18	2.25	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE

Name	MEAN TERMS (contd.)						Method : AVERAGE CLAIM	
	8	9	10	11	12	13	14+	
Avon	1.39	.51	.50	--	--	--	--	
Britannic	1.61	.69	.78	.50	--	--	--	
Commercial Union	1.61	.88	2.48	2.39	2.26	3.00	2.00	
Co-operative	3.08	2.95	3.31	2.88	2.11	2.16	2.00	
Cornhill	2.35	1.75	2.06	4.13	3.83	2.96	2.00	
Eagle Star *	2.81	2.61	2.65	2.73	2.37	2.97	2.00	
General Accident	2.07	1.91	2.20	2.04	2.80	2.97	2.00	
Guardian Royal	1.47	1.03	1.85	2.23	3.13	2.31	2.00	
Iron Trades Mut. *	1.68	1.84	1.16	.50	--	--	--	
Legal & General	1.77	.99	1.40	4.51	5.06	4.18	2.00	
London & Edinburgh	1.57	.71	.88	1.30	1.50	.50	--	
Nat. Farmers Union	1.40	.68	2.21	1.73	4.00	3.00	2.00	
Nat. Ins. & G'tee	1.36	.55	.72	.23	.50	--	--	
Norman *	1.67	1.28	.56	.50	--	--	--	
Norwich Union *	1.25	1.06	.76	.55	.50	--	--	
Pearl	1.55	.57	.84	.50	--	--	--	
Provincial	1.41	.79	.81	1.47	1.92	3.00	2.00	
Prudential	2.85	2.35	2.64	3.26	3.63	2.72	2.00	
Royal *	1.03	.69	.32	3.20	2.14	.50	--	
Sun Alliance	1.74	1.51	2.35	3.08	2.76	1.72	2.00	
Wesleyan & General	1.62	.62	1.47	.50	--	--	--	
TOTAL	2.33	2.47	2.42	2.69	2.66	2.47	2.00	
TOTAL of 1989 data	2.28	2.37	2.23	2.27	2.11	2.00 (13+)		

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE

Method : COMPANY INCURRED

Name	Size	RUN-OFF PATTERN PER MILLE							
		0	1	2	3	4	5	6	7
Avon	15,024	377	225	78	78	45	43	29	37
Britannic	5,278	262	221	90	108	117	61	33	28
Commercial Union	36,314	262	241	138	122	95	66	27	17
Co-operative	91,227	218	206	105	95	73	66	57	37
Cornhill	45,267	258	245	147	109	76	58	24	28
Eagle Star *	102,081	241	233	130	122	82	68	63	24
General Accident	141,358	286	244	110	92	91	53	41	30
Guardian Royal	198,000	241	256	145	111	85	57	36	20
Iron Trades Mut. *	35,554	335	237	94	97	88	61	25	33
Legal & General	9,021	241	235	131	133	69	65	33	30
London & Edinburgh	139,403	317	267	113	104	80	45	21	20
Nat. Farmers Union	30,529	313	234	113	122	62	71	33	19
Nat. Ins. & G'tee	98,415	278	258	108	90	72	59	38	27
Norman *	1,198	327	288	87	71	33	22	20	65
Norwich Union *	167,393	261	227	119	110	93	71	41	39
Pearl	12,582	194	209	170	110	160	45	29	19
Provincial	30,528	264	235	137	111	68	81	31	23
Prudential	48,429	298	236	107	92	71	44	40	26
Royal *	73,682	230	266	144	101	86	65	48	22
Sun Alliance	184,216	272	260	143	109	90	41	30	19
Wesleyan & General	2,179	328	208	102	54	51	9	132	33
TOTAL	1,467,678	265	244	122	103	81	59	44	31
TOTAL of 1989 data	1,150,505	268	244	124	105	84	61	40	27

