

**COMMONWEALTH AUTOMOBILE REINSURERS**

**MASSACHUSETTS**

**COMMERCIAL**

**AUTOMOBILE EXPERIENCE RATING PLAN**

**Effective October 1, 2001**

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Commercial Automobile Experience Rating Plan

Section 1<sup>3</sup>/<sub>4</sub> Liability

This Experience Rating Plan is designed and its rating parameters have been calculated including basic limits Bodily Injury Liability, Personal Injury Protection, and Property Damage Liability. Premises and operations liability shall also be included for garage risks. Therefore, the premiums and losses used in deriving the experience modification for any risk under this plan should include data from only these coverages.

**1. ELIGIBILITY**

The term "risk" as used in this plan means the exposures of any one insured which are to be rated. Allied or subsidiary interests shall not be included unless:

- (1) The insured holds a majority financial interest therein, or
- (2) The following conditions exist under an exclusive franchise arrangement between the franchise grantor and the other interests to be rated:
  - (a) all interests operate under a common trade name, and
  - (b) all interests use one or more identical products or services obtained through the franchise grantor, and
  - (c) one source establishes and maintains standards regarding management control and is responsible for insurance premium payment for all interests operating under the exclusive franchise, and
  - (d) there is no legal prohibition against ownership by the franchise grantor of the operations of the other interests to be rated.

Expenses other than allocated loss adjustment expenses are not taken into consideration in the parameters of this rating plan.

Any risk meeting the following qualifications for the Bodily Injury, Personal Injury Protection, and Property Damage Liability exposure to be rated shall be eligible for the application of this plan:

- (a) Five or more private passenger or commercial automobiles, one or more taxicabs, three or more public automobiles of any other type, or five or more plates of any type for risks which include registration plates not issued for a specific automobile such as garage risks, or the equivalent of such exposures for automobiles hired by the risk, or
- (b) Annual basic limits manual premium of at least \$2,500 (including premises and operations premium) for garage risks not subject to the Massachusetts Compulsory Law, or for employers non-ownership liability exposure. Note that the headquarters location of the risk shall govern the application of this plan for all employers non-ownership liability exposures regardless of location.

**2. EXPERIENCE MODIFICATION**

The experience modification for the risk shall be determined in accordance with the experience rating procedure described herein and shall be applied to the total current manual premium for the Bodily Injury, Personal Injury Protection, and Property Damage Liability (including all increased limits, and premises and operations for garage risks) coverages included on the policy being rated.

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**3. EXPERIENCE USED**

The experience modification shall be determined, by the company establishing the rating, from the latest available three completed policy years of experience incurred in this state, or in all states by the risk. In the event the experience for the full experience period is not available, at least two completed policy years shall be used. Risks with less than two completed policy years of experience shall not be experience rated. The experience period shall end at least six months prior to the rating date.

Experience developed by companies other than the company establishing the modification or self-insured experience may be used subject to the periods specified above. If the risk has been self-insured or insured with a company from which the experience is not obtainable, the experience may be used if submitted to the company in the form of a statement signed by the insured. Experience in such form may be excluded from the rating if its reliability can not be established.

**4. DETERMINATION OF EXPERIENCE MODIFICATION**

The term "basic limits" shall mean \$20,000/40,000 Bodily Injury Liability, \$8,000 Personal Injury Protection (PIP), and \$5,000 Property Damage Liability.

A. Total Basic Limits Premium Subject to Experience Rating

The premiums to be included in the rating are calculated as follows:

- (i) Determine the current annual basic limits premium for Bodily Injury, PIP and Property Damage Liability for the policy being rated using CAR's current manual rates. The policy being rated is the policy to which the experience modification of Rule 4F shall apply.
- (ii) The annual basic limits premium for each year of the experience period is the annual basic limits premium determined according to A(i) above, multiplied by the appropriate detrend factor from Table A.

<b>Liability Experience Rating Plan Factors</b>			
<b>Table A - Premium Detrend Factors</b>			
	<u>Latest Year</u>	2nd <u>Latest Year</u>	3rd <u>Latest Year</u>
Taxi	0.911	0.872	0.836
All Other	0.965	0.947	0.932

- (iii) The total basic limits premium subject to experience rating is equal to the sum of the detrended annual basic limits premiums calculated according to the prior paragraph.
- (iv) If exposures have changed during the experience period, refer to the supplement to determine if an alternative rating methodology is in order.

B. Basic Limits Losses Subject to Experience Rating

The losses to be included in the rating shall be the total of the following:

- (i) Paid and outstanding losses (including allocated loss adjustment expense (ALAE)) for each year in the experience period, with the indemnity amount limited to basic limits, and with the amount of indemnity and allocated loss adjustment expense resulting from any single occurrence limited by the maximum single loss (MSL) value specified in Table C (at the end of this section) based on the total basic limits premium subject to experience rating.

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Section 1<sup>3</sup>/<sub>4</sub> Liability**4. DETERMINATION OF EXPERIENCE MODIFICATION (Continued)****B. Basic Limits Losses Subject to Experience Rating (Cont.)**

Property damage losses and ALAE from the experience period shall be adjusted to the deductible basis, if any, that applies for the policy being rated.

