Commonwealth Automobile Reinsurers<br>225 Franklin Street Boston, Massachusetts 02110 www.commauto.com<br>617-338-4000

Natalie A. Hubley President

February 19, 2016

Docket Clerk, Hearings and Appeals
MA Division of Insurance
1000 Washington Street, Suite 810
Boston, MA 02118-6200
RE: Docket No. C2016-01 - Submission of Written Comment
Per the Notice of Hearing distributed on February 2, 2016, Commonwealth Automobile Reinsurers (CAR) submits the attached written testimony with respect to the proposed amendments to Rule 29 of CAR's Rules of Operation.

CAR will be available at the February 25, 2016 hearing to respond to questions, if needed, but expects that all relevant points are addressed in the submission.

Respectfully submitted,


President

Natalie A. Hubley
President

# STATEMENT OF <br> COMMONWEALTH AUTOMOBILE REINSURERS PROPOSED AMENDMENTS TO CAR RULE OF OPERATION NO. 29 <br> Division of Insurance Docket No. C2016-01 <br> February 25, 2016 

Commonwealth Automobile Reinsures (CAR) hereby submits this written testimony regarding the proposed amendments to Rule 29 of CAR's Rules of Operation. The amendments recommend adjustments to the method for determining factors for voluntary credits for policies effective April 1, 2016 and later. CAR submits this testimony to provide additional information with respect to the deliberations of the CAR Actuarial and Governing Committees as they undertook their annual review of MAIP quota share credits required pursuant to Rule 29.E.

The proposed amendments to Rule 29 fulfill CAR's annual obligation to review credits and submit its recommendation to the Commissioner for approval. The Actuarial Committee began its annual review in June 2015 of the three most recent prior years of residual market share data by territory and operator class pursuant to Rule 29.E.2. Based upon the credit eligible groups defined in the Rule by ranges of residual market shares, the Committee observed a significant indicated decrease in credit eligible exposures and available quota share credit premium. The general consensus of the Committee was that implementation of the large indicated decrease may be disruptive to the marketplace and may result in an increased volume of assignments. The Committee, therefore, undertook a thorough and deliberative analysis of several alternative proposals during multiple meetings, and considered widely divergent views with respect to the appropriate level of available credits. Ultimately, the Actuarial Committee's recommendation to the Governing Committee represented a compromise of the Committee members which was supported by a vote of eight members in favor and two opposed.

The Actuarial Committee's recommendation to the Governing Committee maintains in substance the approach for determining credit factors, but recalibrates the ranges of residual market shares upon
which credit eligible groups are defined. The majority of Actuarial Committee members asserted that the recalibration is necessary and consistent with current market conditions.

In consideration of the Actuarial Committee's proposal, the CAR Governing Committee also discussed letters submitted to the Governing Committee by Ms. Paula Gold, representing Plymouth Rock Assurance Corporation, and by the Office of the Attorney General. Both letters urged CAR to carefully consider its statutory obligation with respect to its credit recommendation. Accordingly, the Governing Committee remanded the credit proposal to the Actuarial Committee to further consider whether and to what extent the proposal complies with the statutory requirement of G.L. c. $175, \S 113 \mathrm{H}$ that the size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan. Both letters were forwarded to the Actuarial Committee as it considered the remand. By vote of eight members in favor and one opposed, the Actuarial Committee affirmed its credit proposal and its position that the recommendation complies with the statutory requirement.

After discussion, the Governing Committee voted with nine members in favor and three opposed to recommend Division of Insurance approval of the proposed credit factors employing the adjusted methodology for determining credit values. Additional detail with respect to the Committee discussions is included in the attached Notices and Records of the Actuarial Committee meetings of June 23, 2015, September 2, 2015, October 7, 2015, and December 10, 2015. Also included are Transcripts of the Governing Committee meetings of November 18, 2015 and January 13, 2016., ${ }^{1,2}$ After careful consideration, the Governing Committee voted with nine members in favor and three opposed to recommend Division of Insurance approval of the proposed amendments to Rule 29.

Respectfully submitted,

Natalie A. Hubley
President

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# Commonwealth Automobile Reinsurers <br> 225 Franklin Street Boston, Massachusetts 02110 

## NOTICE OF MEETING

## ACTUARIAL COMMITTEE

A meeting of the Actuarial Committee will be held at the offices of Commonwealth Automobile Reinsurers, 225 Franklin Street, Boston, on

## TUESDAY, JUNE 23, 2015 AT 10:00 A.M.

## MEMBERS OF THE COMMITTEE

Mr. Joseph F. Cofield - Chair<br>Metropolitan P \& C Insurance Company

Mr. Geoffrey H. Arnold
Mr. Alex F. Butensky
Mr. Hall D. Crowder
Mr. Christopher Dupill
Mr. Glenn R. Hiltpold
Mr. John V. Kelly
Mr. Michael Petrarca, Jr.
Ms. Lynellen Ramirez
Mr. John P. Tierney
Ms. Meredith M. Woodcock

Plymouth Rock Assurance Corporation
The Norfolk \& Dedham Group
The Hanover Insurance Company
EM Freedman Insurance Agency, Inc.
Safety Insurance Company
MAPFRE U.S.A. Corporation
Amica Mutual Insurance Company
Arbella Insurance Group
Quincy Mutual Group
Liberty Mutual Group

## AGENDA

## AC

### 14.01 Records of Previous Meeting

The Records of the Actuarial Committee meeting of September 24, 2014 should be read and approved.

## AC

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

The Committee should be prepared to begin discussions relative to quota share credits for policies effective April 1, 2016 and later in order to formulate its recommendation to the Governing Committee at its meeting in November 2015. Exhibits illustrating the determination of credit factors and estimating available credit eligible exposures and credit premium using data reported through March, 2015 are attached. (Docket \#AC15.03, Exhibit \#1)

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
Financial Services Coordinator

## Attachment

Boston, Massachusetts
June 12, 2015

## Commonwealth Automobile Reinsurers

225 Franklin Street Boston, Massachusetts 02110
www.commauto.com 617-338.4000

MEMORANDUM

To: Actuarial Committee
From: Tim Galligan
Financial Services Coordinator
Date: June 12, 2015
Re: $\quad$ Exhibit \#1 for AC 15.03-4/1/2016 Indicated Quota Share Credits
The following is a summary of the data used to calculate the Actuarial Committee exhibits relating to the indicated 4/1/2016 credit factors.

## Premiums/Credit Factors - Rate Year

- Data used for the residual market shares for 2013-2014 reflects the effective period from September to August, and 2015 is updated through March, 2015. The premiums used for calculations throughout the exhibits use rates effective October 1, 2013.
- Voluntary Market Data includes CAR ID Codes 1 and 8 for the 12 month period. Residual Market Data includes CAR ID Code 9 for the 12 month period.


## Definitions

- Credit Eligible Exposures - the number of exposures that would receive credit if all policies were written voluntarily for the 12 month period
- Potential Credit Premium - the amount of credit premium that would be written if all policies were written voluntarily for the 12 month period
- Estimated Credits Used - the amount of credit premium that would be written for the 12 month period based on the voluntary MAIP premium.


## 2016 Indicated Credit Matrix

The proposed 2015 credit matrix is calculated using the three most recent prior years of residual market share data, by territory and operator class. Credit eligible groupings are defined by ranges of residual market shares, and credit factors are assigned to each credit eligible group as defined in Rule 29.E.2.

## Commonwealth Automobile Reinsurers

## 4/1/2016 Credit Offer

Exhibit Descriptions by Page

## Page Description

3 Rate Class Summary
4 Territory Summary
5-14 Indicated Market Share Group Results By Operator Class
15 4/1/2016 Indicated Credit Factor Matrix By Class/Territory

4/1/2015 Credit Factors
4/1/16 Indicated - Residual Market Share Group Methodology


## 4/1/2015 Credit Factors

## 4/1/16 - Residual Market Share Group

| Territory | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium | Credit Eligible <br> Exposures | \% $\Delta$ | Potential <br> Credit Premium | \% 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

\% of Total Mkt. Exp.
9.5\%
2.5\%

| Residual | Keep |
| :---: | :---: |
| Mark Share | Out |
| Group | Credits |


| 0 | 0.00 |
| :--- | :--- |
| 1 | 1.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.25 |
| 5 | 1.50 |
| 6 | 1.75 |
| 7 | 2.00 |
| 8 | 2.25 |
| 9 | 2.50 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
PAGE 5 OF 15
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.87\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.61\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.82\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.35\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.59\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.78\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.82\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.53\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | Availab | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.20\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | (100) |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.87\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 88,015,705 | 46,377 |
| 23 | 3.63\% | 2.49\% | 1.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 435,418,534 | 291,754 |
| 25 | 2.15\% | 1.50\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 3.12\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(347,402,828)$ | $(245,377)$ |
| 41 | 5.88\% | 3.11\% | 2.73\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 3.13\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.50\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.43\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -79.8\% | -84.1\% |
| 45 | 6.64\% | 3.49\% | 2.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.49\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer 

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 1.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.26\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.55\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 8.10\% | 6.62\% | 6.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 2,595,079 | 1,870 |
| 23 | 2.82\% | 1.98\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.36\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,770,537 | 7,996 |
| 25 | 1.73\% | 1.28\% | 1.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  | $(8,175,458)$ | $(6,125)$ |
| 41 | 1.68\% | 1.28\% | 1.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.64\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 2.13\% | 0 | 0 | 0 | 0 | - | - | - |  | -75.9\% | -76.6\% |
| 45 | 2.38\% | 1.83\% | 1.59\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.56\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.36\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.24\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.62\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.25\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.93\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.23\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.80\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.36\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 3.99\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.95\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.28\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 5.21\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 7.50\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 4.23\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 5.58\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 5.90\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.17\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Avail | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.02\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.08\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 55,941,594 | 25,548 |
| 23 | 8.79\% | 6.11\% | 5.15\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 3.22\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 113,462,766 | 59,977 |
| 25 | 6.65\% | 4.56\% | 4.00\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 8.63\% | 5.64\% | 5.68\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 6.30\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(57,521,172)$ | $(34,429)$ |
| 41 | 12.06\% | 6.14\% | 5.03\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.88\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.11\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 7.29\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -50.7\% | -57.4\% |
| 45 | 12.13\% | 6.63\% | 6.66\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.20\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.58\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.33\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.15\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.20\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.45\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.55\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 299,058 | 178 |
| 23 | 2.12\% | 1.27\% | 1.46\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,927,432 | 1,184 |
| 25 | 0.15\% | 1.68\% | 0.87\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.55\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.57\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(1,628,374)$ | $(1,006)$ |
| 41 | 7.29\% | 1.64\% | 1.61\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 2.31\% | 0 | 0 | 0 | 0 | - | - | - |  | -84.5\% | -85.0\% |
| 45 | 4.86\% | 3.11\% | 2.60\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.68\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 1.02\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.60\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.12\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 3.93\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 3.02\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.39\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.56\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.60\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.84\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.32\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.60\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 3.97\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.53\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.15\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 14.41\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 16 | 26.59\% | 25.13\% | 20.26\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 11.18\% | 4 | 2 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 18 | 20.86\% | 22.51\% | 15.04\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 14.91\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 18.24\% | 5 | 4 | 4 | 4 | 1.25 | 1.50 | (0.25) | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 22.19\% | 6 | 5 | 4 | 5 | 1.50 | 1.75 | (0.25) |  |  |  |
| 22 | 33.75\% | 22.17\% | 18.96\% | 6 | 4 | 4 | 4 | 1.25 | 1.75 | (0.50) | 2016 | 93,475,083 | 26,817 |
| 23 | 18.35\% | 10.83\% | 8.16\% | 4 | 2 | 2 | 2 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.70\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 115,509,242 | 33,229 |
| 25 | 13.28\% | 13.16\% | 12.26\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.63\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.66\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 40 | 24.85\% | 11.38\% | 13.69\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | $(22,034,159)$ | $(6,412)$ |
| 41 | 14.09\% | 9.23\% | 9.40\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.96\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.50\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 44 | 24.27\% | 16.44\% | 15.28\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | -19.1\% | -19.3\% |
| 45 | 20.07\% | 18.11\% | 16.36\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

|  | Residual Market Share |  | Share | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | 2014 | 2015 | 2016 |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.60\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.72\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.81\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.93\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.38\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 1.95\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 1.94\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.08\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.29\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.89\% | 4.05\% | 4.17\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 10.82\% | 4.90\% | 3.05\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 16 | 13.13\% | 13.16\% | 10.64\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 1.09\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.93\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.65\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 20 | 11.09\% | 6.02\% | 2.81\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 9.88\% | 2.86\% | 1.91\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 1,619,527 | 740 |
| 23 | 4.67\% | 4.48\% | 3.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.01\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,125,728 | 5,771 |
| 25 | 2.60\% | 0.00\% | 0.16\% | 0 | 0 | 0 | 0 | - | - |  |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.54\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 4.98\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | $(12,506,200)$ | $(5,031)$ |
| 41 | 12.53\% | 5.33\% | 5.20\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 2.60\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 1.55\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.21\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -88.5\% | -87.2\% |
| 45 | 10.32\% | 2.31\% | 3.14\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.38\% | 0.00\% | -5.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.42\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.13\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.68\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.38\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.65\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.06\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 3.21\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 6.11\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.63\% | 4 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.10\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 6.47\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.50\% | 0 | 3 | 2 | 2 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.51\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.86\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 4.00\% | 2 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 11,366,300 | 2,868 |
| 23 | 6.30\% | 3.39\% | 2.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,361,057 | 3,827 |
| 25 | 8.64\% | 0.00\% | 2.29\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 1.62\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 3.21\% | 0 | 0 | 0 | 0 | - | - | - |  | $(2,994,757)$ | (959) |
| 41 | 4.94\% | 4.21\% | 4.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 3.06\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.29\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.23\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -20.9\% | -25.1\% |
| 45 | 7.15\% | 5.62\% | 5.87\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.76\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.39\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.06\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 1.21\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.53\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.58\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 1.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,101,350 | 369 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.29\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,101,350)$ | (369) |
| 41 | 3.25\% | 1.54\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 3.12\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 2.26\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.59\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.35\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.87\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 3.98\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 3.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 3.47\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 3.54\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 414,275 | 291 |
| 23 | 0.98\% | 1.55\% | 1.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.00\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 796,291 | 523 |
| 25 | 1.31\% | 0.80\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.45\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  | $(382,016)$ | (233) |
| 41 | 1.68\% | 1.20\% | 0.87\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.84\% | 0 | 0 | 0 | 0 | - | - | - |  | -48.0\% | -44.4\% |
| 45 | 2.31\% | 1.05\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 1.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.89\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Mar-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.13\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.15\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 2.03\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.25\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.63\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 2.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.69\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.77\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 7.59\% | 7.08\% | 6.67\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 6.94\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 3.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 5.47\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 3.93\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 4.09\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 6.51\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 5.13\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 1,621,460 | 6,488 |
| 23 | 6.85\% | 4.79\% | 4.21\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.22\% | 3.74\% | 2.45\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 3,978,423 | 17,983 |
| 25 | 3.76\% | 2.63\% | 2.59\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.90\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 1.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 7.13\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(2,356,963)$ | $(11,496)$ |
| 41 | 5.70\% | 3.98\% | 2.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 8.14\% | 6.17\% | 4.99\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.13\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.90\% | 7.20\% | 5.68\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -59.2\% | -63.9\% |
| 45 | 7.16\% | 5.59\% | 4.52\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.91\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer 2016 Indicated Credit Factors - Data Through March, 2015

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

[^1]Commonwealth Automobile Reinsurers
225 Franklin Street Boston, Massachusetts 02110

## RECORDS OF MEETING

## ACTUARIAL COMMITTEE - JUNE 23, 2015

Members Present

Mr. Joseph F. Cofield - Chair<br>Mr. Geoffrey H. Arnold<br>Mr. Jonathan Blake*<br>Mr. Alex F. Butensky<br>Mr. Christopher Dupill<br>Mr. Glenn R. Hiltpold<br>Mr. John V. Kelly<br>Mr. Michael Petrarca, Jr.<br>Ms. Lynellen Ramirez<br>Mr. John P. Tierney<br>Ms. Meredith M. Woodcock

Substituted for:
Mr. Hall D. Crowder*

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

### 14.01 Records of Previous Meeting

The Committee unanimously voted to approve the Records of the Actuarial Committee meeting of September 24, 2014. The Records have been distributed and are on file with CAR's Secretary.