* For these companies separate Non-comp data were available

Risk Group : MOTOR ~ NON COMPREHENSIVE

Name	RUN-OFF PATTERN PER MILLE (contd.)						
	8	9	10	11	12	13	14+
Avon	26	35	30	0	0	0	0
Britannic	15	34	23	11	0	0	0
Commercial Union	7	13	3	2	5	0	3
Co-operative	32	36	13	6	24	12	22
Cornhill	9	20	18	1	0	0	8
Eagle Star *	10	10	7	3	3	0	4
General Accident	20	14	7	8	2	0	4
Guardian Royal	17	15	6	3	0	2	7
Iron Trades Mut. *	13	4	5	8	0	0	0
Legal & General	11	26	23	2	0	-2	5
London & Edinburgh	7	14	10	2	0	1	0
Nat. Farmers Union	9	13	2	3	0	0	7
Nat. Ins. & G'tee	11	31	10	14	6	0	0
Norman *	22	10	26	1	0	0	28
Norwich Union *	16	10	8	3	1	0	0
Pearl	1	34	18	13	0	0	2
Provincial	13	16	13	2	1	0	8
Prudential	20	26	19	11	0	1	10
Royal *	19	16	3	0	0	0	0
Sun Alliance	12	11	7	2	0	2	2
Wesleyan & General	0	45	1	41	0	0	0
TOTAL	20	11	8	4	3	1	5
TOTAL of 1989 data	19	9	8	4	3	5(13+)	

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE				Method : COMPANY INCURRED				
Name	MEAN TERMS							
	0	1	2	3	4	5	6	7
Avon	2.75	3.12	3.59	3.33	3.23	2.84	2.49	1.95
Britannic	3.16	3.11	3.21	2.78	2.54	2.71	2.64	2.28
Commercial Union	2.70	2.48	2.45	2.20	2.06	2.09	2.44	2.49
Co-operative	3.97	3.94	4.17	3.99	3.86	3.67	3.55	3.50
Cornhill	2.86	2.69	2.76	2.70	2.70	2.70	2.88	2.57
Eagle Star *	2.94	2.71	2.69	2.42	2.27	2.03	1.87	2.33
General Accident	2.85	2.79	2.97	2.72	2.48	2.49	2.33	2.21
Guardian Royal	2.85	2.60	2.67	2.54	2.45	2.48	2.55	2.60
Iron Trades Mut. *	2.53	2.55	2.69	2.31	2.05	1.97	1.99	1.58
Legal & General	3.03	2.83	2.86	2.65	2.74	2.54	2.58	2.31
London & Edinburgh	2.42	2.32	2.48	2.22	2.12	2.21	2.25	1.94
Nat. Farmers Union	2.61	2.57	2.64	2.34	2.37	2.11	2.43	2.63
Nat. Ins. & G'tee	2.93	2.86	3.17	2.98	2.82	2.67	2.60	2.40
Norman *	2.96	3.16	4.15	4.22	4.39	4.05	3.50	2.90
Norwich Union *	2.90	2.74	2.74	2.41	2.16	1.96	1.84	1.55
Pearl	3.21	2.86	2.68	2.54	2.23	2.94	2.88	2.67
Provincial	2.89	2.74	2.79	2.65	2.58	2.35	2.75	2.67
Prudential	3.03	3.10	3.41	3.28	3.23	3.21	2.99	2.88
Royal *	2.79	2.47	2.52	2.33	2.04	1.81	1.60	1.48
Sun Alliance	2.60	2.38	2.43	2.28	2.18	2.38	2.28	2.24
Wesleyan & General	3.21	3.52	3.85	3.79	3.36	2.92	2.01	2.65
TOTAL	2.90	2.77	2.90	2.69	2.54	2.43	2.32	2.28
TOTAL of 1989 data	2.84	2.70	2.80	2.58	2.42	2.34	2.31	2.28

* For these companies separate Non-comp data were available

Risk Group : MOTOR - NON COMPREHENSIVE

Name	MEAN TERMS (contd.)							Method : COMPANY INCURRED			
	8	9	10	11	12	13	14+				
Avon	1.54	.96	.50	5.00	4.00	3.00	2.00				
Britannic	1.86	1.16	.82	.50	--	--	--				
Commercial Union	2.54	2.12	2.78	2.47	1.91	3.00	2.00				
Co-operative	3.29	3.08	3.27	2.82	2.06	2.13	2.00				
Cornhill	2.63	2.03	2.13	4.18	3.82	2.97	2.00				
Eagle Star *	2.51	2.25	2.33	2.57	2.37	2.98	2.00				
General Accident	2.13	2.05	2.06	1.84	2.72	2.97	2.00				
Guardian Royal	2.44	2.47	3.11	3.33	3.38	2.46	2.00				
Iron Trades Mut. *	1.80	1.77	1.12	.50	--	--	--				
Legal & General	2.14	1.48	1.38	4.33	5.06	4.20	2.00				
London & Edinburgh	1.81	1.15	.84	1.19	1.50	.50	--				
Nat. Farmers Union	2.83	2.63	3.91	3.56	4.00	3.00	2.00				
Nat. Ins. & G'tee	2.11	1.40	1.34	.79	.50	3.00	2.00				
Norman *	3.70	3.77	3.34	4.80	4.00	3.00	2.00				
Norwich Union *	1.58	1.32	.96	.78	.50	--	--				
Pearl	2.29	1.32	1.18	1.05	4.00	3.00	2.00				
Provincial	2.62	2.31	2.51	3.81	3.61	3.00	2.00				
Prudential	2.57	2.18	2.25	2.70	3.61	2.73	2.00				
Royal *	1.06	.63	.43	4.18	2.53	.50	--				
Sun Alliance	2.12	1.94	2.07	2.79	2.75	1.71	2.00				
Wesleyan & General	2.45	1.46	1.47	.50	4.00	3.00	2.00				
TOTAL	2.35	2.47	2.44	2.62	2.63	2.48	2.00				
TOTAL of 1989 data	2.26	2.37	2.17	2.26	2.12	2.00(13+)					