- (ii) Adjustment to reflect ultimate level of losses for each year in the experience period, calculated by multiplying the annual basic limits premium (from A(ii)) for the year by the adjusted expected loss ratio (AELR) and by the appropriate basic limits loss development factor (LDF). The formula for this adjustment is  $P \times \text{AELR} \times \text{LDF}$ , where
- (a) P is the annual basic limits premium for the particular year in the experience period (from A(ii)).
- (b) AELR is the adjusted expected loss ratio specified in Table C (at the end of this section) based on the total basic limits premium subject to experience rating (from A(iii)). If a risk includes more than one vehicle type, then the AELR from Table C should be the AELR for the predominant class of risk on the policy.
- (c) LDF is the appropriate CAR basic limits loss development factor from Table B, below:

<b>Liability Experience Rating Plan Factors</b>						
<b>Table B - Loss Development Factors**</b>						
	LATEST YEAR		2 <sup>ND</sup> LATEST YEAR	3 <sup>RD</sup> LATEST YEAR	FACTORS FOR IMMATURE YEARS*	
	Taxi	All Other	All Other	All Other	Taxis	All Other
Maturity (Months)	18	18	30	42	6	6
LDF	0.079	0.103	0.054	.027	0.908	0.909
Maturity (Months)	21	21	33	45	9	9
LDF	0.046	0.087	0.046	.022	0.751	0.753
Maturity (Months)	24	24	36	48	12	12
LDF	0.013	0.070	0.037	.017	0.550	0.554
Maturity (Months)	27	27	39	51	15	15
LDF	0.005	0.062	0.032	.015	0.112	0.120

\*In cases where an insured has changed carriers, the company establishing the rating may be unable to obtain current valuations of past losses from previous carriers. Therefore losses may be evaluated at less than 18 months.

\*\*Taxi Loss Development is only calculated if the evaluation period is 27 months or less.

The maturity of the losses for any year in the experience period is defined as the number of months between the latest loss valuation and the effective date of the policy to which these losses are assignable.

**4. DETERMINATION OF EXPERIENCE MODIFICATION (Continued)**

C. Actual Loss Ratio

Determine the actual loss ratio (ALR) by dividing the basic limits losses subject to experience rating (B(i) + B(ii)) by the total basic limits premium subject to experience rating (from A(iii)).

D. Credibility

The credibility for the risk is obtained from Table C, based on the total basic limits premium subject to experience rating.

E. Adjusted Expected Loss Ratio

The adjusted expected loss ratio (AELR) for the risk is obtained from Table C, (at the end of this section) based on the total basic limits premium subject to experience rating. If a risk includes more than one vehicle type, then the AELR from Table C should be the AELR for the predominant class of risk on the policy.

F. Experience Modification

$$\frac{\text{ACTUAL LOSS RATIO}}{\text{ADJUSTED EXPECTED LOSS RATIO}} \text{ minus } \frac{\text{ADJUSTED EXPECTED LOSS RATIO}}{\text{ADJUSTED EXPECTED LOSS RATIO}} \text{ times CREDIBILITY} = \text{EXPERIENCE MODIFICATION}$$

If the experience modification is negative, it is a credit; if positive, it is a debit.

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Commercial Automobile Experience Rating Plan

Section I <sup>3</sup>/<sub>4</sub> Liability

**Liability Experience Rating Plan Example**

**I. BASIC INFORMATION**

Assume the policy to be rated is effective 10/1/00 – 9/30/01, for private passenger type vehicles.

Assume the basic limits premium for BI, PIP, and PDL using CAR rates effective 10/1/00 is:

\$ 6,000

Assume the losses and ALAE for three years, evaluated as of 04/1/00, are as follows:

<u>Year</u> (1)	<u>Maturity as of 04/1/00</u> (2)	<u>Total Limits Losses</u> (3)	<u>Basic Limits Losses</u> (4)	<u>ALAE</u> (5)	<u>Basic Limits Losses &amp; ALAE (4) + (5)</u> (6)
10/1/96 -9/30/97	42	\$ 1,500 500 100,000	\$ 1,500 500 20,000	\$ 500 100 20,000	\$ 2,000 600 40,000
10/1/97 -9/30/98	30	750 250	750 250	100 50	850 300
10/1/98 -9/30/99	18	250 500 250	250 500 250	50 700 75	300 1,200 325

**II. TOTAL BASIC LIMITS PREMIUM SUBJECT TO EXPERIENCE RATING (See Rule 4A).**

<u>Year</u> (1)	<u>Annual Basic Limits Premium</u> (2)	<u>Table A Detrend Factors</u> (3)	<u>Basic Limits Premium Subject to Experience Rating</u> (4)
3rd Latest Year	\$ 6,000	0.932	\$ 5,592
2nd Latest Year	6,000	0.947	5,686
Latest Year	6,000	0.965	5,790
			<u>\$17,068</u>

From Table C, given the total basic limits premium subject to experience rating of \$17,068, the credibility is 0.21, the AELR is 0.475, and the MSL is \$8,500. (See Rules 4B, 4C, and 4D).