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

Mr. Timothy Galligan reviewed reports calculating voluntary credit factors for policies effective April 1, 2016 and later using the algorithm codified in Rule 29. Mr. Galligan noted that the indications estimate a $73.7 \%$ decrease in credit-eligible exposures and a corresponding $64.1 \%$ decrease in available quota share credit premium using data reported through March, 2015. Mr. Galligan advised the Committee that the current indications result in 73 class/territory cells receiving credit, compared to 127 from the prior year. The decrease in credits is impacted by 55 cells losing the credit entirely, when compared to the prior year's credit factors.

The Committee noted the successful depopulation of the residual market since the implementation of the MAIP and competitive rating. Some members highlighted the impact of the credit offers and credit usage as an influential factor in the depopulation. Other members suggested that
although credits and credit usage were a part of the depopulation, that successful rating strategies were more influential in the depopulation.

Some members suggested that the current formula indication represents a significant decrease in credit premium that could result in market disruption to those writing credit eligible risks, and that it could result in more risks being put back into the residual market. Others disagreed, and noted that the current mechanism has worked well, and was built to be self-correcting.

The Committee's discussion focused on three general alternatives:

- The adoption of the credit factors as indicated, with a $64.1 \%$ decrease in potential credit eligible premium.
- Modification of the formula to mitigate the substantial decrease.
- A "freeze" of credit factors, using the 2015 credit factors for the 2016 credit offer.

Members favoring the adoption of the current formulaic approach and the current credit indications opined the following:

- The current formula works well and the mechanism was designed to be self-correcting in the event of any swings in the residual market ranges.
- The size of the residual market is more influenced by adequate voluntary rating in the competitive market and less influenced by the credits and credit usage.
- Companies have easier accessibility to buying and selling excess credit premium because of the amount of credit premium in the system; this reduces companies direct participation in the assignment sharing process.
- With a smaller residual market, companies are better incented to write the remaining business voluntarily by strengthening take-out credits and allowing the keep-out mechanism to adjust credits as indicated by the formulaic approach.
- As the size of the residual market decreases, so does the need for credits. If all MAIP business was written voluntarily, the value of credit premium would be zero.

Members supporting modifications to the formula or the "freezing" of credit factors opined the following:

- The size of the indicated credit premium decrease is extreme, and if implemented, would cause repopulation of the residual market.
- A significant reduction in credit eligible cells would be disruptive to companies strategically writing risks voluntarily in those classes and territories that lost the credit.
- The Division of Insurance (DOI) may not approve the offer. In a prior credit decision, the DOI indicated that it would not approve an extreme reduction of credits in certain classes and territories, and put forth specific constraints on any reductions allowed.

The Committee then discussed the statutory objective and considered how to measure disproportionate representation in the residual market. Mr. Geoffrey Arnold distributed an exhibit that measured MAIP residual market shares at varying levels above the statewide average, and included statistics on standard deviation to define where credits are needed by highlighting "disproportionate" as a numerical percentage above the statewide average residual market rate.

Other members suggested that the statutory objective has been successfully met.

After considerable discussion, the Committee identified the following areas of interest and requested Staff investigate and prepare exhibits for the next meeting:

- The current formulaic indication, incorporating the most recent data. The Committee also requested Staff to compare the April-May 2015 results to April-May 2014.
- Freeze the April, 2015 approved credit factors for policies effective April, 2016 and subsequent.
- Calculate the credit indications using an average of the indicated April, 2016 credit factors and the April, 2015 approved credit factors.
- Redefine the credit ranges into relative ranges based on what the relativities were when the initial ranges were established as compared to the overall residual market rate.
- Produce loss ratio results for credit business in order to consider the impact to credit usage.

The Committee also encouraged members to forward additional proposals to Staff and scheduled its next meeting on Wednesday, September 2, 2015 at 1 pm to continue discussions relative to the 2016 credit offer.

TIMOTHY GALLIGAN
Financial Services Coordinator

Attachments
Boston, Massachusetts
August 4, 2015

## ATTACHMENT LISTING

Docket \#AC15.02, Exhibit \#1
Docket \#AC15.03, Exhibit \#2

Attendance Listing
Exhibit Distributed by Geoffrey Arnold



Historical Credit Offers as a function of Alternate Definitions of "Disproportionate"

|  |  | Percent of Exposures in Excess of Floor as of: |  |  |  |  | Percent of These Exposures Receiving Credits as of: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Aug-2011 | Aug-2012 | Aug-2013 | Aug-2014 | Mar-2015 | Aug-2011 | Aug-2012 | Aug-2013 | Aug-2014 | Mar-2015 |
| CREDIT <br> FLOOR <br> when MAIP <br> Share = 'n' <br> Percent of <br> Average | 100\% | 28.9\% | 33.8\% | 33.9\% | 35.2\% | 34.9\% | 37.9\% | 30.9\% | 30.2\% | 26.7\% | 7.18\% |
|  | 125\% | 21.6\% | 21.0\% | 23.4\% | 20.6\% | 20.9\% | 50.6\% | 49.7\% | 43.7\% | 45.7\% | 12.0\% |
|  | 150\% | 17.2\% | 17.3\% | 17.3\% | 17.0\% | 17.3\% | 63.4\% | 60.0\% | 59.1\% | 55.4\% | 14.5\% |
|  | 175\% | 15.8\% | 15.6\% | 14.4\% | 14.6\% | 14.5\% | 68.6\% | 65.9\% | 68.0\% | 64.4\% | 17.0\% |
|  | 185\% | 10.4\% | 10.3\% | 14.0\% | 13.0\% | 9.58\% | 99.8\% | 99.4\% | 69.8\% | 66.2\% | 25.8\% |
|  | 200\% | 10.3\% | 9.70\% | 9.36\% | 8.21\% | 8.05\% | 99.9\% | 99.8\% | 99.8\% | 92.1\% | 30.6\% |
|  | 250\% | 8.41\% | 8.26\% | 7.18\% | 5.66\% | 4.61\% | 100.0\% | 99.9\% | 100.0\% | 99.5\% | 50.7\% |
|  | 300\% | 6.99\% | 5.61\% | 3.39\% | 2.47\% | 3.38\% | 100.0\% | 100.0\% | 100.0\% | 99.9\% | 68.1\% |
|  | 500\% | 0.82\% | 0.61\% | 0.58\% | 0.39\% | 0.44\% | 100.0\% | 100.0\% | 100.0\% | 99.6\% | 97.1\% |
| CREDIT FLOOR <br> when MAIP Share = 'n' Standard Deviations above the Mean | 0.00 | 28.9\% | 33.8\% | 33.9\% | 35.2\% | 34.9\% | 37.9\% | 30.9\% | 30.2\% | 26.7\% | 7.18\% |
|  | 0.10 | 24.6\% | 24.4\% | 27.6\% | 28.6\% | 29.3\% | 44.5\% | 42.7\% | 37.1\% | 32.9\% | 8.54\% |
|  | 0.20 | 22.3\% | 23.2\% | 23.7\% | 24.9\% | 25.4\% | 49.1\% | 45.0\% | 43.1\% | 37.7\% | 9.85\% |
|  | 0.30 | 21.2\% | 20.8\% | 20.3\% | 20.6\% | 20.9\% | 51.6\% | 50.1\% | 50.4\% | 45.7\% | 12.0\% |
|  | 0.40 | 20.8\% | 17.3\% | 17.8\% | 18.9\% | 19.3\% | 52.6\% | 59.8\% | 57.4\% | 49.7\% | 13.0\% |
|  | 0.45 | 17.2\% | 17.3\% | 17.7\% | 18.9\% | 18.5\% | 63.4\% | 59.9\% | 57.7\% | 49.7\% | 13.6\% |
|  | 0.50 | 17.2\% | 17.3\% | 17.3\% | 18.9\% | 18.0\% | 63.4\% | 60.0\% | 59.1\% | 49.8\% | 13.9\% |
|  | 0.55 | 17.1\% | 16.1\% | 17.3\% | 18.3\% | 17.4\% | 63.9\% | 64.3\% | 59.1\% | 51.3\% | 14.4\% |
|  | 0.60 | 16.9\% | 16.1\% | 17.3\% | 17.0\% | 17.3\% | 64.2\% | 64.6\% | 59.1\% | 55.4\% | 14.5\% |
|  | 0.65 | 16.1\% | 16.0\% | 17.2\% | 16.8\% | 16.8\% | 67.4\% | 64.8\% | 59.2\% | 56.0\% | 14.9\% |
|  | 0.70 | 15.8\% | 15.7\% | 15.8\% | 16.2\% | 16.4\% | 68.6\% | 66.0\% | 62.3\% | 57.9\% | 15.3\% |
|  | 0.75 | 14.6\% | 15.7\% | 15.7\% | 15.8\% | 16.0\% | 74.3\% | 66.0\% | 62.6\% | 59.4\% | 15.7\% |
|  | 0.80 | 10.5\% | 15.6\% | 14.4\% | 14.6\% | 14.6\% | 99.4\% | 65.9\% | 68.0\% | 64.3\% | 16.9\% |
|  | 0.85 | 10.4\% | 10.7\% | 14.4\% | 14.6\% | 14.5\% | 99.9\% | 95.9\% | 68.0\% | 64.4\% | 17.0\% |
|  | 0.90 | 10.4\% | 9.74\% | 14.0\% | 14.5\% | 13.7\% | 99.9\% | 99.8\% | 69.8\% | 64.7\% | 18.0\% |
|  | 0.95 | 10.3\% | 9.74\% | 14.0\% | 14.4\% | 10.3\% | 99.9\% | 99.8\% | 69.8\% | 65.1\% | 24.0\% |
|  | 1.00 | 10.2\% | 9.70\% | 10.1\% | 13.2\% | 9.51\% | 99.9\% | 99.8\% | 96.8\% | 65.0\% | 26.0\% |
|  | 1.10 | 9.72\% | 9.70\% | 9.36\% | 8.32\% | 8.25\% | 99.9\% | 99.8\% | 99.8\% | 91.4\% | 29.9\% |
|  | 1.20 | 9.29\% | 8.93\% | 9.29\% | 8.21\% | 8.05\% | 100.0\% | 99.9\% | 99.9\% | 92.2\% | 30.6\% |
|  | 1.30 | 8.74\% | 8.88\% | 9.23\% | 7.26\% | 6.80\% | 100.0\% | 99.9\% | 99.9\% | 92.8\% | 34.6\% |
|  | 1.40 | 8.45\% | 8.88\% | 8.59\% | 6.45\% | 5.17\% | 100.0\% | 99.9\% | 99.9\% | 95.9\% | 45.5\% |
|  | 1.50 | 8.41\% | 8.33\% | 7.37\% | 6.32\% | 4.72\% | 100.0\% | 99.9\% | 99.9\% | 97.7\% | 49.4\% |
|  | 1.60 | 8.19\% | 7.22\% | 7.28\% | 6.21\% | 4.63\% | 100.0\% | 99.9\% | 100.0\% | 98.0\% | 50.4\% |
|  | 1.70 | 7.07\% | 7.04\% | 7.17\% | 5.69\% | 4.61\% | 100.0\% | 99.9\% | 100.0\% | 99.0\% | 50.7\% |
|  | 1.80 | 7.03\% | 6.84\% | 6.00\% | 5.34\% | 4.60\% | 100.0\% | 99.9\% | 100.0\% | 99.8\% | 50.7\% |
|  | 1.90 | 7.02\% | 5.75\% | 5.99\% | 3.96\% | 4.18\% | 100.0\% | 99.9\% | 100.0\% | 99.7\% | 55.8\% |
|  | 2.00 | 6.54\% | 5.62\% | 5.45\% | 3.81\% | 3.84\% | 100.0\% | 100.0\% | 100.0\% | 99.8\% | 60.7\% |
|  | 2.25 | 5.22\% | 5.46\% | 3.39\% | 3.27\% | 3.39\% | 100.0\% | 100.0\% | 100.0\% | 99.8\% | 68.1\% |
|  | 2.50 | 3.79\% | 3.26\% | 3.16\% | 2.27\% | 2.44\% | 100.0\% | 100.0\% | 100.0\% | 99.9\% | 93.9\% |
|  | 2.75 | 1.66\% | 1.60\% | 1.90\% | 2.16\% | 2.43\% | 100.0\% | 100.0\% | 100.0\% | 99.9\% | 94.5\% |
|  | 3.00 | 1.56\% | 1.52\% | 1.13\% | 1.21\% | 2.08\% | 100.0\% | 100.0\% | 100.0\% | 99.9\% | 96.1\% |
|  | 3.50 | 1.22\% | 0.81\% | 0.98\% | 0.79\% | 0.94\% | 100.0\% | 100.0\% | 100.0\% | 99.8\% | 95.0\% |
|  | 4.00 | 0.78\% | 0.61\% | 0.61\% | 0.47\% | 0.65\% | 100.0\% | 100.0\% | 100.0\% | 99.7\% | 92.8\% |
|  | 4.50 | 0.42\% | 0.45\% | 0.58\% | 0.41\% | 0.44\% | 100.0\% | 100.0\% | 100.0\% | 99.6\% | 97.1\% |
|  | 5.00 | 0.37\% | 0.38\% | 0.35\% | 0.38\% | 0.38\% | 100.0\% | 100.0\% | 100.0\% | 99.6\% | 100.0\% |

## NOTICE OF MEETING

## ACTUARIAL COMMITTEE

A meeting of the Actuarial Committee will be held at the offices of Commonwealth Automobile Reinsurers, 225 Franklin Street, Boston, on

# WEDNESDAY, SEPTEMBER 2, 2015 AT 1:00 P.M. <br> MEMBERS OF THE COMMITTEE 

Mr. Joseph F. Cofield - Chair
Metropolitan P \& C Insurance Company

Mr. Geoffrey H. Arnold
Mr. Alex F. Butensky
Mr. Jonathan Blake
Mr. Christopher Dupill
Mr. Glenn R. Hiltpold
Mr. John V. Kelly
Mr. Michael Petrarca, Jr.
Ms. Lynellen Ramirez
Mr. John P. Tierney
Ms. Meredith M. Woodcock

Plymouth Rock Assurance Corporation
The Norfolk \& Dedham Group
The Hanover Insurance Company
EM Freedman Insurance Agency, Inc.
Safety Insurance Company
MAPFRE U.S.A. Corporation
Amica Mutual Insurance Company
Arbella Insurance Group
Quincy Mutual Group
Liberty Mutual Group

## AGENDA

## AC

15.01 Records of Previous Meeting

The Records of the Actuarial Committee meeting of June 23, 2015 should be read and approved.