* For these companies separate Non-comp data were available

WEIGHTED MEAN TERMS (USING OUTSTANDING PROPORTIONS ON RUN-OFF PATTERN AS WEIGHTS)
 Risk Group : FIRE

Name	METHOD			CI	SENSITIVITY ANALYSIS OF AGGREGATE DATA		
	8%	IACL	BCL	8%	AVC	CI	
Avon	1.72	1.68	1.82				
Britannic	.67	.68	.65				
Commercial Union	1.18	1.16	1.16				
Co-operative	1.19	1.18	1.26				
Cornhill	.95	.94	.95				
Eagle Star	1.53	1.48	1.47				
Ecclesiastical	2.47	2.42	2.29				
Economic	1.73	1.70	1.47				
General Accident	1.11	1.09	1.11				
Guardian Royal	1.18	1.16	1.16				
Ins.Co.North America	1.90	1.88	1.59				
Iron Trades Mutual	.61	.61	.62				
Legal & General	1.49	1.44	1.17				
Minster	1.02	.99	.90				
Municipal General	.77	.75	.83				
Municipal Mutual	1.61	1.60	1.61				
Nat. Farm. Union Mut.	.64	.64	.60				
Norwich Union	1.08	1.06	1.04				
Provincial	2.05	2.01	2.14				
Prudential	1.10	1.09	1.03				
Refuge	.73	.77	.69				
Royal	.73	.74	.73				
Sun Alliance & London	1.22	1.19	1.18				
Wesleyan & General	1.88	1.83	1.64				
TOTAL	1.32	1.30	1.30				3.72
1989 TOTAL	1.28	1.26	1.26				1.50

WEIGHTED MEAN TERM

BY ASSUMED MEAN TERM FOR TAIL

Risk Group : FIRE

Assumed Mean term for tail	METHOD		8%	AVC	CI
	IACL	BCL			
1	1.25	1.23	1.23	1.23	2.72
2	1.32	1.30	1.30	1.30	3.72
3	1.40	1.36	1.37	1.37	4.72
4	1.47	1.43	1.44	1.44	5.73

WEIGHTED MEAN TERMS (USING OUTSTANDING PROPORTIONS ON RUN-OFF PATTERN AS WEIGHTS)
Risk Group : EMPLOYERS LIABILITY

SENSITIVITY ANALYSIS OF AGGREGATE DATA

Name	8% IACL	BCL	8% AVC	CI	WEIGHTED MEAN TERM			
					BY ASSUMED MEAN TERM FOR TAIL			
Avon	2.22	2.25	2.20	2.81	Risk Group : EMPLOYERS LIABILITY			
Commercial Union	2.27	2.34	2.38	2.50				
Co-operative	3.67	3.82	3.99	3.60				
Cornhill	3.17	3.37	3.09	4.61				
Eagle Star	4.78	5.04	4.84	4.79				
General Accident	3.53	3.72	3.25	4.07	Assumed Mean term for tail	8% IACL	METHOD BCL AVC	
Guardian Royal	3.49	3.68	3.28	3.60				
Iron Trades Mut.	2.89	2.97	2.99	5.12	2	4.04	4.26	4.03
Iron Trades Empl.	3.01	3.17	3.07	3.25				
Legal & General	4.56	4.77	4.48	4.34	4	4.38	4.64	4.36
Norwich Union	7.25	7.60	7.12	7.04	6	4.71	5.01	4.69
Orion	2.84	2.86	2.98	2.82	8	5.05	5.38	5.02
Pearl	3.15	3.29	2.95	3.48				
Provincial	3.61	3.82	3.61	3.83				
Prudential	3.33	3.46	3.23	3.68				
Royal	6.40	6.69	6.48	6.44				
Sun Alliance	6.54	6.88	5.91	6.59				
Wesleyan & General	2.01	1.99	1.97	1.91				
TOTAL	4.38	4.64	4.36	4.65				
1989 TOTAL	3.85	4.04	3.82	4.22				