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**Liability Experience Rating Plan Example**

**III. BASIC LIMITS LOSSES SUBJECT TO EXPERIENCE RATING**

A. Paid and Outstanding Losses & ALAE (See Rule 4B).		
<u>Year</u> (1)	<u>Basic Limits Losses &amp; ALAE</u> (2)	<u>Basic Limits Losses &amp; ALAE Subject to MSL of \$8,500</u> (3)
10/1/96 -9/30/97	\$ 2,000 600 40,000	\$ 2,000 600 8,500
10/1/97 -9/30/98	850 300	850 300
10/1/98 -9/30/99	300 1,200 325	300 1,200 325
		<u>\$ 14,075</u>

B. Adjustment to Reflect the Ultimate Level of Losses (See Rule 4B).					
<u>Year</u> (1)	<u>Maturity as of 12/31/98</u> (2)	<u>Premium Subject to Experience Rating (Step II)</u> (3)	<u>AELR (Step II)</u> (4)	<u>Table B LDF</u> (5)	<u>Adjustment to Reflect Ultimate Level of Losses (3) x (4) x (5)</u> (6)
10/1/96 -9/30/97	42	\$ 5,592	0.475	0.027	\$ 72
10/1/97 -9/30/98	30	5,686	0.475	0.054	146
10/1/98 -9/30/99	18	<u>5,790</u>	0.475	0.103	<u>283</u>
		\$ 17,068			\$ 501

**IV. EXPERIENCE MODIFICATION**

Credibility (Step II)	0.21
Adjusted Expected Loss Ratio (Step II)	0.475
B/L Losses Subject to Experience Rating (\$14,075 + \$501) (Step III)	\$14,576
Basic Limits Premium (Step II)	\$17,068
Actual Loss Ratio (\$14,576 / \$17,068)	0.854

Experience Modification =  $\frac{0.854 - 0.475}{0.475} \times 0.21 = 0.168$  (factor of 1.168) or a 16.8% debit

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Liability Experience Rating Plan Factors  
Table C - Credibility, Adjusted Expected Loss Ratios, and Maximum Single Losses

Premium Levels	Credibility	Adjusted Expected Loss Ratio			Maximum Single Loss
		Taxicabs	Zone-Rated	All Other	
1 - 1,751	0.10	0.342	0.302	0.305	3,000
1,752 - 3,033	0.11	0.369	0.327	0.330	3,500
3,034 - 4,347	0.12	0.394	0.348	0.351	4,000
4,348 - 5,695	0.13	0.416	0.368	0.371	4,500
5,696 - 7,078	0.14	0.437	0.386	0.390	5,000
7,079 - 8,498	0.15	0.453	0.400	0.404	5,500
8,499 - 9,956	0.16	0.467	0.413	0.417	6,000
9,957 - 11,454	0.17	0.482	0.426	0.430	6,500
11,455 - 12,993	0.18	0.495	0.438	0.442	7,000
12,994 - 14,576	0.19	0.508	0.449	0.453	7,500
14,577 - 16,203	0.20	0.521	0.460	0.464	8,000
16,204 - 17,877	0.21	0.533	0.471	0.475	8,500
17,878 - 19,600	0.22	0.545	0.482	0.486	9,000
19,601 - 21,375	0.23	0.556	0.492	0.496	9,500
21,376 - 23,202	0.24	0.567	0.501	0.506	10,000
23,203 - 25,086	0.25	0.578	0.511	0.515	10,500
25,087 - 27,028	0.26	0.588	0.520	0.524	11,000
27,029 - 29,031	0.27	0.597	0.528	0.533	11,500
29,032 - 31,099	0.28	0.607	0.536	0.541	12,000
31,100 - 33,234	0.29	0.616	0.544	0.549	12,500
33,235 - 35,439	0.30	0.624	0.552	0.557	13,000
35,440 - 37,719	0.31	0.633	0.559	0.564	13,500
37,720 - 40,077	0.32	0.641	0.566	0.571	14,000
40,078 - 42,517	0.33	0.648	0.573	0.578	14,500
42,518 - 45,043	0.34	0.656	0.580	0.585	15,000
45,044 - 47,661	0.35	0.663	0.586	0.591	15,500
47,662 - 50,375	0.36	0.670	0.592	0.597	16,000
50,376 - 53,190	0.37	0.676	0.598	0.603	16,500
53,191 - 56,113	0.38	0.683	0.603	0.609	17,000
56,114 - 59,150	0.39	0.689	0.609	0.614	17,500
59,151 - 62,307	0.40	0.695	0.614	0.619	18,000
62,308 - 65,592	0.41	0.700	0.619	0.625	18,500
65,593 - 69,013	0.42	0.706	0.624	0.629	19,000
69,014 - 72,578	0.43	0.711	0.629	0.634	19,500
72,579 - 76,297	0.44	0.716	0.633	0.639	20,000
76,298 - 80,179	0.45	0.721	0.638	0.643	20,500
80,180 - 84,236	0.46	0.726	0.642	0.647	21,000
84,237 - 88,481	0.47	0.730	0.646	0.651	21,500
88,482 - 92,925	0.48	0.734	0.649	0.655	22,000
92,926 - 97,584	0.49	0.738	0.653	0.658	22,500



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Liability Experience Rating Plan Factors  
Table C - Credibility, Adjusted Expected Loss Ratios, and Maximum Single Losses