## AC

15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

At its June 23, 2015 meeting, the Committee began discussions relative to the April 1, 2016 Credit Offer, and requested Staff prepare the following exhibits related to the Quota Share Credits:

- A Summary of Exhibits (Docket \#AC15.03, Exhibit \#3
- The current formulaic indication, incorporating data through May 2015. (Docket \#AC15.03, Exhibit \#4)
- Credit Indications freezing the April 2015 approved credit factors for policies effective April 2016 and subsequent. (Docket \#AC15.03, Exhibit \#5)
- Credit Indications using an average of the indicated April 2016 credit factors and the April 2015 approved credit factors. (Docket \#AC15.03, Exhibit \#6)
- Credit Indications using relative ranges based on what the relativities were when the initial ranges were established as compared to the overall residual market rate. (Docket \#AC15.03, Exhibit \#7)
- An exhibit detailing loss ratio results by class/territory to consider the impact to credit usage. (Docket \#AC15.03, Exhibit \#8)
- An exhibit that compares the April - May 2015 residual market share data to April - May 2014. (Docket \#AC15.03, Exhibit \#9)
- An exhibit displaying take-out credit premium and exposure by class and territory. (Docket \#AC15.03, Exhibit \#10)

Staff has also included summaries of the credit indications and a historical perspective of prior years proposed credit indications vs. approved credit offers to assist the Committee. (Docket \#AC15.03, Exhibits \#11 and 12)

Additionally, per request at the prior meeting, CAR Bulletin No. 918 dated December 18, 2009 is attached, and details a Remand from the Division of Insurance that included specific criteria to be satisfied in a credit premium offer. (Docket \#AC15.03, Exhibit \#13)

Similarly, CAR Bulletin No. 953 dated December 20, 2011 is attached and details the Division of Insurance Decision that created the Residual Market Share Group Methodology used for credit factor indications based on a three year residual market share analysis. (Docket \#AC15.03, Exhibit \#14)

The Committee should be prepared to review these exhibits and to continue discussions relative to quota share credits for policies effective April 1, 2016 and later in order to formulate its recommendation to the Governing Committee at its meeting in November 2015.

## 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.

Attachments
Boston, Massachusetts
August 20, 2015

## Exhibit \# \# Pages Description

1 Exhibit Summary

13 Indicated Results (1) - Residual Market Share Group Methodology

13 Indicated Results (2) - "Freeze": Use April, 2015 Credits for April, 2016

13 Indicated Results (3) - Average of April, 2016 Indications and April, 2015 Approved

13 Indicated Results (4) - Relative Credit Factor Ranges

2 Loss Ratios By Class/Territory

3 Data Comparison: April-May 2015 vs. April-May 2014 - Residual Market Shares
4 Summary of Take-Out Credits By Class/Territory
1 Summary of Credit Indications Requested By Committee (Data through May, 2015)

2 Summary of Credit Offers Proposed vs. Approved 2010-2015
6 CAR Bulletin 918, Remand of Rule 29, Dated December 18, 2009
CAR Bulletin 953, Decision to the create Residual Market Share Group Methodology , Dated December 20, 2011

4/1/2015 Credit Factors
4/1/16 Indicated - Residual Market Share Group Methodology

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential <br> Credit Premium | Credit Eligible Exposures | \% 人 | Potential Credit Premium | \% $\triangle$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 46,736 | -84.1\% | 88,648,806 | -79.7\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 1,897 | -76.6\% | 2,628,381 | -75.9\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 25,988 | -57.4\% | 56,889,710 | -50.6\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 180 | -84.9\% | 300,668 | -84.5\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 27,067 | -19.1\% | 94,391,768 | -19.0\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 750 | -87.1\% | 1,631,037 | -88.5\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 2,961 | -25.5\% | 11,730,229 | -21.1\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 296 | -43.5\% | 419,288 | -47.5\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 6,940 | -63.7\% | 1,739,815 | -58.9\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 112,815 | -73.6\% | 258,379,702 | -64.0\% |

\% of Total Mkt. Exp.

| Estimated Credits Used $678,766,758$ <br> Credit Utilization $94.6 \%$ | Estimated Credits Used Credit Utilization | $\begin{gathered} 237,609,432 \\ 92.0 \% \end{gathered}$ |
| :---: | :---: | :---: |
|  | Residual Mark Share Group | Keep Out Credits |
|  | 0 | 0.00 |
|  | 1 | 1.00 |
|  | 2 | 1.00 |
|  | 3 | 1.00 |
|  | 4 | 1.25 |
|  | 5 | 1.50 |
|  | 6 | 1.75 |
|  | 7 | 2.00 |
|  | 8 | 2.25 |
|  | 9 | 2.50 |

## 4/1/2015 Credit Factors

4/1/16 - Residual Market Share Group

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% 4 | Potential Credit Premium | \% $\triangle$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 178,846 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| 2 | 240,517 | 1,071 | 2,136,317 | 0 | -100.0\% | 0 | -100.0\% |
| 3 | 516,709 | 2,389 | 4,958,166 | 0 | -100.0\% | 0 | -100.0\% |
| 4 | 328,044 | 1,323 | 3,128,040 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 503,612 | 2,979 | 6,640,413 | 2,979 | 0.0\% | 6,640,413 | 0.0\% |
| 6 | 337,265 | 1,686 | 4,381,658 | 1,686 | 0.0\% | 4,381,658 | 0.0\% |
| 7 | 346,203 | 13,242 | 21,955,577 | 2,318 | -82.5\% | 5,849,345 | -73.4\% |
| 8 | 198,142 | 6,783 | 11,898,661 | 1,190 | -82.4\% | 3,092,648 | -74.0\% |
| 9 | 197,535 | 8,959 | 16,771,593 | 1,629 | -81.8\% | 4,868,042 | -71.0\% |
| 10 | 95,365 | 4,425 | 8,333,668 | 686 | -84.5\% | 2,051,669 | -75.4\% |
| 11 | 72,051 | 622 | 2,067,094 | 622 | 0.0\% | 2,067,094 | 0.0\% |
| 12 | 193,543 | 7,214 | 14,969,401 | 1,717 | -76.2\% | 5,141,427 | -65.7\% |
| 13 | 209,132 | 17,789 | 26,280,639 | 10,333 | -41.9\% | 22,869,438 | -13.0\% |
| 14 | 71,888 | 6,624 | 14,066,453 | 4,359 | -34.2\% | 12,317,854 | -12.4\% |
| 15 | 25,481 | 2,572 | 5,523,585 | 2,416 | -6.1\% | 4,799,810 | -13.1\% |
| 16 | 13,716 | 12,349 | 19,409,286 | 1,222 | -90.1\% | 3,576,125 | -81.6\% |
| 17 | 17,221 | 394 | 935,879 | 394 | 0.0\% | 856,049 | -8.5\% |
| 18 | 16,024 | 13,819 | 20,313,141 | 1,163 | -91.6\% | 2,637,227 | -87.0\% |
| 19 | 15,535 | 507 | 1,369,708 | 507 | 0.0\% | 1,428,138 | 4.3\% |
| 20 | 17,850 | 14,698 | 22,950,553 | 1,035 | -93.0\% | 3,558,690 | -84.5\% |
| 21 | 47,126 | 45,990 | 92,918,729 | 39,410 | -14.3\% | 82,090,118 | -11.7\% |
| 22 | 15,070 | 15,070 | 32,426,892 | 14,652 | -2.8\% | 30,116,039 | -7.1\% |
| 23 | 44,947 | 2,840 | 7,306,664 | 1,974 | -30.5\% | 5,812,082 | -20.5\% |
| 24 | 24,678 | 1,240 | 2,582,239 | 468 | -62.3\% | 1,607,971 | -37.7\% |
| 25 | 16,489 | 501 | 1,420,658 | 156 | -68.8\% | 561,755 | -60.5\% |
| 26 | 21,310 | 1,627 | 4,331,949 | 1,335 | -18.0\% | 2,790,379 | -35.6\% |
| 27 | 410,054 | 1,599 | 2,794,681 | 0 | -100.0\% | 0 | -100.0\% |
| 40 | 20,429 | 16,563 | 22,445,108 | 1,745 | -89.5\% | 2,969,260 | -86.8\% |
| 41 | 58,493 | 50,381 | 59,922,425 | 4,015 | -92.0\% | 8,506,644 | -85.8\% |
| 42 | 73,196 | 59,487 | 96,870,257 | 3,245 | -94.5\% | 6,075,638 | -93.7\% |
| 43 | 47,219 | 39,711 | 65,489,722 | 3,064 | -92.3\% | 9,322,970 | -85.8\% |
| 44 | 33,392 | 29,611 | 38,826,123 | 3,475 | -88.3\% | 6,908,192 | -82.2\% |
| 45 | 50,680 | 42,661 | 82,039,256 | 5,020 | -88.2\% | 15,483,030 | -81.1\% |
| 99 | 12,637 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 112,815 | -73.6\% | 258,379,702 | -64.0\% |
| \% of Total Mkt. Exp. |  | 9.5\% |  | 2.5\% |  |  |  |


| Residual <br> Mark Share <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 |  |
| 1 | 0.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.00 |
| 5 | 1.25 |
| 6 | 1.50 |
| 7 | 1.75 |
| 8 | 2.00 |
| 9 | 2.25 |
|  | 2.50 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ |  | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  | Change |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.78\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.50\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.80\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.68\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.59\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.08\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.90\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 88,648,806 | 46,736 |
| 23 | 3.63\% | 2.49\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 437,702,290 | 293,247 |
| 25 | 2.15\% | 1.50\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.87\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(349,053,484)$ | $(246,512)$ |
| 41 | 5.88\% | 3.11\% | 2.57\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.88\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.51\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.33\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -79.7\% | -84.1\% |
| 45 | 6.64\% | 3.49\% | 2.91\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.43\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.25\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.91\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 2,628,381 | 1,897 |
| 23 | 2.82\% | 1.98\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,891,112 | 8,091 |
| 25 | 1.73\% | 1.28\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  | $(8,262,731)$ | $(6,194)$ |
| 41 | 1.68\% | 1.28\% | 1.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.91\% | 0 | 0 | 0 | 0 | - | - | - |  | -75.9\% | -76.6\% |
| 45 | 2.38\% | 1.83\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  | Credits |  |
| 1 | 3.25\% | 2.47\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.21\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.54\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.85\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.43\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.83\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.35\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 4.01\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.43\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.71\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 6.18\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 6.94\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.03\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.21\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.70\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 56,889,710 | 25,988 |
| 23 | 8.79\% | 6.11\% | 5.46\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.90\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 115,233,840 | 60,950 |
| 25 | 6.65\% | 4.56\% | 3.40\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.78\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.44\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(58,344,130)$ | $(34,962)$ |
| 41 | 12.06\% | 6.14\% | 4.77\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.63\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.20\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -50.6\% | -57.4\% |
| 45 | 12.13\% | 6.63\% | 6.56\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.09\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.61\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 1.01\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.99\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.49\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 300,668 | 180 |
| 23 | 2.12\% | 1.27\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,939,846 | 1,192 |
| 25 | 0.15\% | 1.68\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.26\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(1,639,178)$ | $(1,012)$ |
| 41 | 7.29\% | 1.64\% | 1.51\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - |  | -84.5\% | -84.9\% |
| 45 | 4.86\% | 3.11\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.97\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.35\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.05\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.45\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.72\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.24\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.80\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.16\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.47\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.98\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.24\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 4.73\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.58\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.05\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 13.27\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 16 | 26.59\% | 25.13\% | 19.78\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 10.30\% | 4 | 2 | 2 | 2 | 1.00 | 1.25 | (0.25) |  |  |  |
| 18 | 20.86\% | 22.51\% | 13.75\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.09\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 21.63\% | 5 | 4 | 4 | 4 | 1.25 | 1.50 | (0.25) | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.05\% | 6 | 5 | 5 | 5 | 1.50 | 1.75 | (0.25) |  |  |  |
| 22 | 33.75\% | 22.17\% | 19.18\% | 6 | 4 | 4 | 4 | 1.25 | 1.75 | (0.50) | 2016 | 94,391,768 | 27,067 |
| 23 | 18.35\% | 10.83\% | 8.04\% | 4 | 2 | 2 | 2 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.75\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,472,201 | 33,449 |
| 25 | 13.28\% | 13.16\% | 13.61\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.82\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.29\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 40 | 24.85\% | 11.38\% | 12.36\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | $(22,080,434)$ | $(6,382)$ |
| 41 | 14.09\% | 9.23\% | 9.19\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.10\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.66\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.98\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | -19.0\% | -19.1\% |
| 45 | 20.07\% | 18.11\% | 15.95\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

|  | Residual Market Share |  |  | Indicated | Mkt Shar | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \\ \hline \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \\ \hline \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.45\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.82\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 2.12\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.10\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.73\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.82\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.14\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.89\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.94\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.72\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.59\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.13\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 9.88\% | 2.86\% | 2.75\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 1,631,037 | 750 |
| 23 | 4.67\% | 4.48\% | 2.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,215,271 | 5,813 |
| 25 | 2.60\% | 0.00\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 5.37\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(12,584,234)$ | $(5,063)$ |
| 41 | 12.53\% | 5.33\% | 4.95\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.25\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.67\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.47\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -88.5\% | -87.1\% |
| 45 | 10.32\% | 2.31\% | 3.00\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.38\% | 0.00\% | -6.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.33\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25

|  | Residual Market Share |  |  | Indicate | Mkt Shar | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.30\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.67\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.48\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.99\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.23\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.66\% | 4 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 7.21\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.06\% | 0 | 3 | 2 | 2 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.27\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.41\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.58\% | 2 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 11,730,229 | 2,961 |
| 23 | 6.30\% | 3.39\% | 1.52\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.15\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,864,458 | 3,973 |
| 25 | 8.64\% | 0.00\% | 2.18\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.08\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 2.86\% | 0 | 0 | 0 | 0 | - | - | - |  | $(3,134,229)$ | $(1,012)$ |
| 41 | 4.94\% | 4.21\% | 4.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.05\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.46\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -21.1\% | -25.5\% |
| 45 | 7.15\% | 5.62\% | 6.23\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.73\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.06\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,115,203 | 372 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.78\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,115,203)$ | (372) |
| 41 | 3.25\% | 1.54\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.81\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - |  |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.57\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.90\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 2.62\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.44\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 419,288 | 296 |
| 23 | 0.98\% | 1.55\% | 1.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 798,566 | 523 |
| 25 | 1.31\% | 0.80\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.90\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  | $(379,278)$ | (227) |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - |  | -47.5\% | -43.5\% |
| 45 | 2.31\% | 1.05\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.87\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $2016$ <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.58\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.83\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.63\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.25\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.53\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.21\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 5.33\% | 0 | 0 | 1 | 0 | - | - | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.34\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 3.14\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 1,739,815 | 6,940 |
| 23 | 6.85\% | 4.79\% | 4.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.74\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 4,231,745 | 19,116 |
| 25 | 3.76\% | 2.63\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.50\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 6.69\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(2,491,930)$ | $(12,176)$ |
| 41 | 5.70\% | 3.98\% | 3.52\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.10\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.22\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.69\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -58.9\% | -63.7\% |
| 45 | 7.16\% | 5.59\% | 4.77\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.93\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors - Data Through May, 2015

| Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | $\mathbf{1 0}$ | $\mathbf{1 5}$ | $\mathbf{1 7}$ | $\mathbf{1 8}$ | $\mathbf{2 0}$ | $\mathbf{2 1}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{3 0}$ | MC/Misc. |
| $\mathbf{1}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{2}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{3}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{4}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{5}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{6}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{7}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{8}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{9}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 0}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 1}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 2}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 3}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 4}$ | - | - | 1.00 | - | 1.00 | - | 1.00 | - | - | - |
| $\mathbf{1 5}$ | - | - | 1.00 | - | 1.00 | - | 1.00 | - | 1.00 | 1.00 |
| $\mathbf{1 6}$ | - | - | 1.00 | - | 1.50 | 1.00 | - | - | - | 1.00 |
| $\mathbf{1 7}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 8}$ | - | - | 1.00 | 1.00 | 1.25 | - | 1.00 | - | - | 1.00 |
| $\mathbf{1 9}$ | - | - | 1.00 | - | 1.00 | - | 1.00 | - | - | - |
| $\mathbf{2 0}$ | - | - | 1.00 | - | 1.25 | 1.00 | 1.00 | - | - | - |
| $\mathbf{2 1}$ | 1.00 | - | 1.00 | - | 1.50 | - | 1.00 | - | - | 1.00 |
| $\mathbf{2 2}$ | 1.00 | 1.00 | 1.00 | - | 1.25 | - | 1.00 | - | - | 1.00 |
| $\mathbf{2 3}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{2 4}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{2 4}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{2 6}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | 1.00 |
| $\mathbf{2 7}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{4 0}$ | - | - | 1.00 | - | 1.00 | 1.00 | - | - | - | 1.00 |
| $\mathbf{4 1}$ | - | - | 1.00 | - | 1.00 | 1.00 | - | - | - | - |
| $\mathbf{4 2}$ | - | - | - | - | 1.00 | - | - | - | - | 1.00 |
| $\mathbf{4 3}$ | - | - | 1.00 | - | 1.00 | - | 1.00 | - | - | - |
| $\mathbf{4 4}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | 1.00 |
| $\mathbf{4 5}$ | - | - | 1.00 | - | 1.25 | - | 1.00 | - | - | 1.00 |
| $\mathbf{9 9}$ | - | - | - | - | - | - | - | - | - | - |


| Residual <br> Mark Shr <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 | 0.00 |
| 1 | 1.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.25 |
| 5 | 1.50 |
| 6 | 1.75 |
| 7 | 2.00 |
| 8 | 2.25 |
| 9 | 2.50 |

4/1/2015 Credit Factors
4/1/16 Indicated - Freeze Methodology

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {L }}$ | Potential Credit Premium | \% $\triangle$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 293,247 | 0.0\% | 437,702,290 | 0.0\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 8,091 | 0.0\% | 10,891,112 | 0.0\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 60,950 | 0.0\% | 115,233,840 | 0.0\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 1,192 | 0.0\% | 1,939,846 | 0.0\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 33,449 | 0.0\% | 116,472,201 | 0.0\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 5,813 | 0.0\% | 14,215,271 | 0.0\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 3,973 | 0.0\% | 14,864,458 | 0.0\% |
| 26 | 65,541 | 372 | 1,115,203 | 372 | 0.0\% | 1,115,203 | 0.0\% |
| 30 | 62,038 | 523 | 798,566 | 523 | 0.0\% | 798,566 | 0.0\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 19,116 | 0.0\% | 4,231,745 | 0.0\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 426,727 | 0.0\% | 717,464,534 | 0.0\% |

\% of Total Mkt. Exp. $\quad 9.5 \% \quad 9.5 \%$

| Estimated Credits Used $678,766,758$ <br> Credit Utilization $94.6 \%$ | Estimated Credits Used Credit Utilization | $\begin{gathered} 678,766,758 \\ 94.6 \% \end{gathered}$ |
| :---: | :---: | :---: |
|  | Residual Mark Share Group | Keep Out Credits |
|  | 0 | 0.00 |
|  | 1 | 1.00 |
|  | 2 | 1.00 |
|  | 3 | 1.00 |
|  | 4 | 1.25 |
|  | 5 | 1.50 |
|  | 6 | 1.75 |
|  | 7 | 2.00 |
|  | 8 | 2.25 |
|  | 9 | 2.50 |

4/1/2015 Credit Factors
4/1/16 - Freeze Methodology

| Territory | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium | Credit Eligible <br> Exposures |  | \% | Potential <br> Credit Premium | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Residual <br> Mark Share <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 |  |
| 1 | 0.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.00 |
| 5 | 1.25 |
| 6 | 1.50 |
| 7 | 1.75 |
| 8 | 2.00 |
| 9 | 2.25 |
|  | 2.50 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10
Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.78\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.50\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.80\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.68\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.59\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.08\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.90\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 437,702,290 | 293,247 |
| 23 | 3.63\% | 2.49\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 437,702,290 | 293,247 |
| 25 | 2.15\% | 1.50\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.87\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | - | - |
| 41 | 5.88\% | 3.11\% | 2.57\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.88\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.51\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.33\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 6.64\% | 3.49\% | 2.91\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.43\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15
Freeze Methodology

|  |  | Residual Market Share | Share |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.25\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.91\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 10,891,112 | 8,091 |
| 23 | 2.82\% | 1.98\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,891,112 | 8,091 |
| 25 | 1.73\% | 1.28\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 1.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.91\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17 Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.21\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.54\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.85\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.43\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.83\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.35\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 4.01\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.43\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.71\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 6.18\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 6.94\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.03\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.21\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.70\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 115,233,840 | 60,950 |
| 23 | 8.79\% | 6.11\% | 5.46\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.90\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 115,233,840 | 60,950 |
| 25 | 6.65\% | 4.56\% | 3.40\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.78\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.44\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | - | - |
| 41 | 12.06\% | 6.14\% | 4.77\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.63\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.20\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 12.13\% | 6.63\% | 6.56\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.09\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18
Freeze Methodology

|  |  | Residual Market Share | Share |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.61\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 1.01\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.99\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.49\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2016 | 1,939,846 | 1,192 |
| 23 | 2.12\% | 1.27\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,939,846 | 1,192 |
| 25 | 0.15\% | 1.68\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.26\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | - | - |
| 41 | 7.29\% | 1.64\% | 1.51\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 4.86\% | 3.11\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.97\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20
Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2015=$ <br> 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.35\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.05\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.45\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.72\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.24\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.80\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.16\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.47\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.98\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.24\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 4.73\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.58\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.05\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 13.27\% | 4 | 3 | 3 | 3 | 1.25 | 1.25 | - |  |  |  |
| 16 | 26.59\% | 25.13\% | 19.78\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 10.30\% | 4 | 2 | 2 | 2 | 1.25 | 1.25 | - |  |  |  |
| 18 | 20.86\% | 22.51\% | 13.75\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.09\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 21.63\% | 5 | 4 | 4 | 4 | 1.50 | 1.50 | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.05\% | 6 | 5 | 5 | 5 | 1.75 | 1.75 | - |  |  |  |
| 22 | 33.75\% | 22.17\% | 19.18\% | 6 | 4 | 4 | 4 | 1.75 | 1.75 | - | 2016 | 116,472,201 | 33,449 |
| 23 | 18.35\% | 10.83\% | 8.04\% | 4 | 2 | 2 | 2 | 1.25 | 1.25 | - |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.75\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,472,201 | 33,449 |
| 25 | 13.28\% | 13.16\% | 13.61\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.82\% | 5 | 3 | 3 | 3 | 1.50 | 1.50 | - |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.29\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 40 | 24.85\% | 11.38\% | 12.36\% | 5 | 3 | 3 | 3 | 1.50 | 1.50 | - |  | - | - |
| 41 | 14.09\% | 9.23\% | 9.19\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.10\% | 4 | 3 | 2 | 3 | 1.25 | 1.25 | - |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.66\% | 4 | 3 | 3 | 3 | 1.25 | 1.25 | - |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.98\% | 5 | 3 | 3 | 3 | 1.50 | 1.50 | - |  | 0.0\% | 0.0\% |
| 45 | 20.07\% | 18.11\% | 15.95\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21 Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.45\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.82\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 2.12\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.10\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.73\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.82\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.14\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.89\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.94\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.72\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.59\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.13\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 2.75\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2016 | 14,215,271 | 5,813 |
| 23 | 4.67\% | 4.48\% | 2.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.19\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2015 | 14,215,271 | 5,813 |
| 25 | 2.60\% | 0.00\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.48\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 5.37\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | - | - |
| 41 | 12.53\% | 5.33\% | 4.95\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.25\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.67\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.47\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 10.32\% | 2.31\% | 3.00\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.38\% | 0.00\% | -6.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.33\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25
Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | $\begin{aligned} & \text { Keep } \\ & \text { Out } \\ & \text { Credits } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.30\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.67\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.48\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.99\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.23\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.66\% | 4 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 7.21\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.06\% | 0 | 3 | 2 | 2 | - | - | - |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.27\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.41\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.58\% | 2 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 14,864,458 | 3,973 |
| 23 | 6.30\% | 3.39\% | 1.52\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.15\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2015 | 14,864,458 | 3,973 |
| 25 | 8.64\% | 0.00\% | 2.18\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.08\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 2.86\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 4.94\% | 4.21\% | 4.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.87\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.05\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.46\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 7.15\% | 5.62\% | 6.23\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.73\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26
Freeze Methodology

|  |  | Residual Market Share | Share | Indicated Mkt Share Range |  | Range | Selected Range* | $\begin{gathered} 2015= \\ 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.06\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.49\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2016 | 1,115,203 | 372 |
| 23 | 0.91\% | 1.55\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,115,203 | 372 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.78\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 3.25\% | 1.54\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 5.87\% | 1.57\% | 1.81\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.57\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30
Freeze Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* |  | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.90\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 2.62\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.46\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.44\% | 2 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2016 | 798,566 | 523 |
| 23 | 0.98\% | 1.55\% | 1.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 798,566 | 523 |
| 25 | 1.31\% | 0.80\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.90\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.31\% | 1.05\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.87\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM
Freeze Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $2015=$ <br> 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.58\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.83\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.63\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.25\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.53\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.21\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 5.33\% | 0 | 0 | 1 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.34\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 3.14\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 4,231,745 | 19,116 |
| 23 | 6.85\% | 4.79\% | 4.19\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.74\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - | 2015 | 4,231,745 | 19,116 |
| 25 | 3.76\% | 2.63\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.50\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 6.69\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | - | - |
| 41 | 5.70\% | 3.98\% | 3.52\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.10\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.22\% | 1 | 0 | 0 | 0 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.69\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 7.16\% | 5.59\% | 4.77\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.93\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors Freeze Methodology - Data Through May, 2015


4/1/2016 Credit Offer - Data Through May, 2015 (2013 Rates)
Average of the 2016 Indicated Credit Factors and the 2015 Approved
Summary by Rate Class

4/1/2015 Credit Factors
4/1/16 Proposal (Avg of 2016 Indicated and 2015 Approved)

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% 人 | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 293,247 | 0.0\% | 263,175,548 | -39.9\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 8,091 | 0.0\% | 6,759,746 | -37.9\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 60,950 | 0.0\% | 86,061,775 | -25.3\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 1,192 | 0.0\% | 1,120,257 | -42.3\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 33,449 | 0.0\% | 105,431,984 | -9.5\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 5,813 | 0.0\% | 7,923,154 | -44.3\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 4,043 | 1.7\% | 13,297,344 | -10.5\% |
| 26 | 65,541 | 372 | 1,115,203 | 372 | 0.0\% | 557,601 | -50.0\% |
| 30 | 62,038 | 523 | 798,566 | 523 | 0.0\% | 608,927 | -23.7\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 19,116 | 0.0\% | 2,985,780 | -29.4\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 426,796 | 0.0\% | 487,922,118 | -32.0\% |

$\%$ of Total Mkt. Exp. $\quad 9.5 \% \quad 9.5 \%$

| Estimated Credits Used $678,766,758$ <br> Credit Utilization $94.6 \%$ | Estimated Credits Used Credit Utilization | $\begin{gathered} 458,188,095 \\ 93.9 \% \end{gathered}$ |
| :---: | :---: | :---: |
|  | Residual Mark Share Group | Keep Out Credits |
|  | 0 | 0.00 |
|  | 1 | 1.00 |
|  | 2 | 1.00 |
|  | 3 | 1.00 |
|  | 4 | 1.25 |
|  | 5 | 1.50 |
|  | 6 | 1.75 |
|  | 7 | 2.00 |
|  | 8 | 2.25 |
|  | 9 | 2.50 |