WEIGHTED MEAN TERMS (USING PROPORTIONS ON RUN-OFF PATTERN AS WEIGHTS)

Risk Group : MOTOR - COMPREHENSIVE					SENSITIVITY ANALYSIS OF AGGREGATE DATA				
Name	8%	IACL	METHOD		CI	WEIGHTED MEAN TERM			
			BCL	8% AVC		BY ASSUMED MEAN TERM FOR TAIL			
Avon	2.60	2.81	3.10	2.51					
Britannic	3.02	3.24	3.47	2.44					
Commercial Union	1.77	1.83	2.03	2.11					
Co-operative	2.59	2.71	3.02	3.35					
Cornhill	2.28	2.44	2.67	2.61					
Eagle Star *	1.86	1.92	1.91	2.03					
General Accident	2.07	2.12	2.37	2.38					
Guardian Royal	1.61	1.66	1.81	2.05					
Iron Trades Mut. *	2.33	2.50	2.25	2.43					
Legal & General	2.25	2.37	2.61	2.63					
London & Edinburgh	2.37	2.47	2.56	2.07					
Nat. Farmers Union	2.13	2.22	2.49	2.82					
Nat. Ins. & G'tee	1.83	1.93	2.13	2.18					
Norman *	1.70	1.73	1.70	1.85					
Norwich Union *	1.83	1.92	1.78	2.00					
Pearl	1.91	2.00	2.29	2.32					
Provincial	2.05	2.16	2.35	2.47					
Prudential	2.27	2.48	2.74	2.64					
Royal *	1.97	2.08	1.97	2.14					
Sun Alliance	1.70	1.77	1.90	2.43					
Wesleyan & General	3.83	4.00	3.96	2.34					
TOTAL	1.88	1.94	2.17	2.38					
TOTAL of 1989 data	2.00	2.07	2.01	2.26					

* For these companies separate Comp data were available

WEIGHTED MEAN TERMS (USING PROPORTIONS ON RUN-OFF PATTERN AS WEIGHTS)

Risk Group : MOTOR - NON COMPREHENSIVE

SENSITIVITY ANALYSIS OF AGGREGATE DATA

Name	8% IACL			METHOD		CI	WEIGHTED MEAN TERM		
	8%	IACL	BCL	8%	AVC		BY ASSUMED MEAN TERM FOR TAIL	Risk Group : MOTOR - NON COMPREHENSIVE	
Avon	3.14	3.31	3.46	2.95				Assumed	
Britannic	3.51	3.64	3.83	2.79				Mean term	
Commercial Union	1.97	2.05	2.24	2.35				for tail	
Co-operative	2.90	3.01	3.32	3.75				1	2.19 2.26 2.48 2.65
Cornhill	2.40	2.59	2.84	2.70				2	2.21 2.27 2.52 2.67
Eagle Star *	2.51	2.61	2.54	2.49				3	2.22 2.29 2.55 2.71
General Accident	2.35	2.40	2.74	2.67				4	2.26 2.31 2.60 2.75
Guardian Royal	2.00	2.08	2.22	2.58					
Iron Trades Mut. *	2.07	2.11	2.10	2.35					
Legal & General	2.48	2.62	2.75	2.69					
London & Edinburgh	2.13	2.22	2.58	2.26					
Nat. Farmers Union	2.51	2.62	2.76	2.51					
Nat. Ins. & G'tee	2.19	2.31	2.46	2.79					
Norman *	3.11	3.23	2.94	3.70					
Norwich Union *	2.29	2.33	2.22	2.43					
Pearl	2.05	2.14	2.54	2.61					
Provincial	2.48	2.60	2.70	2.68					
Prudential	2.59	2.79	3.11	3.12					
Royal *	2.12	2.21	2.16	2.25					
Sun Alliance	1.81	1.85	2.12	2.34					
Wesleyan & General	3.97	4.14	4.08	3.18					
TOTAL	2.21	2.27	2.52	2.67					
TOTAL of 1989 data	2.40	2.48	2.40	2.59					

* For these companies separate Non-comp data were available