



NATALIE A. HUBLEY
PRESIDENT

COMMONWEALTH AUTOMOBILE REINSURERS

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617-338-4000

NOTICE OF MEETING

ACTUARIAL COMMITTEE

A meeting of the Actuarial Committee will be held at the Automobile Insurers Bureau Conference Center at 101 Arch Street, 7th Floor, Boston, on

WEDNESDAY, OCTOBER 11, 2017 AT 1:00 P.M.

MEMBERS OF THE COMMITTEE

Ms. Lynellen Ramirez – Chair
Arbella Insurance Group

Mr. Geoffrey Arnold
Mr. Alex Butensky
Ms. Sarah Clemens
Mr. Joseph Cofield
Mr. Hall Crowder
Mr. Christopher Dupill
Mr. Glenn Hiltbold
Mr. Adam Kreuser
Mr. Todd Lehmann
Ms. Meredith Woodcock

Plymouth Rock Assurance Corporation
The Norfolk & Dedham Group
MAPFRE U.S.A. Corporation
Metropolitan P & C Insurance Company
Allstate Insurance Company
EM Freedman Insurance Agency, Inc.
Safety Insurance Company
The Hanover Insurance Company
Quincy Mutual Group
Liberty Mutual Group

AGENDA

AC

17.01 Records of Previous Meeting

The Records of the Actuarial Committee meeting of September 13, 2017 should be read and approved.

AC

17.03 CAR Conflict of Interest Policy

The Chair will read a statement relative to CAR's Conflict of Interest Policy.

AC

17.04 Quota Share Credits for Policies Effective April 1, 2018 and Later

At its September 13, 2017 meeting, the Committee continued discussions relative to the April 1, 2018 Credit Offer, resulting in three credit approaches that the Committee has interest in pursuing: the Indexed Market Share Group Range Methodology, a proposal by Safety Insurance Company to add a Merit Rating component to the “indexed” relative credit range model, and the option to retain the current credit factors. The Safety proposal will be distributed as additional information prior to the meeting. (Docket #AC17.04, Exhibit #12)

The Committee should be prepared to review these exhibits and to continue discussions relative to quota share credits for policies effective April 1, 2018 and later in order to formulate its recommendation to the Governing Committee at its November 15, 2017 meeting.

AC

17.05 Rule 21.D. Constraints on Placement of Clean-in-Three Risks through the MAIP

Last year, the Governing Committee extended the restriction on the non-renewal of Clean-in-Three Risks for another year, and directed CAR staff to assist the remaining producers without a voluntary contract or brokerage agreement in finding a voluntary market over the next year. Participating producers provided business plans to assist insurance companies to better evaluate them for a potential voluntary contract relationship. Staff will provide a final update on feedback from companies related to this effort.

Other Business

To transact any other business that may properly come before this Committee.

Executive Session

The Actuarial Committee may convene in Executive Session in accordance with the provisions of G.L. c. 30A, § 21.

TIMOTHY GALLIGAN
Actuarial/Statistical Services Director

Attachment

Boston, Massachusetts
September 28, 2017

Commonwealth Automobile Reinsurers
4/1/2018 Credit Offer - Data Through July, 2017 (2016 Rates)
Summary by Territory