Premium Levels	Credibility	Adjusted Expected Loss Ratio			Maximum Single Loss
		Taxicabs	Zone-Rated	All Other	
97,585 - 102,474	0.50	0.742	0.656	0.662	23,000
102,475 - 107,611	0.51	0.745	0.659	0.665	23,500
107,612 - 113,017	0.52	0.749	0.662	0.668	24,000
113,018 - 118,711	0.53	0.752	0.664	0.670	24,500
118,712 - 124,718	0.54	0.755	0.667	0.673	25,000
124,719 - 131,064	0.55	0.757	0.669	0.675	25,500
131,065 - 137,780	0.56	0.760	0.672	0.678	26,000
137,781 - 144,897	0.57	0.762	0.674	0.680	26,500
144,898 - 152,453	0.58	0.764	0.676	0.681	27,000
152,454 - 160,491	0.59	0.766	0.677	0.683	27,500
160,492 - 169,057	0.60	0.768	0.679	0.685	28,000
169,058 - 178,206	0.61	0.770	0.680	0.687	28,500
178,207 - 187,999	0.62	0.771	0.682	0.688	29,000
188,000 - 198,506	0.63	0.773	0.683	0.689	29,500
198,507 - 209,810	0.64	0.774	0.685	0.691	30,000
209,811 - 222,003	0.65	0.776	0.686	0.692	30,500
222,004 - 235,195	0.66	0.777	0.687	0.693	31,000
235,196 - 249,514	0.67	0.779	0.688	0.694	31,500
249,515 - 265,111	0.68	0.780	0.689	0.696	32,000
265,112 - 282,165	0.69	0.781	0.690	0.697	32,500
282,166 - 300,890	0.70	0.782	0.691	0.698	33,000
300,891 - 321,545	0.71	0.783	0.692	0.699	33,500
321,546 - 344,443	0.72	0.784	0.693	0.699	34,000
344,444 - 369,973	0.73	0.785	0.694	0.700	34,500
369,974 - 398,614	0.74	0.786	0.695	0.701	35,000
398,615 - 430,972	0.75	0.787	0.696	0.702	35,500
430,973 - 467,822	0.76	0.788	0.697	0.703	36,000
467,823 - 510,168	0.77	0.789	0.697	0.703	36,500
510,169 - 559,340	0.78	0.790	0.698	0.704	37,000
559,341 - 617,130	0.79	0.790	0.699	0.705	37,500
617,131 - 686,025	0.80	0.791	0.699	0.706	38,000
686,026 - 769,564	0.81	0.792	0.700	0.706	38,500
769,565 - 872,972	0.82	0.792	0.701	0.707	39,000
872,973 - 1,004,293	0.83	0.793	0.701	0.707	39,500
1,004,294 - 1,176,595	0.84	0.794	0.702	0.708	40,000
1,176,596 - 1,412,604	0.85	0.794	0.702	0.709	40,500
1,412,605 - 1,755,669	0.86	0.795	0.703	0.709	41,000
1,755,670 - 2,299,999	0.87	0.796	0.703	0.710	41,500
2,300,000 - 3,296,225	0.88	0.796	0.704	0.710	42,000
3,296,226 - 5,706,451	0.89	0.797	0.704	0.710	42,500
5,706,452 And Over	0.90	0.797	0.705	0.711	43,000

**1. ELIGIBILITY**

The term "risk" as used in this plan means the exposures of any one insured which are to be rated. Allied or subsidiary interests shall not be included unless:

- (1) The insured holds a majority financial interest therein, or
- (2) The following conditions exist under an exclusive franchise arrangement between the franchise grantor and the other interests to be rated:
  - (a) all interests operate under a common trade name, and
  - (b) all interests use one or more identical products or services obtained through the franchise grantor, and
  - (c) one source establishes and maintains standards regarding management control and is responsible for insurance premium payment for all interests operating under the exclusive franchise, and
  - (d) there is no legal prohibition against ownership by the franchise grantor of the operations of the other interests to be rated.

Expenses are not taken into consideration in the parameters of this rating plan.

Any risk meeting the following qualifications for the Fire, Theft, CAC, Comprehensive, Collision, Limited Collision, Garagekeepers Legal Liability and Dealers Physical Damage exposure to be rated shall be eligible for the application of this plan:

- (a) Five or more owned or hired automobiles (including trailers and semitrailers) which develop an annual premium of at least \$1,500, or
- (b) If a garage, an annual manual premium of at least \$1,500, or
- (c) Any taxicab or public livery risk which develops an annual premium of at least \$1,000 irrespective of the number of vehicles comprising the risk.

**EXCEPTION**

Where five or more bodies are under one ownership and the chassis are under other ownership, such a risk shall be eligible for rating either for the bodies only or for the bodies and the chassis regardless of the ownership of the chassis.

Where the bodies only of such a risk are to be rated the number of bodies shall be used to determine eligibility.

Where both the chassis and the bodies are to be rated, a chassis and body shall be considered one complete unit and the bodies in excess thereof shall be used in addition to the number of complete units for determining eligibility.

Commercial Automobile Experience Rating Plan

Section II ~~3~~ 4 Physical Damage

**2. EXPERIENCE MODIFICATION**

The experience modification for the risk shall be determined in accordance with the experience rating procedure described herein, and shall be applied to current manual premium for the Fire, Theft, CAC, Comprehensive, Collision and Limited Collision coverages and deductibles included in the policy being rated.

**3. EXPERIENCE USED**

The experience modification shall be determined, by the company establishing the rating, from the latest available three completed policy years of experience incurred in this state or in all states by the risk. In the event the experience for the full experience period is not available, at least two completed policy years shall be used. Risks with less than two completed policy years of experience shall not be experience rated. The experience period shall end at least six months prior to the rating date.

Experience developed by companies other than the company establishing the modification or self-insured experience may be used subject to the periods specified above. If the risk has been self-insured or insured with a company from which the experience is not obtainable, the experience may be used if submitted to the company in the form of a statement signed by the insured. Experience in such form may be excluded from the rating if its reliability cannot be established.