## 4/1/2015 Credit Factors

4/1/16 Proposal (Avg of 2016 and 2015)

| Territory | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium | Credit Eligible <br> Exposures | \% |  | Potential <br> Credit Premium | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Residual <br> Mark Share <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 |  |
| 1 | 0.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.00 |
| 5 | 1.25 |
| 6 | 1.50 |
| 7 | 1.75 |
| 8 | 2.00 |
| 9 | 2.25 |
|  | 2.50 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicate | Mkt Shar | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.78\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.50\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.80\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.68\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.59\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.08\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.90\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 263,175,548 | 293,247 |
| 23 | 3.63\% | 2.49\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 437,702,290 | 293,247 |
| 25 | 2.15\% | 1.50\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | $2.47 \%$ | 2.06\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.87\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | $(174,526,742)$ | - |
| 41 | 5.88\% | 3.11\% | 2.57\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.88\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.51\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.33\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | -39.9\% | 0.0\% |
| 45 | 6.64\% | 3.49\% | 2.91\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.43\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Range | Selected Range* | 2016 Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.25\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.91\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 6,759,746 | 8,091 |
| 23 | 2.82\% | 1.98\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,891,112 | 8,091 |
| 25 | 1.73\% | 1.28\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  | $(4,131,365)$ | - |
| 41 | 1.68\% | 1.28\% | 1.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.91\% | 0 | 0 | 0 | 0 | - | - | - |  | -37.9\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17
Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.21\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.54\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.85\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.43\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.83\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.35\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 4.01\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.43\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.71\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 6.18\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 6.94\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.03\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.21\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.70\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 86,061,775 | 60,950 |
| 23 | 8.79\% | 6.11\% | 5.46\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.90\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 115,233,840 | 60,950 |
| 25 | 6.65\% | 4.56\% | 3.40\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.78\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.44\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(29,172,065)$ | - |
| 41 | 12.06\% | 6.14\% | 4.77\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.63\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.20\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -25.3\% | 0.0\% |
| 45 | 12.13\% | 6.63\% | 6.56\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.09\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.61\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 1.01\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.99\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.49\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2016 | 1,120,257 | 1,192 |
| 23 | 2.12\% | 1.27\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,939,846 | 1,192 |
| 25 | 0.15\% | 1.68\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.26\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | $(819,589)$ | - |
| 41 | 7.29\% | 1.64\% | 1.51\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - |  | -42.3\% | 0.0\% |
| 45 | 4.86\% | 3.11\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.97\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.35\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.05\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.45\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.72\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.24\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.80\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.16\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.47\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.98\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.24\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 4.73\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.58\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.05\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 13.27\% | 4 | 3 | 3 | 3 | 1.13 | 1.25 | (0.13) |  |  |  |
| 16 | 26.59\% | 25.13\% | 19.78\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 10.30\% | 4 | 2 | 2 | 2 | 1.13 | 1.25 | (0.13) |  |  |  |
| 18 | 20.86\% | 22.51\% | 13.75\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.09\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 21.63\% | 5 | 4 | 4 | 4 | 1.38 | 1.50 | (0.13) | Availab | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.05\% | 6 | 5 | 5 | 5 | 1.63 | 1.75 | (0.13) |  |  |  |
| 22 | 33.75\% | 22.17\% | 19.18\% | 6 | 4 | 4 | 4 | 1.50 | 1.75 | (0.25) | 2016 | 105,431,984 | 33,449 |
| 23 | 18.35\% | 10.83\% | 8.04\% | 4 | 2 | 2 | 2 | 1.13 | 1.25 | (0.13) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.75\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,472,201 | 33,449 |
| 25 | 13.28\% | 13.16\% | 13.61\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.82\% | 5 | 3 | 3 | 3 | 1.25 | 1.50 | (0.25) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.29\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 40 | 24.85\% | 11.38\% | 12.36\% | 5 | 3 | 3 | 3 | 1.25 | 1.50 | (0.25) |  | $(11,040,217)$ | - |
| 41 | 14.09\% | 9.23\% | 9.19\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.10\% | 4 | 3 | 2 | 3 | 1.13 | 1.25 | (0.13) |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.66\% | 4 | 3 | 3 | 3 | 1.13 | 1.25 | (0.13) |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.98\% | 5 | 3 | 3 | 3 | 1.25 | 1.50 | (0.25) |  | -9.5\% | 0.0\% |
| 45 | 20.07\% | 18.11\% | 15.95\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer

## Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated | Mkt Share | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.45\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.82\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 2.12\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.10\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.73\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.82\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.14\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.89\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.94\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.72\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.59\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.13\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 22 | 9.88\% | 2.86\% | 2.75\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2016 | 7,923,154 | 5,813 |
| 23 | 4.67\% | 4.48\% | 2.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.19\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2015 | 14,215,271 | 5,813 |
| 25 | 2.60\% | 0.00\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.48\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 5.37\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(6,292,117)$ | - |
| 41 | 12.53\% | 5.33\% | 4.95\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.25\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | Percent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.67\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.47\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | -44.3\% | 0.0\% |
| 45 | 10.32\% | 2.31\% | 3.00\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 99 | 0.38\% | 0.00\% | -6.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.33\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer

## Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25

Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.30\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.67\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.48\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.27\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.99\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.23\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.66\% | 4 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 7.21\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.06\% | 0 | 3 | 2 | 2 | 0.50 | - | 0.50 |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.27\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availab | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.41\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.58\% | 2 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 13,297,344 | 4,043 |
| 23 | 6.30\% | 3.39\% | 1.52\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.15\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2015 | 14,864,458 | 3,973 |
| 25 | 8.64\% | 0.00\% | 2.18\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.08\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 2.86\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,567,115)$ | 69 |
| 41 | 4.94\% | 4.21\% | 4.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.05\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.46\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  | -10.5\% | 1.7\% |
| 45 | 7.15\% | 5.62\% | 6.23\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.73\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.06\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.49\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2016 | 557,601 | 372 |
| 23 | 0.91\% | 1.55\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,115,203 | 372 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.78\% | 0 | 0 | 0 | 0 | - | - | - |  | $(557,601)$ | - |
| 41 | 3.25\% | 1.54\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  | -50.0\% | 0.0\% |
| 45 | 5.87\% | 1.57\% | 1.81\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - |  |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.57\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.90\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 2.62\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.46\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.44\% | 2 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2016 | 608,927 | 523 |
| 23 | 0.98\% | 1.55\% | 1.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 798,566 | 523 |
| 25 | 1.31\% | 0.80\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.90\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  | $(189,639)$ | - |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - |  | -23.7\% | 0.0\% |
| 45 | 2.31\% | 1.05\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.87\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer

## Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM

 Average of 2016 Indicated Credit Factors and 2015 Approved Credit Factors|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.58\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.83\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.63\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.25\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.53\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.21\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 5.33\% | 0 | 0 | 1 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.34\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 3.14\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 2,985,780 | 19,116 |
| 23 | 6.85\% | 4.79\% | 4.19\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.74\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) | 2015 | 4,231,745 | 19,116 |
| 25 | 3.76\% | 2.63\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.50\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 6.69\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(1,245,965)$ | - |
| 41 | 5.70\% | 3.98\% | 3.52\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.10\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.22\% | 1 | 0 | 0 | 0 | 0.50 | 1.00 | (0.50) |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.69\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -29.4\% | 0.0\% |
| 45 | 7.16\% | 5.59\% | 4.77\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.93\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors - Avg of 2015 Approved and 2016 Proposed - Data Through May, 2015

| Rate Class Group |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | $\mathbf{1 0}$ | $\mathbf{1 5}$ | $\mathbf{1 7}$ | $\mathbf{1 8}$ | $\mathbf{2 0}$ | $\mathbf{2 1}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{3 0}$ | MC/Misc. |  |
| $\mathbf{1}$ | - | - | - | - | - | - | - | - | - | - |  |
| $\mathbf{2}$ | - | - | - | - | 0.50 | - | - | - | - | - |  |
| $\mathbf{3}$ | - | - | - | - | 0.50 | - | - | - | - | - |  |
| $\mathbf{4}$ | - | - | - | - | 0.50 | - | - | - | - | - |  |
| $\mathbf{5}$ | - | - | - | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{6}$ | - | - | - | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{7}$ | - | - | 0.50 | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{8}$ | - | - | 0.50 | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{9}$ | - | - | 0.50 | - | 1.00 | 0.50 | - | - | - | - |  |
| $\mathbf{1 0}$ | - | - | 0.50 | - | 1.00 | 0.50 | - | - | - | - |  |
| $\mathbf{1 1}$ | - | - | - | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{1 2}$ | - | - | 0.50 | - | 1.00 | - | - | - | - | - |  |
| $\mathbf{1 3}$ | - | - | 1.00 | - | 1.00 | 0.50 | - | - | - | 0.50 |  |
| $\mathbf{1 4}$ | - | - | 1.00 | - | 1.00 | 0.50 | 1.00 | - | - | 0.50 |  |
| $\mathbf{1 5}$ | - | - | 1.00 | - | 1.13 | 0.50 | 1.00 | - | 1.00 | 1.00 |  |
| $\mathbf{1 6}$ | 0.50 | - | 1.00 | - | 1.50 | 1.00 | 0.50 | - | 0.50 | 1.00 |  |
| $\mathbf{1 7}$ | - | - | 1.00 | - | 1.13 | - | - | - | - | - |  |
| $\mathbf{1 8}$ | 0.50 | - | 1.00 | 1.00 | 1.25 | 0.50 | 1.00 | - | - | 1.00 |  |
| $\mathbf{1 9}$ | - | - | 1.00 | - | 1.00 | 0.50 | 0.50 | - | - | - |  |
| $\mathbf{2 0}$ | 0.50 | - | 1.00 | - | 1.38 | 1.00 | 1.00 | - | - | - |  |
| $\mathbf{2 1}$ | 1.00 | 0.50 | 1.00 | - | 1.63 | 0.50 | 1.00 | - | - | 1.00 |  |
| $\mathbf{2 2}$ | 1.00 | 1.00 | 1.00 | 0.50 | 1.50 | 0.50 | 1.00 | 0.50 | 0.50 | 1.00 |  |
| $\mathbf{2 3}$ | - | - | 1.00 | - | 1.13 | - | 0.50 | - | - | 0.50 |  |
| $\mathbf{2 4}$ | - | - | - | - | 1.00 | 0.50 | 0.50 | - | - | 0.50 |  |
| $\mathbf{2 4}$ | - | - | 0.50 | - | 1.00 | - | 0.50 | - | - | - |  |
| $\mathbf{2 6}$ | - | - | 1.00 | - | 1.25 | 0.50 | 0.50 | - | - | 1.00 |  |
| $\mathbf{2 7}$ | - | - | - | - | 0.50 | - | - | - | - | - |  |
| $\mathbf{4 0}$ | 0.50 | - | 1.00 | 0.50 | 1.25 | 1.00 | - | - | - | 1.00 |  |
| $\mathbf{4 1}$ | 0.50 | - | 1.00 | 0.50 | 1.00 | 1.00 | - | - | - | 0.50 |  |
| $\mathbf{4 2}$ | 0.50 | - | 0.50 | - | 1.13 | 0.50 | - | - | - | 1.00 |  |
| $\mathbf{4 3}$ | 0.50 | - | 1.00 | - | 1.13 | 0.50 | 1.00 | - | - | 0.50 |  |
| $\mathbf{4 4}$ | 0.50 | - | 1.00 | - | 1.25 | 0.50 | 0.50 | - | - | 1.00 |  |
| $\mathbf{4 5}$ | 0.50 | - | 1.00 | - | 1.25 | 0.50 | 1.00 | 0.50 | - | 1.00 |  |
| $\mathbf{9 9}$ | - | - | - | - | - | - | - | - | - | - |  |


| Residual <br> Mark Shr | Keep <br> Out |
| :---: | :---: |
| Group | Credits |
| 0 | 0.00 |
| 1 | 1.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.25 |
| 5 | 1.50 |
| 6 | 1.75 |
| 7 | 2.00 |
| 8 | 2.25 |
| 9 | 2.50 |

4/1/2015 Credit Factors

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium |
| :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 |
| 15 | 782,127 | 8,091 | 10,891,112 |
| 17 | 144,383 | 60,950 | 115,233,840 |
| 18 | 55,019 | 1,192 | 1,939,846 |
| 20 | 34,282 | 33,449 | 116,472,201 |
| 21 | 15,499 | 5,813 | 14,215,271 |
| 25 | 74,621 | 3,973 | 14,864,458 |
| 26 | 65,541 | 372 | 1,115,203 |
| 30 | 62,038 | 523 | 798,566 |
| M/M | 166,422 | 19,116 | 4,231,745 |
| Total | 4,470,398 | 426,727 | 717,464,534 |

4/1/16 Indicated - Relative Ranges

| Credit Eligible <br> Exposures |  |  |
| :---: | :---: | :---: |
|  |  | $\underline{\%} \Delta$ |
| 177,060 |  | $-39.6 \%$ |
| 8,091 |  | $0.0 \%$ |
| 74,161 |  | $21.7 \%$ |
| 837 | $-29.8 \%$ |  |
| 32,840 | $-1.8 \%$ |  |
| 5,223 | $-10.2 \%$ |  |
| 5,294 | $33.2 \%$ |  |
| 0 | $-100.0 \%$ |  |
| 683 |  | $30.6 \%$ |
| 25,097 |  | $31.3 \%$ |
| $\mathbf{3 2 9 , 2 8 6}$ | $\mathbf{- 2 2 . 8 \%}$ |  |


| Potential <br> Credit Premium | $\underline{\%} \Delta$ |  |
| :---: | :---: | :---: |
|  |  |  |
| $268,921,714$ | $-38.6 \%$ |  |
| $10,891,112$ | $0.0 \%$ |  |
| $135,542,517$ | $17.6 \%$ |  |
| $1,483,660$ | $-23.5 \%$ |  |
| $107,306,845$ | $-7.9 \%$ |  |
| $12,527,213$ | $-11.9 \%$ |  |
| $19,125,780$ | $28.7 \%$ |  |
| 0 | $-100.0 \%$ |  |
| 998,014 | $25.0 \%$ |  |
| $5,302,995$ | $25.3 \%$ |  |
| $562,099,849$ | $-21.7 \%$ |  |

\% of Total Mkt. Exp.
7.4\%

## Estimated Credits Used Credit Utilization

678,766,758
94.6\%

|  | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 678,766,758 } \\ 94.6 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 529,065,469 } \\ 94.1 \% \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original Ranges: |  |  |  | Relative Ranges: |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0 | 0.05 | 0 | 0 | 0 | 0.035 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.035 | 0.065 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.065 | 0.095 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.095 | 0.155 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.335 | 0.395 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.47 | 1 | 2.5 | 9 | 0.455 | 1 | 2.5 |

529,065,469
1.38\% Current Residual Market Rate Using Data Through May, 2015
2.0\% Target Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
5.0\% Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.0)=.69$
2. Round the result from 1. above to the nearest 10 th $=.7$
3. Multiply the result from 2. above by the original average residual market share threshold (. $7 \times .05$ ) $=3.5$
4. Use the same increment for bands as original methodology: .03 for first two bands, .06 for all remaining bands