4/1/2017 Credit Factors

4/1/18 Indicated - Indexed Ranges By Year

<u>Territory</u>	<u>Total Mkt Exposures</u>	<u>Credit Eligible Exposures</u>	<u>Potential Credit Premium</u>	<u>Credit Eligible Exposures</u>	<u>%Δ</u>	<u>Potential Credit Premium</u>	<u>%Δ</u>
1	185,319	0	0	813	0.0%	1,753,185	0.0%
2	248,415	1,165	2,690,493	1,165	0.0%	2,690,493	0.0%
3	534,878	2,702	6,597,271	2,702	0.0%	6,597,271	0.0%
4	339,106	1,562	4,298,795	1,562	0.0%	4,298,795	0.0%
5	523,109	3,584	9,207,476	3,584	0.0%	9,207,476	0.0%
6	349,739	1,862	5,322,978	1,862	0.0%	5,322,978	0.0%
7	359,733	15,067	27,399,460	15,975	6.0%	29,124,934	6.3%
8	204,572	7,893	15,353,787	7,893	0.0%	15,353,787	0.0%
9	205,540	10,161	21,009,052	10,161	0.0%	21,009,052	0.0%
10	98,801	4,654	9,497,495	4,359	-6.3%	8,805,414	-7.3%
11	74,038	647	2,291,976	647	0.0%	2,291,976	0.0%
12	199,367	8,331	19,338,841	14,514	74.2%	22,673,936	17.2%
13	219,803	20,301	33,573,421	23,482	15.7%	43,542,252	29.7%
14	75,266	7,578	17,476,927	62,812	728.8%	103,753,775	493.7%
15	26,924	2,909	6,690,375	3,235	11.2%	7,648,223	14.3%
16*	14,717	13,211	22,634,227	13,211	0.0%	22,986,384	1.6%
17	17,635	509	1,206,947	821	61.3%	1,299,860	7.7%
18	16,498	14,018	23,063,822	13,841	-1.3%	22,737,181	-1.4%
19	16,017	605	1,673,567	935	54.5%	2,234,374	33.5%
20*	18,871	15,387	28,065,765	18,712	21.6%	32,289,650	15.0%
21*	49,769	48,631	105,377,206	49,560	1.9%	111,836,658	6.1%
22*	16,157	16,157	37,462,891	15,994	-1.0%	39,029,051	4.2%
23	46,280	3,108	8,517,019	3,008	-3.2%	7,226,005	-15.2%
24	25,521	1,292	2,819,050	1,645	27.3%	4,261,788	51.2%
25	17,442	621	1,912,851	885	42.4%	2,307,563	20.6%
26*	22,590	1,808	4,910,143	1,783	-1.4%	4,396,449	-10.5%
27	424,254	1,921	3,734,248	1,921	0.0%	3,734,248	0.0%
40*	21,645	17,437	25,385,771	1,993	-88.6%	4,181,993	-83.5%
41*	61,744	52,712	66,976,782	6,919	-86.9%	13,746,529	-79.5%
42*	78,542	63,538	116,032,781	7,574	-88.1%	19,308,519	-83.4%
43*	49,776	41,691	76,852,503	5,841	-86.0%	16,412,282	-78.6%
44*	37,297	33,144	48,142,046	33,378	0.7%	48,462,494	0.7%
45*	53,004	44,455	97,741,048	44,925	1.1%	103,564,204	6.0%
99	11,246	0	0	0	0.0%	0	0.0%
Total	4,643,616	458,661	853,257,012	377,709	-17.6%	744,088,779	-12.8%

% of Total Mkt. Exp.

9.9%

8.1%

***Summary for Key Territories cited by the Division of Insurance**

Total	424,113	348,171	629,581,162	199,889	-42.6%	416,214,213	-33.9%
% of Total Mkt. Exp.		82.1%		47.1%			

Indexed Market Share Group Ranges by Year

Base Year			>	≤	Credits	
	2011	0	0.00	0.05	0.00	0
		1	0.05	0.08	1.00	1
MAIP:	2.58%	2	0.08	0.11	1.00	2
Relativity:	1.00	3	0.11	0.17	1.00	3
		4	0.17	0.23	1.25	4
		5	0.23	0.29	1.50	5
		6	0.29	0.35	1.75	6
		7	0.35	0.41	2.00	7
		8	0.41	0.47	2.25	8
		9	0.47	1.00	2.50	9

			>	≤	Credits	
	2015	0	0.000	0.026	0.00	0
		1	0.026	0.041	1.00	1
MAIP:	1.32%	2	0.041	0.056	1.00	2
Relativity:	0.51	3	0.056	0.087	1.00	3
		4	0.087	0.117	1.25	4
		5	0.117	0.148	1.50	5
		6	0.148	0.179	1.75	6
		7	0.179	0.209	2.00	7
		8	0.209	0.240	2.25	8
		9	0.240	1.000	2.50	9

			>	≤	Credits	
	2016	0	0.000	0.026	0.00	0
		1	0.026	0.042	1.00	1
MAIP:	1.35%	2	0.042	0.057	1.00	2
Relativity:	0.52	3	0.057	0.088	1.00	3
		4	0.088	0.120	1.25	4
		5	0.120	0.151	1.50	5
		6	0.151	0.182	1.75	6
		7	0.182	0.213	2.00	7
		8	0.213	0.244	2.25	8
		9	0.244	1.000	2.50	9

			>	≤	Credits	
	2017	0	0.000	0.027	0.00	0
		1	0.027	0.042	1.00	1
MAIP:	1.38%	2	0.042	0.058	1.00	2
Relativity:	0.53	3	0.058	0.090	1.00	3
		4	0.090	0.122	1.25	4
		5	0.122	0.154	1.50	5
		6	0.154	0.186	1.75	6
		7	0.186	0.217	2.00	7
		8	0.217	0.249	2.25	8
		9	0.249	1.000	2.50	9