**4. DETERMINATION OF EXPERIENCE MODIFICATION**

The experience modification shall be determined by application of the following procedure:

A. Total Premium Subject to Experience Rating

The premiums to be included in the rating are calculated as follows:

- (i) Determine the current annual premium for the policy being rated using CAR's current manual rates. The policy being rated is the policy to which the experience modification of Rule 4F shall apply.
- (ii) The annual premium for each year of the experience period is the annual premium determined according to A(i) above, multiplied by the appropriate detrend factor from Table A.

<b>Physical Damage Experience Rating Plan Factors</b>		
<b>Table A - Premium Detrend Factors</b>		
<u>Latest Year</u>	2nd <u>Latest Year</u>	3rd <u>Latest Year</u>
0.935	0.906	0.878

- (iii) The total premium subject to experience rating is equal to the sum of the detrended annual premiums calculated according to the prior paragraph.
- (iv) If exposures have changed during the experience period, refer to the supplement to determine if an alternative rating methodology is in order.

Commercial Automobile Experience Rating Plan

Section II ~~3~~4 Physical Damage

**4. DETERMINATION OF EXPERIENCE MODIFICATION (Continued)**

B. Losses Subject to Experience Rating

The losses to be included in the rating shall be the total of the following:

- (i) Paid and outstanding losses (excluding allocated loss adjustment expense (ALAE)) for each year in the experience period, with the amount of indemnity resulting from any single occurrence limited by the maximum single loss (MSL) value specified in Table C (at the end of this section) based on the total premium subject to experience rating. All losses from the experience period shall be adjusted to the deductible basis of the policy being rated.
- (ii) In cases where an insured has changed carriers, the company establishing the rating may be unable to obtain current valuations of past losses from previous carriers. Therefore losses may be evaluated at less than 18 months.

In these cases, an adjustment to reflect ultimate level of losses for each year in the experience period is needed. This adjustment is calculated by multiplying the annual premium (from A(ii)) for the year by the adjusted expected loss ratio (AELR) and by the appropriate loss development factor (LDF). The formula for this adjustment is  $P \times AELR \times LDF$ , where

- (a) P is the annual premium for the particular year in the experience period (from A(ii)).
- (b) AELR is the adjusted expected loss ratio specified in Table C (at the end of this section) based on the total premium subject to experience rating (from A(iii)). If a risk includes more than one vehicle type, then the AELR from Table C should be the AELR for the predominant class of risk on the policy.
- (c) LDF is the appropriate CAR basic limits loss development factor for Table B, below:

<b>Physical Damage Experience Rating Plan Factors</b>	
<b>Table B - Loss Development Factors</b>	
	Factors for <u>Immature Years</u>
Maturity (Months)	6
LDF	0.830
Maturity (Months)	9
LDF	0.582
Maturity (Months)	12
LDF	0.267
Maturity (Months)	15
LDF	0.000

The maturity of the losses for any year in the experience period is defined as the number of months between the latest loss valuation and the effective date of the policy to which these losses are assignable.

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Section II ~~3~~ 4 Physical Damage

**4. DETERMINATION OF EXPERIENCE MODIFICATION (Continued)**

C. Actual Loss Ratio

Determine the actual loss ratio (ALR) by dividing the losses subject to experience rating (from B(i) + B(ii)) by the total premium subject to experience rating (from A(iii)).

D. Credibility

The credibility for the risk is obtained from Table C, based on the total premium subject to experience rating.

E. Adjusted Expected Loss Ratio

The adjusted expected loss ratio (AELR) for the risk is obtained from Table C, (at the end of this section) based on the total premium subject to experience rating. If a risk includes more than one vehicle type, then the AELR from Table C should be the AELR for the predominant class of risk on the policy.

F. Experience Modification

$$\frac{\text{ACTUAL LOSS RATIO}}{\text{ADJUSTED EXPECTED LOSS RATIO}} \text{ minus } \frac{\text{ADJUSTED EXPECTED LOSS RATIO}}{\text{ADJUSTED EXPECTED LOSS RATIO}} \text{ times CREDIBILITY} = \text{EXPERIENCE MODIFICATION}$$

If the experience modification is negative, it is a credit; if positive, it is a debit.

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Section II ~~3~~4 Physical Damage

**Physical Damage Experience Rating Plan Example**

**I. BASIC INFORMATION**

Assume the policy to be rated is effective 10/1/00 - 9/30/01, for private passenger type vehicles.

Assume the basic limits premium for OTC and Collision using CAR rates effective 10/1/00 is:

\$ 7,000

Assume the losses for three years, evaluated as of 12/31/96, are as follows:		
<u>Year</u> (1)	Maturity as of <u>12/31/96</u> (2)	<u>Losses</u> (3)
10/1/96 -9/30/97	42	\$ 200 500 300
10/1/97 -9/30/98	30	750 5,150
10/1/98 -9/30/99	18	300 500 250

**II. TOTAL PREMIUM SUBJECT TO EXPERIENCE RATING (See Rule 4A).**

<u>Year</u> (1)	<u>Annual Basic Limits Premium</u> (2)	<u>Table A Detrend Factors</u> (3)	<u>Basic Limits Premium Subject to Experience Rating</u> (4)
3rd Latest Year	\$ 7,000	0.878	\$ 6,146
2nd Latest Year	7,000	0.906	6,342
Latest Year	7,000	0.935	<u>6,545</u>
			\$ 19,033

From Table C, given the total basic limits premium subject to experience rating of \$19,033, the credibility is 0.32, the AELR is 0.590, and the MSL is \$7,000. (See Rules 4B, 4C, and 4D).