## 4/1/2015 Credit Factors

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible <br> Exposures | \% $\triangle$ | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 178,846 | 0 | 0 | 715 | 0.0\% | 1,332,259 | 0.0\% |
| 2 | 240,517 | 1,071 | 2,136,317 | 1,071 | 0.0\% | 2,136,317 | 0.0\% |
| 3 | 516,709 | 2,389 | 4,958,166 | 2,389 | 0.0\% | 4,958,166 | 0.0\% |
| 4 | 328,044 | 1,323 | 3,128,040 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 503,612 | 2,979 | 6,640,413 | 2,979 | 0.0\% | 6,640,413 | 0.0\% |
| 6 | 337,265 | 1,686 | 4,381,658 | 12,091 | 617.0\% | 18,961,893 | 332.8\% |
| 7 | 346,203 | 13,242 | 21,955,577 | 13,242 | 0.0\% | 21,955,577 | 0.0\% |
| 8 | 198,142 | 6,783 | 11,898,661 | 6,783 | 0.0\% | 11,898,661 | 0.0\% |
| 9 | 197,535 | 8,959 | 16,771,593 | 8,248 | -7.9\% | 15,432,923 | -8.0\% |
| 10 | 95,365 | 4,425 | 8,333,668 | 4,425 | 0.0\% | 8,333,668 | 0.0\% |
| 11 | 72,051 | 622 | 2,067,094 | 2,417 | 288.5\% | 5,708,737 | 176.2\% |
| 12 | 193,543 | 7,214 | 14,969,401 | 13,522 | 87.4\% | 17,914,144 | 19.7\% |
| 13 | 209,132 | 17,789 | 26,280,639 | 17,789 | 0.0\% | 26,280,639 | 0.0\% |
| 14 | 71,888 | 6,624 | 14,066,453 | 6,624 | 0.0\% | 14,066,453 | 0.0\% |
| 15 | 25,481 | 2,572 | 5,523,585 | 2,867 | 11.5\% | 5,688,474 | 3.0\% |
| 16 | 13,716 | 12,349 | 19,409,286 | 12,349 | 0.0\% | 19,409,286 | 0.0\% |
| 17 | 17,221 | 394 | 935,879 | 394 | 0.0\% | 856,049 | -8.5\% |
| 18 | 16,024 | 13,819 | 20,313,141 | 13,819 | 0.0\% | 20,313,141 | 0.0\% |
| 19 | 15,535 | 507 | 1,369,708 | 882 | 74.0\% | 1,671,462 | 22.0\% |
| 20 | 17,850 | 14,698 | 22,950,553 | 15,231 | 3.6\% | 23,368,735 | 1.8\% |
| 21 | 47,126 | 45,990 | 92,918,729 | 45,990 | 0.0\% | 91,571,764 | -1.4\% |
| 22 | 15,070 | 15,070 | 32,426,892 | 14,810 | -1.7\% | 31,059,375 | -4.2\% |
| 23 | 44,947 | 2,840 | 7,306,664 | 2,866 | 0.9\% | 6,486,093 | -11.2\% |
| 24 | 24,678 | 1,240 | 2,582,239 | 1,943 | 56.7\% | 3,802,615 | 47.3\% |
| 25 | 16,489 | 501 | 1,420,658 | 455 | -9.2\% | 1,274,253 | -10.3\% |
| 26 | 21,310 | 1,627 | 4,331,949 | 1,576 | -3.1\% | 3,137,029 | -27.6\% |
| 27 | 410,054 | 1,599 | 2,794,681 | 1,599 | 0.0\% | 2,794,681 | 0.0\% |
| 40 | 20,429 | 16,563 | 22,445,108 | 16,623 | 0.4\% | 22,306,107 | -0.6\% |
| 41 | 58,493 | 50,381 | 59,922,425 | 6,248 | -87.6\% | 10,851,958 | -81.9\% |
| 42 | 73,196 | 59,487 | 96,870,257 | 60,347 | 1.4\% | 98,704,558 | 1.9\% |
| 43 | 47,219 | 39,711 | 65,489,722 | 4,743 | -88.1\% | 10,561,932 | -83.9\% |
| 44 | 33,392 | 29,611 | 38,826,123 | 29,229 | -1.3\% | 37,139,457 | -4.3\% |
| 45 | 50,680 | 42,661 | 82,039,256 | 5,020 | -88.2\% | 15,483,030 | -81.1\% |
| 99 | 12,637 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 329,286 | -22.8\% | 562,099,849 | -21.7\% |
| \% of Total Mkt. Exp. |  | 9.5\% |  | 7.4\% |  |  |  |

Relative Ranges:

| Group |  | Lower |
| :---: | :---: | :---: |
|  |  | 0 |
| 1 |  | 0.035 |
| 2 |  | 0.065 |
| 3 |  | 0.095 |
| 4 |  | 0.155 |
| 5 | 0.215 |  |
| 6 | 0.275 |  |
| 7 | 0.335 |  |
| 8 | 0.395 |  |
| 9 | 0.455 |  |


| Upper | Factor |
| :---: | :---: |
| $\mathbf{0 . 0 3 5}$ | 0 |
| 0.065 | 1 |
| 0.095 | 1 |
| 0.155 | 1 |
| 0.215 | 1.25 |
| 0.275 | 1.5 |
| 0.335 | 1.75 |
| 0.395 | 2 |
| 0.455 | 2.25 |
| 1 | 2.5 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10
Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.78\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.52\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.28\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.19\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.50\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.80\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.59\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.08\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.90\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 268,921,714 | 177,060 |
| 23 | 3.63\% | 2.49\% | 1.85\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 437,702,290 | 293,247 |
| 25 | 2.15\% | 1.50\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.06\% | 1 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.87\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | $(168,780,576)$ | $(116,187)$ |
| 41 | 5.88\% | 3.11\% | 2.57\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.88\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.51\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.33\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -38.6\% | -39.6\% |
| 45 | 6.64\% | 3.49\% | 2.91\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.43\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.25\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.91\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 10,891,112 | 8,091 |
| 23 | 2.82\% | 1.98\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,891,112 | 8,091 |
| 25 | 1.73\% | 1.28\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 1.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.91\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17 Relative Range Methodology

|  | Residual Market Share |  |  | Indicate | Mkt Shar | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \\ \hline \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \\ \hline \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.21\% | 1 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.54\% | 1 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.16\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.85\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.43\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.83\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.35\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.71\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 12 | 5.90\% | 4.74\% | 4.01\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.71\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 6.18\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 6.94\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.03\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - | Avail | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.21\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.70\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - | 2016 | 135,542,517 | 74,161 |
| 23 | 8.79\% | 6.11\% | 5.46\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.90\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | 2015 | 115,233,840 | 60,950 |
| 25 | 6.65\% | 4.56\% | 3.40\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.78\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.44\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 20,308,677 | 13,211 |
| 41 | 12.06\% | 6.14\% | 4.77\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.63\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.43\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.20\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 17.6\% | 21.7\% |
| 45 | 12.13\% | 6.63\% | 6.56\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.09\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18 Relative Range Methodology

|  | Residu | al Market | Share | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.61\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 1.01\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.77\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.02\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.99\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.44\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.08\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.49\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 1,483,660 | 837 |
| 23 | 2.12\% | 1.27\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.85\% | 1 | 0 | 0 | 0 | - | - | - | 2015 | 1,939,846 | 1,192 |
| 25 | 0.15\% | 1.68\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.12\% | 1 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.26\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(456,186)$ | (355) |
| 41 | 7.29\% | 1.64\% | 1.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - |  | -23.5\% | -29.8\% |
| 45 | 4.86\% | 3.11\% | 2.34\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.97\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20
Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ |  | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  | Change |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.35\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.05\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.45\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.72\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.24\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.80\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.16\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.47\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.98\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.24\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 4.73\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.58\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.05\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 13.27\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 16 | 26.59\% | 25.13\% | 19.78\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 10.30\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 18 | 20.86\% | 22.51\% | 13.75\% | 4 | 5 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.09\% | 3 | 4 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 21.63\% | 5 | 4 | 5 | 5 | 1.50 | 1.50 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.05\% | 6 | 5 | 5 | 5 | 1.50 | 1.75 | (0.25) |  |  |  |
| 22 | 33.75\% | 22.17\% | 19.18\% | 7 | 5 | 4 | 5 | 1.50 | 1.75 | (0.25) | 2016 | 107,306,845 | 32,840 |
| 23 | 18.35\% | 10.83\% | 8.04\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.75\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,472,201 | 33,449 |
| 25 | 13.28\% | 13.16\% | 13.61\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.82\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.29\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 40 | 24.85\% | 11.38\% | 12.36\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | $(9,165,356)$ | (609) |
| 41 | 14.09\% | 9.23\% | 9.19\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.10\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.66\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.98\% | 5 | 4 | 3 | 4 | 1.25 | 1.50 | (0.25) |  | -7.9\% | -1.8\% |
| 45 | 20.07\% | 18.11\% | 15.95\% | 4 | 4 | 4 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21 Relative Range Methodology

|  | Residu | al Market | Share | Indicated | Mkt Sh | Range | Selected Range* | 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.45\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.02\% | 1 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.82\% | 1 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.07\% | 1 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 2.12\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.10\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.32\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.73\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.82\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.14\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.89\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.94\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.72\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.59\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.13\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 2.75\% | 3 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 12,527,213 | 5,223 |
| 23 | 4.67\% | 4.48\% | 2.39\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,215,271 | 5,813 |
| 25 | 2.60\% | 0.00\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 5.37\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | $(1,688,058)$ | (590) |
| 41 | 12.53\% | 5.33\% | 4.95\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.25\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.67\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.47\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -11.9\% | -10.2\% |
| 45 | 10.32\% | 2.31\% | 3.00\% | 3 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.38\% | 0.00\% | -6.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.33\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.30\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.67\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.48\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.27\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.27\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.99\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.23\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.66\% | 4 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.05\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 7.21\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.06\% | 1 | 3 | 2 | 2 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.27\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availa | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.41\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.58\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 19,125,780 | 5,294 |
| 23 | 6.30\% | 3.39\% | 1.52\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.15\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,864,458 | 3,973 |
| 25 | 8.64\% | 0.00\% | 2.18\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.08\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 2.86\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  | 4,261,321 | 1,321 |
| 41 | 4.94\% | 4.21\% | 4.76\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.87\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  | Percent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.05\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.46\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | 28.7\% | 33.2\% |
| 45 | 7.15\% | 5.62\% | 6.23\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.73\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26
Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.52\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.01\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.06\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,115,203 | 372 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.78\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,115,203)$ | (372) |
| 41 | 3.25\% | 1.54\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 2.71\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.81\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - |  |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.57\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep <br> Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.90\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 2.62\% | 1 | 2 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.46\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.44\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 998,014 | 683 |
| 23 | 0.98\% | 1.55\% | 1.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 798,566 | 523 |
| 25 | 1.31\% | 0.80\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.90\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  | 199,448 | 160 |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.40\% | 1 | 0 | 0 | 0 | - | - | - |  | 25.0\% | 30.6\% |
| 45 | 2.31\% | 1.05\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.87\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
PAGE 12 OF 13
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.58\% | 1 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.98\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.16\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.83\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.63\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.25\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.53\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.02\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.21\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.82\% | 1 | 0 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 20 | 4.03\% | 4.17\% | 5.33\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.34\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 3.14\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 5,302,995 | 25,097 |
| 23 | 6.85\% | 4.79\% | 4.19\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.74\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2015 | 4,231,745 | 19,116 |
| 25 | 3.76\% | 2.63\% | 2.34\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.50\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 6.69\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | 1,071,249 | 5,981 |
| 41 | 5.70\% | 3.98\% | 3.52\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.10\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.22\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.69\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | 25.3\% | 31.3\% |
| 45 | 7.16\% | 5.59\% | 4.77\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.93\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors Relative Range Methodology - Data Through May, 2015


## Commonwealth Automobile Reinsurers

## MAIP 3 Year Loss Ratio (CAR ID 9)

## Data through March, 2015

|  | Rate Class Gro |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 75.17\% | 152.42\% | 110.97\% | 86.80\% | 126.81\% | 44.10\% | 37.42\% | 25.13\% | 85.81\% | 163.66\% | 83.16\% |
| 2 | .08 | 4.63\% | 80.29\% | 30.06\% | 50.07\% | 33.46\% | 111.05\% | 8.85\% | 64.62\% | 93.76\% | 80.69\% |
| 3 | 86.46\% | 139.37\% | 86.88\% | 105.48\% | 57.50\% | 95.27\% | 84.00\% | 48.40\% | 53.25\% | 120.40\% | 87.55\% |
| 4 | 92.66\% | 92.36\% | 67.54\% | 37.56\% | 57.74\% | 92.22\% | 68.01\% | 59.31\% | 144.95\% | 103.85\% | 87.24\% |
| 5 | 84.32\% | 144.85\% | 65.25\% | 65.66\% | 63.46\% | 118.35\% | 78.42\% | 69.87\% | 115.30\% | 66.82\% | 83.03\% |
| 6 | 81.24\% | 99.67\% | 74.64\% | 97.19\% | 73.09\% | 29.28\% | 54.97\% | 79.57\% | 65.75\% | 78.65\% | 79.36\% |
| 7 | 86.43\% | 115.57\% | 66.44\% | 65.89\% | 68.65\% | 63.06\% | 67.87\% | 48.60\% | 80.05\% | 171.83\% | 8.71\% |
| 8 | 86.45\% | 97.10\% | 87.20\% | 47.67\% | 74.94\% | 59.82\% | 63.74\% | 83.42\% | 112.13\% | 80.18\% | 85.10\% |
| 9 | 83.99\% | 1.25\% | 75.94\% | 103.88\% | 97.07\% | 87.97\% | 30.32\% | 86.96\% | 34.84\% | 94.26\% | 82.05\% |
| 10 | 78.84\% | 41.04\% | 65.48\% | 25.81\% | 61.92\% | 116.58\% | 63.51\% | 170.07\% | 102.10\% | 125.56\% | 76.83\% |
| 11 | 94.06\% | 55.22\% | 70.91\% | 15.33\% | 93.45\% | 67.59\% | 46.39\% | 15.76\% | 77.42\% | 79.54\% | 87.13\% |
| 12 | 85.02\% | 81.91\% | 85.50\% | 125.45\% | 67.20\% | 56.20\% | 110.53\% | 91.45\% | 148.17\% | 95.79\% | 85.57\% |
| 13 | 83.40\% | 115.07\% | 73.24\% | 3.88\% | 68.01\% | 63.79\% | 67.35\% | 58.73\% | 46.65\% | 88.22\% | .99\% |
| 14 | 84.23\% | 80.92\% | 82.98\% | 60.42\% | 72.73\% | 85.80\% | 73.00\% | 11.68\% | 91.96\% | 148.41\% | 82.93\% |
| 15 | 85.37\% | 6.52\% | 51.20\% | 31.19\% | 58.93\% | 104.94\% | 42.86\% | 63.91\% | 96.69\% | 95.39\% | .53\% |
| 16 | 81.96\% | 45.35\% | 43.96\% | 0.00\% | 44.18\% | 40.23\% | 156.60\% | 0.00\% | 25.37\% | 116.65\% | 70.85\% |
| 17 | 80.85\% | 3\% | 148.97\% | 160.47\% | 28.20\% | 41.55\% | 31.47\% | 22.55\% | 157.44\% | 93.37\% | 86.14\% |
| 18 | 113.47\% | 97.52\% | 76.08\% | 54.48\% | 69.65\% | 3.62\% | 35.71\% | 48.30\% | 39.63\% | 375.36\% | 104.04\% |
| 19 | 102.18\% | 69.48\% | 61.47\% | 13.32\% | 156.82\% | 6.33\% | 55.99\% | 0.00\% | 14.73\% | 115.47\% | 97.99\% |
| 20 | 109.12 | 206.07\% | 102.25\% | 236.25\% | 8.39 | 54.12\% | 85.80\% | 93.24\% | 119.00\% | 72.05\% | 109.65\% |
| 21 | 90.26\% | 94.27\% | 90.25 | 87.31\% | 86.99\% | 104.47\% | 118.33\% | 24.30\% | 41.69\% | 191.06\% | 90.90\% |
| 22 | 85.13 | 96.66\% | 89.32\% | 118.20\% | 103.84\% | 149.58\% | 43.60\% | 346.44\% | 16.30\% | 64.11\% | 88.77\% |
| 23 | 104.50\% | 127.54\% | 39.82\% | 329.52\% | 69.66\% | 186.47\% | 57.90\% | 33.41\% | 124.19\% | 216.51\% | 98.91\% |
| 24 | 93.14\% | 10.4 | 56.27\% | 11.42\% | 55.31\% | 5.15 | 189.63\% | 84.14\% | 82.05 | 261.89\% | 34\% |
| 25 | 70.55\% | 67.70\% | 108.59\% | 74.85\% | 96.55\% | 62.33\% | 8.03\% | 0.00\% | 0.00\% | 270.79\% | 75.28\% |
| 26 | 68.82\% | 207.86 | 56.09\% | 140.64\% | 76.38 | 6.07\% | 133.40\% | 37.65\% | 339.15\% | 82.7 | 77.74\% |
| 27 | 75.93\% | 94.01\% | 92.17\% | 106.70\% | 84.37\% | 154.17\% | 61.69\% | 64.87\% | 96.34\% | 49.11\% | 78.82\% |
| 40 | 68.55\% | 104.34 | 57.66 | 9.23 | 75.36\% | 20.96\% | 37.99\% | 401.38\% | 74.41\% | 80.56 | 69.46\% |
| 41 | 68.09\% | 148.35\% | 44.75\% | 67.00\% | 57.93\% | 65.93\% | 106.51\% | 72.76\% | 10.82\% | 104.59\% | 67.54\% |
| 42 | 86.96\% | 134.01\% | 61.70\% | 66.85\% | 96.32\% | 17.84\% | 55.64\% | 208.66\% | 97.54\% | 155.28\% | 88.93\% |
| 43 | 87.26\% | 181.69\% | 48.34\% | 34.02\% | 77.42\% | 86.34\% | 101.28\% | 38.13\% | 0.00\% | 200.35\% | 86.30\% |
| 44 | 65.43\% | 92.65\% | 49.82\% | 129.30\% | 72.77\% | 49.57\% | 86.29\% | 66.25\% | 1.09\% | 157.52\% | 66.91\% |
| 45 | 109.14\% | 104.07\% | 128.08\% | 126.30\% | 144.44\% | 153.27\% | 95.53\% | 159.07\% | 86.24\% | 103.88\% | 115.18\% |
| 99 | 151.58\% | 255.30\% | 36.54\% | 549.70\% | 0.00\% | 0.00\% | 63.79\% | 0.00\% | 76.82\% | 0.00\% | 111.99\% |
| Total | 85.64\% | 107.59\% | 75.53\% | 88.00\% | 78.75\% | 77.84\% | 72.91\% | 70.60\% | 88.58\% | 113.15 | 84.98\% |