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	0.72%	0.74%	0.75%	0	0	0	0	-	-	-	0	0.00	
2	0.75%	0.77%	0.78%	0	0	0	0	-	-	-	1	1.00	
3	0.80%	0.79%	0.85%	0	0	0	0	-	-	-	2	1.00	
4	0.78%	0.70%	0.76%	0	0	0	0	-	-	-	3	1.00	
5	1.05%	1.07%	1.15%	0	0	0	0	-	-	-	4	1.25	
6	1.11%	1.08%	1.10%	0	0	0	0	-	-	-	5	1.50	
7	1.37%	1.45%	1.50%	0	0	0	0	-	-	-	6	1.75	
8	1.28%	1.30%	1.35%	0	0	0	0	-	-	-	7	2.00	
9	1.44%	1.57%	1.64%	0	0	0	0	-	-	-	8	2.25	
10	1.69%	1.60%	1.61%	0	0	0	0	-	-	-	9	2.50	
11	1.19%	1.27%	1.28%	0	0	0	0	-	-	-			
12	1.56%	1.55%	1.57%	0	0	0	0	-	-	-			
13	2.39%	2.54%	2.68%	0	0	0	0	-	-	-			
14	2.25%	2.60%	2.86%	0	1	1	1	1.00	-	1.00			
15	2.13%	2.45%	2.80%	0	0	1	0	-	-	-			
16	3.51%	3.63%	3.50%	1	1	1	1	1.00	1.00	-			
17	1.73%	1.66%	1.62%	0	0	0	0	-	-	-			
18	3.61%	3.78%	3.26%	1	1	1	1	1.00	1.00	-			
19	2.51%	2.49%	2.36%	0	0	0	0	-	-	-			
20	4.65%	4.97%	4.96%	2	2	2	2	1.00	1.00	-	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	5.13%	5.41%	5.91%	2	2	3	2	1.00	1.00	-			
22	5.76%	6.46%	7.48%	3	3	3	3	1.00	1.00	-	2018	356,854,737	209,102
23	1.70%	1.58%	1.61%	0	0	0	0	-	-	-			
24	1.34%	1.34%	1.28%	0	0	0	0	-	-	-	2017	504,679,901	307,336
25	1.19%	1.29%	1.39%	0	0	0	0	-	-	-			
26	2.11%	2.18%	2.28%	0	0	0	0	-	-	-	<u>Difference:</u>	<u>Difference:</u>	
27	0.60%	0.57%	0.60%	0	0	0	0	-	-	-			
40	2.60%	2.10%	2.45%	1	0	0	0	-	1.00	(1.00)	(147,825,165)	(98,233)	
41	2.48%	2.49%	2.60%	0	0	0	0	-	1.00	(1.00)			
42	2.60%	2.11%	2.00%	1	0	0	0	-	1.00	(1.00)	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	2.40%	2.53%	2.58%	0	0	0	0	-	1.00	(1.00)			
44	4.36%	4.65%	4.70%	2	2	2	2	1.00	1.00	-	-29.3%	-32.0%	
45	2.73%	3.74%	4.09%	1	1	1	1	1.00	1.00	-			
99	0.60%	0.53%	0.56%	0	0	0	0	-	-	-			
Tot	1.37%	1.40%	1.47%										