Commonwealth Automobile Reinsurers

Commercial Automobile Experience Rating Plan

Section II ~~3~~ 4 Physical Damage

**Physical Damage Experience Rating Plan Example**

**III. LOSSES SUBJECT TO EXPERIENCE RATING (See Rule 4B).**

A. Paid and Outstanding Losses		
<u>Year</u> (1)	<u>Losses</u> (2)	<u>Losses</u> <u>Subject to MSL</u> <u>of \$7,000</u> (3)
10/1/96 -9/30/97	\$ 200 500 300	\$ 200 500 300
10/1/97 -9/30/98	750 5,150	750 5,150
10/1/98 -9/30/99	300 500 250	300 500 <u>250</u>
		\$ 7,950

**IV. EXPERIENCE MODIFICATION**

Credibility (Step II)	0.32
Adjusted Expected Loss Ratio (Step II)	0.590
Losses Subject to Experience Rating (Step III)	\$ 7,950
Premium Subject to Experience Rating (Step II)	\$19,033
Actual Loss Ratio (\$7,950 / \$19,033)	0.418

Experience Modification =  $\frac{0.418 - 0.590}{0.590} \times 0.32 = 0.093$  (factor of 0.907) or a 9.3% credit.

**Commonwealth Automobile Reinsurers  
Commercial Automobile Experience Rating Plan**

Physical Damage Experience Rating Plan Factors  
Table C - Credibility, Adjusted Expected Loss Ratios, and Maximum Single Losses

Premium Levels	Credibility	Adjusted Expected Loss Ratio		Maximum Single Loss
		Zone-Rated	All Other	
1 - 875	0.10	0.370	0.369	1,500
876 - 1,516	0.11	0.393	0.391	1,750
1,517 - 2,173	0.12	0.413	0.411	2,000
2,174 - 2,847	0.13	0.431	0.429	2,250
2,848 - 3,539	0.14	0.448	0.446	2,500
3,540 - 4,249	0.15	0.462	0.460	2,750
4,250 - 4,978	0.16	0.476	0.474	3,000
4,979 - 5,727	0.17	0.488	0.486	3,250
5,728 - 6,496	0.18	0.499	0.497	3,500
6,497 - 7,287	0.19	0.509	0.507	3,750
7,288 - 8,101	0.20	0.519	0.517	4,000
8,102 - 8,938	0.21	0.528	0.525	4,250
8,939 - 9,800	0.22	0.536	0.533	4,500
9,801 - 10,687	0.23	0.543	0.541	4,750
10,688 - 11,601	0.24	0.550	0.548	5,000
11,602 - 12,542	0.25	0.557	0.554	5,250
12,543 - 13,514	0.26	0.563	0.560	5,500
13,515 - 14,515	0.27	0.569	0.566	5,750
14,516 - 15,549	0.28	0.574	0.571	6,000
15,550 - 16,616	0.29	0.579	0.576	6,250
16,617 - 17,719	0.30	0.584	0.581	6,500
17,720 - 18,859	0.31	0.588	0.585	6,750
18,860 - 20,038	0.32	0.592	0.590	7,000
20,039 - 21,258	0.33	0.596	0.594	7,250
21,259 - 22,521	0.34	0.600	0.597	7,500
22,522 - 23,830	0.35	0.604	0.601	7,750
23,831 - 25,187	0.36	0.607	0.604	8,000
25,188 - 26,595	0.37	0.611	0.608	8,250
26,596 - 28,056	0.38	0.614	0.611	8,500
28,057 - 29,575	0.39	0.617	0.614	8,750
29,576 - 31,153	0.40	0.620	0.617	9,000
31,154 - 32,796	0.41	0.622	0.619	9,250
32,797 - 34,506	0.42	0.625	0.622	9,500
34,507 - 36,289	0.43	0.627	0.625	9,750
36,290 - 38,148	0.44	0.630	0.627	10,000
38,149 - 40,089	0.45	0.632	0.629	10,250
40,090 - 42,118	0.46	0.634	0.631	10,500
42,119 - 44,240	0.47	0.636	0.634	10,750
44,241 - 46,462	0.48	0.638	0.635	11,000
46,463 - 48,792	0.49	0.640	0.637	11,250



**Commonwealth Automobile Reinsurers  
Commercial Automobile Experience Rating Plan**

Physical Damage Experience Rating Plan Factors  
Table C - Credibility, Adjusted Expected Loss Ratios, and Maximum Single Losses