Notes:

(1) Earned Premium : reflects policies effective April 2012 - March 2015 valued at March, 2015
(2) Reported Incurred Losses: reflects policies effective April 2012 - March 2015 valued at March, 2015
(3) Credit Factors: use approved 4/1/2014 credits
(4) Residual Market Share: based on exposure data reflecting policies effective April 2014 - March 2015 valued at March, 2015

# Voluntary 3 Year Loss Ratio (CAR ID 1,8) 

Data through March, 2015

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 56.33\% | 69.36\% | 68.77\% | 54.83\% | 56.45\% | 271.32\% | 64.68\% | 58.55\% | 60.51\% | 31.70\% | 59.37\% |
| 2 | 56.87\% | 70.81\% | 69.85\% | 51.73\% | 58.76\% | 232.79\% | 58.48\% | 60.48\% | 62.38\% | 28.86\% | 59.72\% |
| 3 | 58.23\% | 66.45\% | 62.55\% | 60.09\% | 61.13\% | 249.31\% | 59.34\% | 66.80\% | 61.68\% | 31.25\% | 60.07\% |
| 4 | 59.45\% | 68.81\% | 59.99\% | 53.75\% | 63.61\% | 278.23\% | 61.83\% | 63.61\% | 59.03\% | 33.92\% | 61.31\% |
| 5 | 59.94\% | 66.31\% | 66.27\% | 64.99\% | 48.78\% | 288.99\% | 59.70\% | 72.36\% | 64.88\% | 34.28\% | 61.76\% |
| 6 | 58.21\% | 70.81\% | 63.00\% | 64.90\% | 54.98\% | 214.71\% | 55.93\% | 60.98\% | 61.04\% | 33.98\% | 60.34\% |
| 7 | 57.97\% | 67.54\% | 63.14\% | 54.31\% | 52.86\% | 259.22\% | 60.32\% | 76.34\% | 61.82\% | 29.15\% | 60.26\% |
| 8 | 59.56\% | 70.32\% | 60.90\% | 54.07\% | 57.77\% | 254.70\% | 63.78\% | 70.15\% | 63.58\% | 33.66\% | 62.06\% |
| 9 | 59.27\% | 64.98\% | 61.52\% | 67.25\% | 55.06\% | 282.36\% | 61.89\% | 75.40\% | 66.97\% | 28.95\% | 61.21\% |
| 10 | 59.70\% | 72.22\% | 57.61\% | 54.00\% | 66.85\% | 267.07\% | 65.08\% | 64.99\% | 55.90\% | 28.01\% | 61.87\% |
| 11 | 53.98\% | 80.76\% | 52.24\% | 58.00\% | 49.40\% | 271.19\% | 47.46\% | 58.11\% | 53.07\% | 28.98\% | 58.37\% |
| 12 | 58.78\% | 69.78\% | 57.56\% | 57.76\% | 55.87\% | 207.88\% | 60.30\% | 70.28\% | 63.27\% | 37.62\% | 61.08\% |
| 13 | 64.18\% | 75.43\% | 60.07\% | 59.24\% | 59.83\% | 272.33\% | 66.45\% | 95.96\% | 68.48\% | 29.03\% | 66.44\% |
| 14 | 64.23\% | 70.00\% | 60.98\% | 57.70\% | 65.19\% | 214.95\% | 70.71\% | 75.25\% | 59.35\% | 53.59\% | 66.45\% |
| 15 | 62.30\% | 67.40\% | 57.39\% | 52.35\% | 71.56\% | 311.44\% | 77.35\% | 101.66\% | 72.25\% | 42.73\% | 65.56\% |
| 16 | 62.93\% | 61.83\% | 55.99\% | 58.85\% | 55.40\% | 294.14\% | 60.32\% | 127.37\% | 70.57\% | 18.86\% | 64.04\% |
| 17 | 60.76\% | 76.17\% | 67.03\% | 52.59\% | 103.79\% | 157.63\% | 68.09\% | 61.38\% | 87.81\% | 22.22\% | 63.97\% |
| 18 | 65.24\% | 72.02\% | 58.24\% | 80.26\% | 101.84\% | 293.08\% | 76.48\% | 94.75\% | 65.78\% | 34.16\% | 68.60\% |
| 19 | 47.63\% | 63.87\% | 58.18\% | 86.51\% | 71.15\% | 241.58\% | 58.07\% | 76.61\% | 25.92\% | 23.61\% | 51.54\% |
| 20 | 70.53\% | 76.29\% | 59.98\% | 86.51\% | 105.37\% | 325.82\% | 73.57\% | 88.47\% | 68.62\% | 34.84\% | 74.26\% |
| 21 | 69.20\% | 71.73\% | 74.01\% | 63.29\% | 73.93\% | 330.32\% | 73.69\% | 115.77\% | 52.54\% | 44.68\% | 72.81\% |
| 22 | 69.96\% | 76.63\% | 61.96\% | 84.34\% | 72.64\% | 418.15\% | 77.31\% | 120.94\% | 30.45\% | 37.47\% | 74.32\% |
| 23 | 51.01\% | 73.57\% | 65.75\% | 54.33\% | 66.67\% | 248.35\% | 52.94\% | 77.92\% | 44.04\% | 21.20\% | 55.33\% |
| 24 | 51.40\% | 75.76\% | 49.02\% | 57.47\% | 37.59\% | 256.78\% | 60.05\% | 118.08\% | 68.93\% | 17.54\% | 54.34\% |
| 25 | 44.65\% | 60.83\% | 71.17\% | 46.39\% | 73.16\% | 327.58\% | 37.53\% | 106.54\% | 57.01\% | 22.79\% | 48.28\% |
| 26 | 53.50\% | 78.76\% | 65.84\% | 65.92\% | 57.23\% | 216.23\% | 85.88\% | 104.39\% | 53.39\% | 26.13\% | 58.12\% |
| 27 | 58.33\% | 63.45\% | 63.16\% | 60.37\% | 56.68\% | 252.74\% | 61.03\% | 67.61\% | 57.49\% | 23.89\% | 59.49\% |
| 40 | 53.99\% | 63.31\% | 51.23\% | 54.09\% | 48.91\% | 226.76\% | 69.52\% | 71.86\% | 47.90\% | 28.81\% | 56.17\% |
| 41 | 55.60\% | 63.49\% | 56.39\% | 57.71\% | 60.58\% | 198.65\% | 56.83\% | 78.23\% | 81.60\% | 26.02\% | 58.04\% |
| 42 | 61.60\% | 68.14\% | 61.34\% | 65.47\% | 70.70\% | 319.49\% | 71.02\% | 116.82\% | 54.00\% | 28.68\% | 64.92\% |
| 43 | 65.52\% | 63.11\% | 69.75\% | 57.21\% | 57.64\% | 289.62\% | 56.62\% | 86.23\% | 70.35\% | 22.93\% | 66.66\% |
| 44 | 67.36\% | 80.90\% | 59.10\% | 72.95\% | 65.30\% | 160.94\% | 65.73\% | 91.45\% | 44.18\% | 21.09\% | 68.50\% |
| 45 | 75.65\% | 73.03\% | 81.36\% | 73.33\% | 113.45\% | 316.77\% | 86.04\% | 109.17\% | 50.37\% | 26.41\% | 78.36\% |
| 99 | 73.01\% | 64.71\% | 52.83\% | 63.99\% | 25.55\% | 419.52\% | 43.65\% | 60.94\% | 54.37\% | 65.11\% | 62.88\% |
| Total | 59.59\% | 68.78\% | 62.65\% | 59.62\% | 61.10\% | 258.95\% | 61.03\% | 70.17\% | 61.16\% | 31.30\% | 61.80\% |

Notes:
(1) Earned Premium : reflects policies effective April 2012 - March 2015 valued at March, 2015
(2) Reported Incurred Losses: reflects policies effective April 2012 - March 2015 valued at March, 2015

|  | April - May, 2014 |  |  |  |  | April - May, 2015 |  |  |  |  | \% ${ }^{\text {S }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/NonCredit Ratio | Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/NonCredit Ratio | Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/NonCredit Ratio |
| 10 | 4.3\% | 1.5\% | 1.8\% | 2.9 | 10 | 3.5\% | 1.2\% | 1.4\% | 3.0 | 10 | -18.6\% | -22.1\% | -22.5\% | 4.5\% |
| 15 | 5.6\% | 0.7\% | 0.7\% | 8.4 | 15 | 4.1\% | 0.5\% | 0.6\% | 7.6 | 15 | -27.0\% | -19.5\% | -20.2\% | -9.3\% |
| 17 | 5.1\% | 2.6\% | 3.7\% | 1.9 | 17 | 4.6\% | 2.2\% | 3.2\% | 2.1 | 17 | -9.6\% | -15.0\% | -12.6\% | 6.7\% |
| 18 | 3.0\% | 1.1\% | 1.2\% | 2.7 | 18 | 2.5\% | 0.9\% | 0.9\% | 2.9 | 18 | -14.5\% | -20.1\% | -25.2\% | 7.0\% |
| 20 | 10.1\% | 4.8\% | 10.1\% | 2.1 | 20 | 10.3\% | 0.0\% | 10.1\% | 0.0 | 20 | 2.1\% | -100.0\% | 0.2\% | -100.0\% |
| 21 | 3.8\% | 2.2\% | 3.2\% | 1.8 | 21 | 3.6\% | 1.7\% | 2.4\% | 2.2 | 21 | -6.5\% | -23.5\% | -25.6\% | 22.2\% |
| 25 | 4.8\% | 1.8\% | 2.0\% | 2.7 | 25 | 3.9\% | 1.7\% | 1.8\% | 2.3 | 25 | -18.0\% | -3.6\% | -7.9\% | -14.6\% |
| 26 | 0.0\% | 0.6\% | 0.6\% | 0.0 | 26 | 0.0\% | 0.5\% | 0.5\% | 0.0 | 26 | 0.0\% | -21.2\% | -21.3\% | 0.0\% |
| 30 | 5.0\% | 0.8\% | 0.9\% | 5.9 | 30 | 0.0\% | 0.8\% | 0.8\% | 0.0 | 30 | -100.0\% | -8.2\% | -14.3\% | -100.0\% |
| M/M | 6.6\% | 2.3\% | 2.8\% | 2.9 | M/M | 5.5\% | 1.9\% | 2.4\% | 2.8 | M/M | -16.3\% | -15.5\% | -15.1\% | -1.0\% |
| Total | 5.0\% | 1.4\% | 1.8\% | 3.5 | Total | 4.4\% | 1.1\% | 1.5\% | 3.9 | Total | -12.8\% | -20.4\% | -19.6\% | 9.6\% |
| ID $9 \operatorname{Exp}$ | 4,419 | 10,056 | 14,475 |  | ID 9 Exp | 3,595 | 8,190 |  |  | ID 9 Exp | -18.6\% |  |  |  |
| Tot Exp | $87,961$ | 706,617 | 794,578 |  | Tot Exp | 82,077 | 723,044 | 805,120 |  | Tot Exp | $-6.7 \%$ | 2.3\% | 1.3\% |  |
|  | 5.0\% | 1.4\% | 1.8\% |  |  | 4.4\% | 1.1\% | 1.5\% |  |  | -12.8\% | -20.4\% | -19.6\% |  |
|  |  |  |  |  | May, 2014 Rolling 12 | May, 2015 Rolling 12 |  |  |  |  | \% ${ }^{\text {a }}$ |  |  |  |
| Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/Non- <br> Credit Ratio | Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/Non- <br> Credit Ratio | Rate Class | Credit Eligible | Non-Credit Eligible | Total | Credit/Non- <br> Credit Ratio |
| 10 | 4.5\% | 1.6\% | 1.9\% | 2.8 | 10 | 3.3\% | 1.2\% | 1.4\% | 2.7 | 10 | -27.1\% | -25.7\% | -26.1\% | -2.2\% |
| 15 | 5.0\% | 0.6\% | 0.7\% | 8.2 | 15 | 4.6\% | 0.5\% | 0.5\% | 9.3 | 15 | -7.3\% | -18.0\% | -17.1\% | 13.0\% |
| 17 | 5.4\% | 2.8\% | 3.9\% | 1.9 | 17 | 4.3\% | 2.2\% | 3.1\% | 2.0 | 17 | -20.9\% | -21.8\% | -21.4\% | 1.6\% |
| 18 | 3.0\% | 1.1\% | 1.3\% | 2.6 | 18 | 2.4\% | 0.9\% | 1.0\% | 2.7 | 18 | -19.7\% | -22.2\% | -26.6\% | 3.1\% |
| 20 | 9.6\% | 4.8\% | 9.6\% | 2.0 | 20 | 8.2\% | 0.9\% | 8.2\% | 9.4 | 20 | -14.2\% | -81.6\% | -14.8\% | 365.8\% |
| 21 | 4.0\% | 2.1\% | 3.3\% | 1.9 | 21 | 3.0\% | 1.5\% | 2.3\% | 2.0 | 21 | -25.4\% | -30.9\% | -29.7\% | 8.0\% |
| 25 | 4.6\% | 1.8\% | 2.1\% | 2.6 | 25 | 4.1\% | 1.5\% | 1.7\% | 2.7 | 25 | -11.0\% | -13.4\% | -18.9\% | 3.1\% |
| 26 | 0.6\% | 0.7\% | 0.7\% | 0.8 | 26 | 1.8\% | 0.6\% | 0.6\% | 3.1 | 26 | 187.7\% | -24.1\% | -23.1\% | 277.1\% |
| 30 | 2.4\% | 1.0\% | 1.0\% | 2.4 | 30 | 2.1\% | 0.9\% | 0.9\% | 2.4 | 30 | -13.9\% | -14.1\% | -15.4\% | 0.0\% |
| M/M | 5.4\% | 1.9\% | 2.3\% | 2.8 | M/M | 3.3\% | 1.5\% | 1.7\% | 2.2 | M/M | -38.2\% | -22.7\% | -26.6\% | -19.9\% |
| Total | 5.0\% | 1.4\% | 1.8\% | 3.5 | Total | 3.8\% | 1.1\% | 1.4\% | 3.5 | Total | -23.9\% | -24.5\% | -24.7\% | 0.9\% |
| ID 9 Exp | 23,566 | 57,175 | 80,741 |  | ID 9 Exp | 17,755 | 43,685 | 61,439 |  | ID 9 Exp | -24.7\% | -23.6\% | -23.9\% |  |
| Tot Exp | 469,659 | 3,956,563 | 4,426,222 |  | Tot Exp | 464,855 | 4,005,166 | 4,470,022 |  | Tot Exp | -1.0\% | 1.2\% | 1.0\% |  |
|  | 5.0\% | 1.4\% | 1.8\% |  |  | 3.8\% | 1.1\% | 1.4\% |  |  | -23.9\% | -24.5\% | -24.7\% |  |