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	0.28%	0.27%	0.24%	0	0	0	0	-	-	-	0	0.00	
2	0.28%	0.26%	0.26%	0	0	0	0	-	-	-	1	1.00	
3	0.26%	0.25%	0.25%	0	0	0	0	-	-	-	2	1.00	
4	0.26%	0.25%	0.28%	0	0	0	0	-	-	-	3	1.00	
5	0.32%	0.27%	0.28%	0	0	0	0	-	-	-	4	1.25	
6	0.42%	0.38%	0.38%	0	0	0	0	-	-	-	5	1.50	
7	0.41%	0.43%	0.44%	0	0	0	0	-	-	-	6	1.75	
8	0.58%	0.51%	0.48%	0	0	0	0	-	-	-	7	2.00	
9	0.50%	0.44%	0.48%	0	0	0	0	-	-	-	8	2.25	
10	0.53%	0.53%	0.54%	0	0	0	0	-	-	-	9	2.50	
11	0.68%	0.58%	0.63%	0	0	0	0	-	-	-			
12	0.76%	0.72%	0.71%	0	0	0	0	-	-	-			
13	0.87%	0.98%	0.95%	0	0	0	0	-	-	-			
14	1.13%	1.32%	1.32%	0	0	0	0	-	-	-			
15	1.24%	1.65%	1.47%	0	0	0	0	-	-	-			
16	2.00%	2.41%	2.92%	0	0	1	0	-	-	-			
17	0.96%	0.79%	1.01%	0	0	0	0	-	-	-			
18	1.99%	1.98%	2.19%	0	0	0	0	-	-	-			
19	2.04%	2.09%	1.93%	0	0	0	0	-	-	-			
20	2.50%	2.99%	3.19%	0	1	1	1	1.00	-	1.00	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	4.05%	4.21%	4.41%	1	2	2	2	1.00	1.00	-			
22	5.40%	5.89%	6.57%	2	3	3	3	1.00	1.00	-	2018	16,304,644	11,771
23	1.38%	1.06%	0.97%	0	0	0	0	-	-	-			
24	2.31%	1.86%	1.41%	0	0	0	0	-	-	-	2017	13,251,843	9,070
25	1.11%	0.80%	0.63%	0	0	0	0	-	-	-			
26	1.45%	1.44%	1.58%	0	0	0	0	-	-	-	<u>Difference:</u>	<u>Difference:</u>	
27	0.20%	0.19%	0.20%	0	0	0	0	-	-	-			
40	1.03%	1.22%	1.34%	0	0	0	0	-	-	-	3,052,801	2,701	
41	1.00%	0.81%	0.80%	0	0	0	0	-	-	-			
42	2.21%	1.55%	1.39%	0	0	0	0	-	-	-	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	0.84%	0.77%	0.82%	0	0	0	0	-	-	-			
44	1.97%	1.93%	2.54%	0	0	0	0	-	-	-	23.0%	29.8%	
45	1.43%	1.70%	2.41%	0	0	0	0	-	-	-			
99	0.22%	0.19%	0.11%	0	0	0	0	-	-	-			
Tot	0.52%	0.51%	0.52%										

*Selection Criteria

- a. If the indicated residual market share group equal in all three years, select that residual market share group.
- b. If two of the three years indicate the same residual market share group, select that residual market share group.
- c. If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits		
	Aug-15	Aug-16	Jul-17	2016	2017	2018							Available Credit Prem:	Credit Eligible Exp:
1	0.67%	0.58%	0.55%	0	0	0	0	-	-	-	0	0.00		
2	0.43%	0.63%	0.63%	0	0	0	0	-	-	-	1	1.00		
3	0.74%	0.60%	0.45%	0	0	0	0	-	-	-	2	1.00		
4	0.47%	0.52%	0.63%	0	0	0	0	-	-	-	3	1.00		
5	0.95%	0.99%	1.07%	0	0	0	0	-	-	-	4	1.25		
6	0.75%	0.87%	0.83%	0	0	0	0	-	-	-	5	1.50		
7	0.93%	0.85%	1.02%	0	0	0	0	-	-	-	6	1.75		
8	0.99%	0.90%	0.98%	0	0	0	0	-	-	-	7	2.00		
9	0.91%	1.41%	1.06%	0	0	0	0	-	-	-	8	2.25		
10	1.62%	1.32%	0.96%	0	0	0	0	-	-	-	9	2.50		
11	1.06%	0.94%	0.99%	0	0	0	0	-	-	-				
12	1.25%	1.16%	1.36%	0	0	0	0	-	-	-				
13	1.78%	2.24%	2.32%	0	0	0	0	-	-	-				
14	1.79%	2.71%	2.30%	0	1	0	0	-	-	-				
15	3.21%	2.50%	3.22%	1	0	1	1	1.00	-	1.00				
16	1.26%	1.01%	3.22%	0	0	1	0	-	-	-				
17	0.74%	1.44%	0.99%	0	0	0	0	-	-	-				
18	3.48%	0.84%	1.18%	1	0	0	0	-	1.00	(1.00)				
19	0.81%	3.90%	2.10%	0	1	0	0	-	-	-				
20	2.78%	6.45%	7.03%	1	3	3	3	1.00	-	1.00			<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>
21	3.20%	4.03%	5.35%	1	1	2	1	1.00	-	1.00				
22	3.28%	3.88%	6.85%	1	1	3	1	1.00	1.00	-	2018	3,711,102		1,626
23	1.80%	0.69%	1.56%	0	0	0	0	-	-	-				
24	2.02%	0.17%	2.09%	0	0	0	0	-	-	-	2017	2,166,851		1,244
25	0.93%	0.86%	3.17%	0	0	1	0	-	-	-				
26	2.02%	1.02%	1.16%	0	0	0	0	-	-	-			<u>Difference:</u>	<u>Difference:</u>
27	0.49%	0.42%	0.34%	0	0	0	0	-	-	-				
40	0.06%	1.03%	2.00%	0	0	0	0	-	1.00	(1.00)			1,544,251	382
41	1.72%	2.06%	2.10%	0	0	0	0	-	1.00	(1.00)				
42	1.03%	0.62%	1.21%	0	0	0	0	-	-	-			<u>Percent Change:</u>	<u>Percent Change:</u>
43	1.67%	1.02%	1.38%	0	0	0	0	-	-	-				
44	2.75%	1.96%	2.19%	1	0	0	0	-	-	-			71.3%	30.7%
45	2.60%	4.33%	6.12%	1	2	3	2	1.00	-	1.00				
99	0.00%	0.43%	0.44%	0	0	0	0	-	-	-				
Tot	0.95%	0.99%	1.06%											