48,793 -	51,236	0.50	0.642	0.639	11,500
51,237 -	53,805	0.51	0.644	0.641	11,750
53,806 -	56,508	0.52	0.645	0.643	12,000
56,509 -	59,355	0.53	0.647	0.644	12,250
59,356 -	62,359	0.54	0.649	0.646	12,500
62,360 -	65,532	0.55	0.650	0.647	12,750
65,533 -	68,889	0.56	0.651	0.648	13,000
68,890 -	72,448	0.57	0.653	0.650	13,250
72,449 -	76,226	0.58	0.654	0.651	13,500
76,227 -	80,245	0.59	0.655	0.652	13,750
80,246 -	84,528	0.60	0.656	0.653	14,000
84,529 -	89,103	0.61	0.658	0.655	14,250
89,104 -	93,999	0.62	0.659	0.656	14,500
94,000 -	99,253	0.63	0.660	0.657	14,750
99,254 -	104,904	0.64	0.661	0.658	15,000
104,905 -	111,001	0.65	0.662	0.659	15,250
111,002 -	117,597	0.66	0.662	0.659	15,500
117,598 -	124,756	0.67	0.663	0.660	15,750
124,757 -	132,555	0.68	0.664	0.661	16,000
132,556 -	141,082	0.69	0.665	0.662	16,250
141,083 -	150,444	0.70	0.666	0.663	16,500
150,445 -	160,772	0.71	0.666	0.663	16,750
160,773 -	172,221	0.72	0.667	0.664	17,000
172,222 -	184,986	0.73	0.668	0.665	17,250
184,987 -	199,307	0.74	0.668	0.665	17,500
199,308 -	215,486	0.75	0.669	0.666	17,750
215,487 -	233,911	0.76	0.670	0.667	18,000
233,912 -	255,084	0.77	0.670	0.667	18,250
255,085 -	279,669	0.78	0.671	0.668	18,500
279,670 -	308,565	0.79	0.671	0.668	18,750
308,566 -	343,012	0.80	0.672	0.669	19,000
343,013 -	384,782	0.81	0.672	0.669	19,250
384,783 -	436,486	0.82	0.673	0.670	19,500
436,487 -	502,146	0.83	0.673	0.670	19,750
502,147 -	588,297	0.84	0.674	0.671	20,000
588,298 -	706,302	0.85	0.674	0.671	20,250
706,303 -	877,834	0.86	0.674	0.671	20,500
877,835 -	1,149,999	0.87	0.675	0.672	20,750
1,150,000 -	1,648,112	0.88	0.675	0.672	21,000
1,648,113 -	2,853,225	0.89	0.676	0.673	21,250
2,853,226	And Over	0.90	0.676	0.673	21,500

**APPENDIX A**

Applicable to Section I Liability and Section II Physical Damage

If the actual exposures of the risk have been subject to a twenty-five percent change since the experience period apply the following advisory procedure to determine the basic limits premium subject to experience rating. The twenty-five percent differential shall be determined by averaging the actual exposures from the experience period, and comparing the resulting average exposures to the current exposures. An example of this calculation follows:

**Current Exposure = 25**Experience Period

3rd Prior Year = 35

2nd Prior Year = 35

1st Prior Year = 33

Average Exposure = 34.33  $(25 - 34.33) / 34.33 = 27.18\%$  change in exposure

**Historical Exposures at Present CAR Rates Method**Procedure:

Determine the actual historical exposures on the present rating basis by classification and garaging for each policy of the experience period.

The actual exposures by classification and garaging for a given year of the experience period, when multiplied by the present basic limits CAR rates and then multiplied by the appropriate detrend factor from Table A, yields the annual basic limits CAR premium for that year of the experience period.

The Servicing Carrier shall determine the applicability of this rating procedure based upon the credibility of the documentation supplied in support of the change in exposure level.

If the historical exposure information is not obtainable from the company insuring the risk during the experience period, historical information may be obtained in the form of a signed statement from the insured. Exposure information submitted in such form may be excluded from the rating if its reliability can not be established.

The application of these rules is mandatory for all insureds meeting the eligibility requirements as contained in Sections I and II of this plan. Any action taken in any form to evade the application of an experience modification determined in accordance with this plan is prohibited.

**A. DEFINITIONS**

Entity

The term "entity" shall mean an individual, partnership, corporation, unincorporated association or fiduciary (e.g., trustee, receiver, executor or administrator).

Risk

The term "risk" for the purpose of this Supplementary Rule shall mean:

1. A single entity.
2. Two or more entities which must be combined under the provisions of the plan regardless of whether insurance is or has been provided by one or more policies or insurance carriers.

Majority Interest

"Majority" shall mean more than 50% ownership or other property interest.

If an entity other than a partnership

1. has issued voting stock, majority interest shall mean a majority of the issued voting stock;
2. has not issued voting stock, majority interest shall mean a majority of its members;
3. has not issued voting stock and has no members, majority interest shall mean a majority of the board of directors or comparable governing body.

If an entity is a partnership, majority interest shall be determined in accordance with the participation of each general partner in the profits of the partnership.

Ownership Interest

1. Ownership interest of any corporation shall be determined on the basis of the ownership of the issued voting stock of any such corporation.
2. If there is no issued voting stock, ownership interest shall be determined on the basis of its members if the entity is other than a partnership.

**A. DEFINITIONS (Continued)**

Ownership Interest (Cont.)

3. If there is neither issued voting stock nor members, ownership interest shall be determined on the basis of the membership of the board of directors or comparable governing body if the entity is other than a partnership.
4. Ownership interest of any partnership shall be determined in accordance with the participation of each general partner in the profits of the partnership.
5. Ownership interest shall be deemed to be vested in a fiduciary when a fiduciary is involved. However, "fiduciary" shall not include a debtor in possession, a trustee under a revocable trust or a franchisor. Ownership interest held by an entity in a fiduciary capacity and ownership interest held by the same entity in a non-fiduciary capacity shall be deemed to be ownership interest of the same entity.