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	5.87%	5.47%	4.15%	3	2	1	2	1.00	-	1.00	0	0.00	
2	3.53%	3.84%	2.57%	1	1	0	1	1.00	1.00	-	1	1.00	
3	3.96%	4.04%	3.59%	1	1	1	1	1.00	1.00	-	2	1.00	
4	2.44%	2.90%	2.72%	0	1	1	1	1.00	1.00	-	3	1.00	
5	5.19%	6.36%	4.68%	2	3	2	2	1.00	1.00	-	4	1.25	
6	5.59%	5.16%	4.02%	2	2	1	2	1.00	1.00	-	5	1.50	
7	5.32%	6.46%	5.27%	2	3	2	2	1.00	1.00	-	6	1.75	
8	5.87%	6.24%	6.08%	3	3	3	3	1.00	1.00	-	7	2.00	
9	6.24%	6.15%	5.40%	3	3	2	3	1.00	1.00	-	8	2.25	
10	6.11%	7.28%	6.37%	3	3	3	3	1.00	1.00	-	9	2.50	
11	4.78%	6.61%	4.37%	2	3	2	2	1.00	1.00	-			
12	6.85%	7.64%	6.06%	3	3	3	3	1.00	1.00	-			
13	8.11%	9.26%	8.20%	3	4	3	3	1.00	1.00	-			
14	11.61%	11.27%	10.24%	4	4	4	4	1.25	1.00	0.25			
15	12.66%	14.61%	11.98%	5	5	4	5	1.50	1.25	0.25			
16	19.40%	16.39%	13.72%	7	6	5	6	1.75	1.50	0.25			
17	9.29%	14.00%	11.91%	4	5	4	4	1.25	1.25	-			
18	14.20%	8.63%	9.05%	5	3	4	4	1.25	1.25	-			
19	14.31%	15.81%	15.60%	5	6	6	6	1.75	1.00	0.75			
20	18.45%	16.33%	15.93%	7	6	6	6	1.75	1.50	0.25	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	24.45%	24.33%	24.63%	9	8	8	8	2.25	1.75	0.50			
22	20.34%	27.23%	22.03%	7	9	8	8	2.25	1.75	0.50	2018	156,629,328	38,622
23	9.64%	7.28%	6.79%	4	3	3	3	1.00	1.25	(0.25)			
24	5.63%	5.53%	7.11%	3	2	3	3	1.00	1.00	-	2017	144,243,109	37,809
25	12.53%	15.05%	9.98%	5	5	4	5	1.50	1.00	0.50			
26	13.21%	14.32%	13.03%	5	5	5	5	1.50	1.50	-	<u>Difference:</u>	<u>Difference:</u>	
27	2.67%	3.97%	3.09%	1	1	1	1	1.00	1.00	-			
40	10.16%	13.23%	8.28%	4	5	3	4	1.25	1.50	(0.25)	12,386,219	813	
41	8.79%	8.88%	9.96%	4	4	4	4	1.25	1.00	0.25			
42	9.19%	7.59%	5.09%	4	3	2	3	1.00	1.25	(0.25)	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	12.33%	12.58%	9.22%	5	5	4	5	1.50	1.25	0.25			
44	13.68%	13.72%	11.01%	5	5	4	5	1.50	1.50	-	8.6%	2.2%	
45	15.16%	22.95%	20.68%	6	8	7	7	2.00	1.25	0.75			
99	1.49%	1.37%	1.32%	0	0	0	0	-	-	-			
Tot	7.95%	8.59%	7.20%										

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	0.39%	0.27%	0.45%	0	0	0	0	-	-	-	0	0.00	
2	0.36%	0.56%	0.43%	0	0	0	0	-	-	-	1	1.00	
3	0.37%	0.49%	0.52%	0	0	0	0	-	-	-	2	1.00	
4	0.39%	0.39%	0.36%	0	0	0	0	-	-	-	3	1.00	
5	0.46%	0.66%	0.58%	0	0	0	0	-	-	-	4	1.25	
6	0.56%	0.42%	0.55%	0	0	0	0	-	-	-	5	1.50	
7	0.54%	0.74%	0.63%	0	0	0	0	-	-	-	6	1.75	
8	0.61%	0.62%	0.84%	0	0	0	0	-	-	-	7	2.00	
9	0.65%	0.66%	0.54%	0	0	0	0	-	-	-	8	2.25	
10	1.23%	1.08%	1.34%	0	0	0	0	-	-	-	9	2.50	
11	0.62%	0.21%	0.16%	0	0	0	0	-	-	-			
12	0.98%	0.92%	1.23%	0	0	0	0	-	-	-			
13	1.22%	1.10%	1.46%	0	0	0	0	-	-	-			
14	0.46%	0.98%	1.01%	0	0	0	0	-	-	-			
15	1.53%	1.99%	2.43%	0	0	0	0	-	-	-			
16	2.43%	0.43%	2.23%	0	0	0	0	-	-	-			
17	0.37%	0.36%	0.32%	0	0	0	0	-	-	-			
18	1.60%	1.93%	0.08%	0	0	0	0	-	-	-			
19	0.00%	0.11%	0.00%	0	0	0	0	-	-	-			
20	0.33%	4.65%	2.76%	0	2	1	1	1.00	-	1.00	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	1.20%	2.17%	1.83%	0	0	0	0	-	-	-			
22	0.00%	1.79%	0.00%	0	0	0	0	-	1.00	(1.00)	2018	1,502,816	472
23	0.48%	1.46%	0.00%	0	0	0	0	-	-	-			
24	1.02%	0.00%	0.26%	0	0	0	0	-	-	-	2017	1,440,283	422
25	0.00%	0.43%	1.26%	0	0	0	0	-	-	-			
26	1.34%	0.36%	0.25%	0	0	0	0	-	-	-	<u>Difference:</u>	<u>Difference:</u>	
27	0.28%	0.35%	0.42%	0	0	0	0	-	-	-			
40	0.48%	0.08%	0.70%	0	0	0	0	-	-	-		62,533	50
41	1.50%	1.31%	1.10%	0	0	0	0	-	-	-			
42	1.01%	0.66%	2.00%	0	0	0	0	-	-	-	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	0.66%	0.54%	0.84%	0	0	0	0	-	-	-			
44	2.21%	1.00%	2.06%	0	0	0	0	-	-	-		4.3%	11.9%
45	1.24%	2.65%	3.35%	0	1	1	1	1.00	1.00	-			
99	0.00%	0.78%	0.00%	0	0	0	0	-	-	-			
Tot	0.52%	0.59%	0.63%										