**B. COMBINATION OF ENTITIES**

1. Two or more entities shall be combined for rating purposes if the same person, or group of persons, or corporation owns a majority interest in each such entity.
2. If an entity owns a majority interest in another entity which in turn owns the majority interest in another entity, all entities so related shall be combined regardless of the number of entities in succession.

In those instances where two or more different combinations are possible, the combination involving the greatest number of entities shall be made. The experience of any entity used in such a combination shall not otherwise be used in combination with the experience of any other entity.

**C. MERGER OR CONSOLIDATION**

Merger

If two or more entities are merged so that the ownership interest of all such entities are combined in the surviving entity, the incurred experience of all such merged entities shall be used for experience rating the surviving entity.

Consolidation

If two or more entities are consolidated by replacing them with a new entity combining the ownership interest of the prior entities, the incurred experience of all such consolidated entities shall be used for experience rating the new entity.

**D. CHANGE OF OWNERSHIP, CONTROL, MANAGEMENT, NAME OR OPERATIONS**

For purposes of this plan a change in ownership includes any of the following:

- (1) Sale, transfer or conveyance of an entity's ownership interest.
- (2) Sale, transfer or conveyance of an entity's physical assets to another entity which takes over its operations.
- (3) Merger or consolidation of two or more entities.
- (4) Formation of a new entity subsequent to the dissolution or non-operative capacity of an entity.
- (5) Voluntary or court mandated establishment of a trustee or receiver, excluding a debtor in possession, a trustee under a revocable trust, or a franchisor.

1. Continuation of Experience

Unless excluded under D.3., the experience for any entity undergoing a change of ownership shall be transferred to the experience ratings of the acquiring, surviving or new entity.

**EXCEPTION**

If an entity disposes of part of its operations, but otherwise continues to operate its business, or if a multiple entity risk disposes of one or more entities whose statistical data has been combined on a single policy, the experience shall continue to be used in future experience ratings of the seller unless the rating company is furnished with the appropriate experience to provide for transfer of the data to the acquiring entity.

2. Recalculated Experience Modification Due to a Change in Ownership

- a. Unless excluded under the provisions of D.3., the experience of an entity undergoing a change of ownership shall be retained in future ratings in accordance with the following procedure:
  - (1) The experience modification of the new owner shall be revised to include the past experience of the acquired entity subject to Rule 3 of Sections I and II Experience Used.
  - (2) If the new owner is not experience rated, an experience modification shall be calculated utilizing the experience of the acquired entity together with any applicable existing experience.
  - (3) If based on its ownership in other entities, the previous owner continues to be experience rated after the change in ownership, its experience modification shall be revised to exclude all experience of the relinquished entity.
- b. Experience modifications in accordance with a(1), a(2), and a(3) above shall be calculated and applied as follows:
  - (1) If the first written reporting of the ownership change by either the acquiring entity or the acquired entity to their carrier occurs within 90 days of the date of the change, the calculation of the revised modification shall be as of the date of the change.
  - (2) If the first written reporting of such change occurs more than 90 days after the date of the change, the calculation of the revised modification shall be as of the next anniversary rating date following the earliest notice either carrier received of the change.

**D. CHANGE OF OWNERSHIP, CONTROL, MANAGEMENT, NAME OR OPERATIONS (Continued)**

3. Exclusion of Experience

- A. In the event of a change in ownership, if after such change, the new owner is a taxi risk with two or less vehicles, the experience of the prior owner shall not be included in the calculation of future experience ratings. In the event, however, the new owner subsequently becomes a taxi risk with three or more vehicles, the experience of the prior owner shall prospectively be considered for experience rating purposes subject to the other provisions of this paragraph 3.
- B. In all other instances, the experience of any other entity undergoing a change of ownership shall be excluded from future experience rating calculations only if each of the following conditions a, b, and c are met.
  - a. The change must be a material change such that the:
    - (1) entire ownership interest after the change had no ownership interest before the change, or
    - (2) the collective ownership of all those having an interest in an entity both before the change and after the change amounts to either less than 1/3 ownership before the change or less than 1/2 ownership after the change.
  - b. The material change in ownership is accompanied by a change in operations sufficient to result in reclassification of the governing classification.
  - c. The material change in ownership is accompanied by a change in the process and hazard of the operations.
  - d. If the experience of an entity is to be excluded, the experience modification no longer applies as of the date of the change. An experience modification of 1.00 (unity) shall apply effective the date of the change, unless acquired by an entity with an existing experience modification.

4. Self-Insured or Discontinued Operations

The experience rating of a risk shall retain all experience for any part of its operations which may have been discontinued or self-insured.

5. Notification Requirement

When an ownership change occurs the insured shall report the details of such change to its carrier. This may be done by submitting the details of the change in narrative form on the letterhead of the insured, signed by an officer of the company.

The carrier will determine the type of change and combinability of the entities involved.

6. Due inquiry should be made into all cases of purported change of ownership raising reasonable doubt as to the validity and good faith of the transfer. The insurance carrier may require the transferee to pay a premium based upon the experience modification applicable to the transferor or the manual rate, whichever is higher, pending investigation of the facts of the case and subject to later adjustment if appropriate. A proper period for investigation of the facts shall be allowed in all cases of doubt about the validity of a purported change of ownership.

**Commonwealth Automobile Reinsurers**

**Commercial Automobile Experience Rating Plan**

**Section III <sup>3</sup>/<sub>4</sub> Supplementary Rules**