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	0.32%	0.26%	0.23%	0	0	0	0	-	-	-	0	0.00	
2	0.64%	0.68%	0.68%	0	0	0	0	-	-	-	1	1.00	
3	0.49%	0.57%	0.51%	0	0	0	0	-	-	-	2	1.00	
4	0.55%	0.62%	0.57%	0	0	0	0	-	-	-	3	1.00	
5	0.78%	0.96%	0.93%	0	0	0	0	-	-	-	4	1.25	
6	0.73%	0.74%	0.67%	0	0	0	0	-	-	-	5	1.50	
7	0.87%	0.69%	0.90%	0	0	0	0	-	-	-	6	1.75	
8	1.13%	1.07%	1.24%	0	0	0	0	-	-	-	7	2.00	
9	0.56%	0.95%	1.43%	0	0	0	0	-	-	-	8	2.25	
10	1.62%	1.49%	0.79%	0	0	0	0	-	-	-	9	2.50	
11	1.19%	1.40%	1.04%	0	0	0	0	-	-	-			
12	1.28%	1.49%	1.52%	0	0	0	0	-	-	-			
13	1.32%	1.31%	1.01%	0	0	0	0	-	-	-			
14	2.96%	2.56%	2.33%	1	0	0	0	-	-	-			
15	3.85%	3.32%	3.25%	1	1	1	1	1.00	1.00	-			
16	3.60%	3.77%	4.25%	1	1	2	1	1.00	1.00	-			
17	2.32%	1.39%	0.00%	0	0	0	0	-	-	-			
18	0.53%	0.32%	0.55%	0	0	0	0	-	-	-			
19	1.56%	1.94%	0.78%	0	0	0	0	-	-	-			
20	1.41%	1.34%	1.25%	0	0	0	0	-	-	-	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	2.60%	1.66%	3.52%	1	0	1	1	1.00	-	1.00			
22	2.34%	1.87%	6.76%	0	0	3	0	-	1.00	(1.00)	2018	3,156,540	1,894
23	0.98%	0.75%	1.11%	0	0	0	0	-	-	-			
24	1.58%	1.27%	1.22%	0	0	0	0	-	-	-	2017	928,367	581
25	0.53%	1.24%	0.83%	0	0	0	0	-	-	-			
26	2.89%	3.39%	3.07%	1	1	1	1	1.00	-	1.00	<u>Difference:</u>	<u>Difference:</u>	
27	0.35%	0.40%	0.50%	0	0	0	0	-	-	-			
40	0.60%	0.51%	0.00%	0	0	0	0	-	-	-		2,228,173	1,313
41	1.22%	1.37%	1.39%	0	0	0	0	-	-	-			
42	1.52%	0.73%	0.67%	0	0	0	0	-	-	-	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	2.29%	3.05%	4.25%	0	1	2	1	1.00	-	1.00			
44	2.82%	4.92%	4.91%	1	2	2	2	1.00	-	1.00		240.0%	226.0%
45	0.79%	1.82%	1.78%	0	0	0	0	-	-	-			
99	0.71%	0.00%	0.00%	0	0	0	0	-	-	-			
Tot	0.82%	0.87%	0.90%										

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

Commonwealth Automobile Reinsurers - 4/1/2018 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM
Indexed Market Share Group Ranges By Year

Terr	Residual Market Share			Indicated Mkt Share Range			Selected Range*	2018 Credits	2017 Credits	Change	Residual Mark Shr Group	Keep Out Credits	
	Aug-15	Aug-16	Jul-17	2016	2017	2018							
1	1.05%	0.97%	1.05%	0	0	0	0	-	-	-	0	0.00	
2	1.21%	1.27%	1.03%	0	0	0	0	-	-	-	1	1.00	
3	1.34%	1.32%	1.28%	0	0	0	0	-	-	-	2	1.00	
4	1.17%	1.09%	1.04%	0	0	0	0	-	-	-	3	1.00	
5	1.59%	1.74%	1.58%	0	0	0	0	-	-	-	4	1.25	
6	1.69%	1.74%	1.51%	0	0	0	0	-	-	-	5	1.50	
7	2.04%	2.26%	2.02%	0	0	0	0	-	-	-	6	1.75	
8	1.88%	1.89%	1.72%	0	0	0	0	-	-	-	7	2.00	
9	2.22%	2.38%	1.98%	0	0	0	0	-	-	-	8	2.25	
10	2.35%	2.00%	2.01%	0	0	0	0	-	-	-	9	2.50	
11	1.33%	1.75%	2.10%	0	0	0	0	-	-	-			
12	3.18%	2.98%	2.82%	1	1	1	1	1.00	-	1.00			
13	3.78%	3.61%	3.08%	1	1	1	1	1.00	1.00	-			
14	3.44%	3.47%	3.25%	1	1	1	1	1.00	1.00	-			
15	5.26%	5.88%	5.27%	2	3	2	2	1.00	1.00	-			
16	7.86%	5.29%	4.08%	3	2	1	2	1.00	1.00	-			
17	3.87%	3.92%	2.78%	1	1	1	1	1.00	-	1.00			
18	4.13%	5.25%	3.24%	2	2	1	2	1.00	1.00	-			
19	4.19%	3.92%	1.79%	2	1	0	1	1.00	-	1.00			
20	5.71%	4.38%	4.81%	3	2	2	2	1.00	-	1.00	<u>Available Credit Prem:</u>	<u>Credit Eligible Exp:</u>	
21	8.10%	7.83%	6.63%	3	3	3	3	1.00	1.00	-			
22	4.95%	4.92%	5.11%	2	2	2	2	1.00	1.00	-	2018	7,155,912	26,086
23	3.91%	2.83%	2.17%	1	1	0	1	1.00	1.00	-			
24	1.69%	1.63%	1.82%	0	0	0	0	-	1.00	(1.00)	2017	5,780,515	20,060
25	3.01%	3.57%	3.80%	1	1	1	1	1.00	-	1.00			
26	4.59%	6.82%	4.98%	2	3	2	2	1.00	1.00	-	<u>Difference:</u>	<u>Difference:</u>	
27	0.92%	1.05%	0.95%	0	0	0	0	-	-	-			
40	6.43%	3.91%	3.05%	3	1	1	1	1.00	1.00	-		1,375,397	6,027
41	3.72%	4.05%	3.87%	1	1	1	1	1.00	1.00	-			
42	5.29%	4.69%	3.68%	2	2	1	2	1.00	1.00	-	<u>Percent Change:</u>	<u>Percent Change:</u>	
43	3.70%	2.81%	2.63%	1	1	0	1	1.00	1.00	-			
44	6.66%	8.90%	6.94%	3	4	3	3	1.00	1.00	-		23.8%	30.0%
45	4.69%	5.03%	4.89%	2	2	2	2	1.00	1.00	-			
99	0.40%	1.18%	1.21%	0	0	0	0	-	-	-			
Tot	1.89%	1.92%	1.73%										

*Selection Criteria

- If the indicated residual market share group equal in all three years, select that residual market share group.
- If two of the three years indicate the same residual market share group, select that residual market share group.
- If all three years indicate a different residual market share group, select the median residual market share group.

2018 Proposed Credit Factors

Terr	Rate Class Group									MC/Misc.
	10	15	17	18	20	21	25	26	30	
1	-	-	-	-	1.00	-	-	-	-	-
2	-	-	-	-	1.00	-	-	-	-	-
3	-	-	-	-	1.00	-	-	-	-	-
4	-	-	-	-	1.00	-	-	-	-	-
5	-	-	-	-	1.00	-	-	-	-	-
6	-	-	-	-	1.00	-	-	-	-	-
7	-	-	1.00	-	1.00	1.00	-	-	-	-
8	-	-	1.00	-	1.00	-	-	-	-	-
9	-	-	1.00	-	1.00	1.00	-	-	-	-
10	-	-	1.00	-	1.00	-	-	-	-	-
11	-	-	-	-	1.00	-	-	-	-	-
12	-	-	1.00	-	1.00	1.00	-	-	-	1.00
13	-	-	1.00	-	1.00	1.00	1.00	-	-	1.00
14	1.00	-	1.00	-	1.25	1.00	1.00	-	-	1.00
15	-	-	1.00	1.00	1.50	1.00	1.00	-	1.00	1.00
16	1.00	-	1.00	-	1.75	1.00	1.00	-	1.00	1.00
17	-	-	1.00	-	1.25	-	-	-	-	1.00
18	1.00	-	1.00	-	1.25	1.00	1.00	-	-	1.00
19	-	-	1.00	-	1.75	1.00	-	-	-	1.00
20	1.00	1.00	1.00	1.00	1.75	1.00	1.00	1.00	-	1.00
21	1.00	1.00	1.25	1.00	2.25	1.00	1.00	-	1.00	1.00
22	1.00	1.00	1.25	1.00	2.25	1.00	1.00	-	-	1.00
23	-	-	1.00	-	1.00	1.00	-	-	-	1.00
24	-	-	1.00	-	1.00	-	-	-	-	-
25	-	-	1.00	-	1.50	-	1.00	-	-	1.00
26	-	-	1.00	-	1.50	-	-	-	1.00	1.00
27	-	-	-	-	1.00	-	-	-	-	-
40	-	-	1.00	-	1.25	1.00	-	-	-	1.00
41	-	-	1.00	-	1.25	1.00	1.00	-	-	1.00
42	-	-	1.00	-	1.00	1.00	-	-	-	1.00
43	-	-	1.00	-	1.50	1.00	1.00	-	1.00	1.00
44	1.00	-	1.00	-	1.50	1.00	1.00	-	1.00	1.00
45	1.00	-	1.00	1.00	2.00	1.00	1.00	1.00	-	1.00
99	-	-	-	-	-	-	-	-	-	-

Highlighted 4/1/2017 Credit Eligible Cells