|  | April - May, 2014 |  |  |  |  | April - May, 2015 |  |  |  |  | \% $\triangle$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Credit Eligible | Non-Credit Eligible | Total | Credit/NonCredit Ratio | Terr | Credit Eligible | Non-Credit Eligible | Total | Credit/Non- <br> Credit Ratio | Terr | Credit Eligible | Non-Credit Eligible | Total | Credit/NonCredit Ratio |
| 1 | 3.5\% | 0.9\% | 0.9\% | 4.0 | 1 |  | 0.7\% | 0.7\% |  | 1 |  | -17.9\% | -19.0\% |  |
| 2 | 4.8\% | 0.9\% | 0.9\% | 5.5 | 2 | 4.3\% | 0.7\% | 0.8\% | 5.8 | 2 | -9.1\% | -14.2\% | -14.0\% | 5.9\% |
| 3 | 4.1\% | 1.1\% | 1.1\% | 3.8 | 3 | 7.0\% | 0.8\% | 0.8\% | 9.0 | 3 | 72.6\% | -27.9\% | -26.2\% | 139.7\% |
| 4 | 6.2\% | 0.9\% | 1.0\% | 6.7 | 4 | 2.8\% | 0.8\% | 0.8\% | 3.6 | 4 | -54.6\% | -15.7\% | -17.0\% | -46.2\% |
| 5 | 5.2\% | 1.4\% | 1.4\% | 3.8 | 5 | 6.6\% | 1.1\% | 1.1\% | 6.2 | 5 | 28.6\% | -21.9\% | -21.3\% | 64.7\% |
| 6 | 6.7\% | 1.5\% | 1.5\% | 4.4 | 6 | 6.9\% | 1.3\% | 1.3\% | 5.5 | 6 | 2.9\% | -17.7\% | -17.1\% | 25.0\% |
| 7 | 4.2\% | 1.7\% | 1.8\% | 2.5 | 7 | 3.8\% | 1.3\% | 1.4\% | 3.0 | 7 | -8.9\% | -25.0\% | -23.7\% | 21.4\% |
| 8 | 5.0\% | 1.5\% | 1.7\% | 3.3 | 8 | 5.0\% | 1.2\% | 1.4\% | 4.0 | 8 | -0.5\% | -19.1\% | -16.7\% | 23.2\% |
| 9 | 3.4\% | 2.0\% | 2.1\% | 1.7 | 9 | 3.6\% | 1.5\% | 1.6\% | 2.5 | 9 | 4.5\% | -27.9\% | -25.4\% | 45.0\% |
| 10 | 5.2\% | 2.1\% | 2.2\% | 2.5 | 10 | 4.4\% | 1.7\% | 1.9\% | 2.5 | 10 | -14.5\% | -15.5\% | -14.9\% | 1.2\% |
| 11 | 4.6\% | 1.4\% | 1.6\% | 3.2 | 11 | 11.1\% | 1.3\% | 1.4\% | 8.5 | 11 | 143.3\% | -9.6\% | -11.9\% | 168.8\% |
| 12 | 5.4\% | 1.9\% | 2.1\% | 2.8 | 12 | 5.5\% | 1.5\% | 1.7\% | 3.6 | 12 | 1.0\% | -22.0\% | -20.0\% | 29.9\% |
| 13 | 5.4\% | 2.7\% | 3.0\% | 2.0 | 13 | 5.1\% | 2.2\% | 2.5\% | 2.3 | 13 | -5.8\% | -17.6\% | -14.6\% | 13.9\% |
| 14 | 6.4\% | 2.8\% | 3.2\% | 2.3 | 14 | 5.3\% | 2.0\% | 2.4\% | 2.6 | 14 | -17.1\% | -26.6\% | -23.9\% | 12.9\% |
| 15 | 4.3\% | 1.6\% | 3.8\% | 2.8 | 15 | 5.7\% | 2.5\% | 2.9\% | 2.3 | 15 | 32.7\% | 61.8\% | -23.8\% | -18.1\% |
| 16 | 7.4\% | 4.2\% | 7.1\% | 1.8 | 16 | 5.1\% | 3.4\% | 4.9\% | 1.5 | 16 | -31.3\% | -17.4\% | -31.0\% | -16.9\% |
| 17 | 9.0\% | 1.7\% | 1.9\% | 5.4 | 17 | 4.7\% | 1.7\% | 1.8\% | 2.8 | 17 | -47.9\% | 0.7\% | -6.8\% | -48.2\% |
| 18 | 4.8\% | 4.0\% | 4.7\% | 1.2 | 18 | 4.5\% | 1.7\% | 4.2\% | 2.6 | 18 | -6.1\% | -57.0\% | -11.1\% | 118.3\% |
| 19 | 8.1\% | 2.6\% | 2.9\% | 3.1 | 19 | 13.3\% | 2.1\% | 2.5\% | 6.2 | 19 | 64.6\% | -17.4\% | -11.5\% | 99.4\% |
| 20 | 5.3\% | 3.4\% | 5.0\% | 1.5 | 20 | 5.6\% | 2.7\% | 5.1\% | 2.1 | 20 | 6.7\% | -22.7\% | 2.2\% | 38.6\% |
| 21 | 6.5\% | 2.4\% | 6.5\% | 2.7 | 21 | 6.2\% | 1.5\% | 6.1\% | 4.1 | 21 | -5.1\% | -37.3\% | -5.9\% | 51.3\% |
| 22 | 7.6\% |  | 7.6\% | 0.0 | 22 | 6.3\% |  | 6.3\% | 0.0 | 22 | -17.4\% |  | -17.4\% | 0.0\% |
| 23 | 6.1\% | 2.7\% | 2.9\% | 2.3 | 23 | 6.8\% | 1.7\% | 2.1\% | 4.0 | 23 | 11.3\% | -35.5\% | -28.6\% | 72.9\% |
| 24 | 4.2\% | 1.8\% | 2.0\% | 2.4 | 24 | 3.1\% | 1.5\% | 1.7\% | 2.0 | 24 | -25.6\% | -13.5\% | -18.6\% | -14.0\% |
| 25 | 2.6\% | 1.5\% | 1.5\% | 1.8 | 25 | 5.9\% | 1.0\% | 1.1\% | 6.2 | 25 | 130.1\% | -34.3\% | -25.6\% | 250.0\% |
| 26 | 3.5\% | 2.3\% | 3.3\% | 1.5 | 26 | 7.1\% | 2.5\% | 2.9\% | 2.9 | 26 | 104.7\% | 8.7\% | -12.6\% | 87.6\% |
| 27 | 4.7\% | 0.8\% | 0.8\% | 6.0 | 27 | 2.1\% | 0.6\% | 0.6\% | 3.5 | 27 | -56.2\% | -23.7\% | -24.5\% | -42.8\% |
| 40 | 5.1\% | 2.0\% | 4.7\% | 2.5 | 40 | 3.0\% | 1.2\% | 2.7\% | 2.5 | 40 | -41.7\% | -40.6\% | -42.2\% | -2.0\% |
| 41 | 4.2\% | 1.0\% | 3.8\% | 4.2 | 41 | 3.0\% | 1.4\% | 2.8\% | 2.2 | 41 | -28.6\% | 36.4\% | -27.7\% | -47.6\% |
| 42 | 5.1\% | 3.0\% | 4.8\% | 1.7 | 42 | 3.2\% | 1.9\% | 3.0\% | 1.7 | 42 | -36.6\% | -35.2\% | -37.2\% | -1.8\% |
| 43 | 3.2\% | 1.4\% | 3.0\% | 2.3 | 43 | 3.4\% | 1.4\% | 3.1\% | 2.5 | 43 | 4.7\% | -2.7\% | 4.2\% | 7.9\% |
| 44 | 6.3\% | 2.5\% | 5.9\% | 2.5 | 44 | 5.2\% | 2.2\% | 4.9\% | 2.4 | 44 | -17.6\% | -14.7\% | -17.5\% | -3.6\% |
| 45 | 4.4\% | 2.8\% | 4.2\% | 1.6 | 45 | 3.8\% | 2.2\% | 3.6\% | 1.7 | 45 | -14.2\% | -23.1\% | -15.4\% | 11.5\% |
| 99 |  | 0.5\% | 0.5\% |  | 99 |  | 0.4\% | 0.4\% |  | 99 | 0 | -18.9\% | -18.9\% |  |
| Total | 5.0\% | 1.4\% | 1.8\% | 3.5 | Total | 4.4\% | 1.1\% | 1.5\% | 3.9 | Total | -12.8\% | -20.4\% | -19.6\% | 9.6\% |


|  | May, 2014 Rolling 12 |  |  |  |  | May, 2015 Rolling 12 |  |  |  | Terr | \% ${ }^{\text {a }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Credit Eligible | Non-Credit Eligible | Total | Credit/Non- <br> Credit Ratio | Terr | Credit Eligible | Non-Credit Eligible | Total | $\frac{\text { Credit/No }}{\text { n-Credit }}$ |  | Credit Eligible | Non-Credit Eligible | Total | $\frac{\text { Credit/No }}{\text { n-Credit }}$ |
| 1 | 3.9\% | 0.9\% | 0.9\% | 4.4 | 1 | 6.3\% | 0.7\% | 0.7\% | 9.0 | 1 | 60.4\% | -22.5\% | -21.5\% | 106.9\% |
| 2 | 4.0\% | 0.9\% | 0.9\% | 4.5 | 2 | 4.0\% | 0.7\% | 0.8\% | 5.5 | 2 | 0.9\% | -17.2\% | -16.8\% | 21.9\% |
| 3 | 4.3\% | 1.1\% | 1.1\% | 4.1 | 3 | 4.5\% | 0.8\% | 0.8\% | 5.7 | 3 | 2.7\% | -27.1\% | -26.6\% | 40.9\% |
| 4 | 3.9\% | 1.0\% | 1.0\% | 4.1 | 4 | 2.7\% | 0.8\% | 0.8\% | 3.6 | 4 | -30.2\% | -20.3\% | -20.4\% | -12.4\% |
| 5 | 5.4\% | 1.4\% | 1.5\% | 3.8 | 5 | 4.3\% | 1.0\% | 1.1\% | 4.2 | 5 | -20.2\% | -26.9\% | -26.8\% | 9.2\% |
| 6 | 6.6\% | 1.5\% | 1.5\% | 4.5 | 6 | 5.8\% | 1.1\% | 1.2\% | 5.1 | 6 | -12.3\% | -22.7\% | -22.4\% | 13.3\% |
| 7 | 4.2\% | 1.7\% | 1.8\% | 2.5 | 7 | 3.2\% | 1.2\% | 1.3\% | 2.6 | 7 | -23.6\% | -27.5\% | -27.1\% | 5.7\% |
| 8 | 4.6\% | 1.6\% | 1.7\% | 2.9 | 8 | 4.0\% | 1.2\% | 1.3\% | 3.2 | 8 | -14.5\% | -22.9\% | -22.3\% | 10.7\% |
| 9 | 4.3\% | 1.9\% | 2.1\% | 2.2 | 9 | 3.3\% | 1.3\% | 1.4\% | 2.5 | 9 | -22.4\% | -30.8\% | -29.9\% | 11.7\% |
| 10 | 4.7\% | 2.1\% | 2.2\% | 2.2 | 10 | 3.9\% | 1.6\% | 1.7\% | 2.5 | 10 | -17.8\% | -25.5\% | -24.6\% | 10.3\% |
| 11 | 4.3\% | 1.5\% | 1.6\% | 2.8 | 11 | 3.2\% | 1.2\% | 1.3\% | 2.6 | 11 | -25.7\% | -18.5\% | -19.8\% | -8.9\% |
| 12 | 5.1\% | 1.9\% | 2.1\% | 2.6 | 12 | 4.3\% | 1.5\% | 1.6\% | 2.8 | 12 | -14.7\% | -20.9\% | -21.2\% | 8.0\% |
| 13 | 5.1\% | 3.0\% | 3.2\% | 1.7 | 13 | 4.8\% | 2.2\% | 2.5\% | 2.2 | 13 | -4.4\% | -25.6\% | -23.4\% | 27.8\% |
| 14 | 7.0\% | 2.8\% | 3.2\% | 2.5 | 14 | 5.4\% | 2.1\% | 2.4\% | 2.6 | 14 | -22.4\% | -25.3\% | -24.7\% | 4.0\% |
| 15 | 3.6\% | 2.0\% | 3.3\% | 1.8 | 15 | 2.6\% | 1.9\% | 2.4\% | 1.3 | 15 | -28.1\% | -2.8\% | -27.9\% | -26.0\% |
| 16 | 6.2\% | 2.2\% | 5.8\% | 2.8 | 16 | 4.2\% | 2.1\% | 4.0\% | 2.0 | 16 | -32.1\% | -5.5\% | -31.2\% | -28.3\% |
| 17 | 5.7\% | 1.6\% | 1.8\% | 3.5 | 17 | 4.6\% | 1.5\% | 1.6\% | 3.1 | 17 | -19.4\% | -8.5\% | -9.9\% | -12.1\% |
| 18 | 4.6\% | 2.5\% | 4.3\% | 1.8 | 18 | 4.0\% | 2.2\% | 3.8\% | 1.9 | 18 | -12.7\% | -13.8\% | -12.9\% | 1.1\% |
| 19 | 8.0\% | 3.2\% | 3.4\% | 2.5 | 19 | 7.2\% | 2.6\% | 2.8\% | 2.8 | 19 | -9.9\% | -19.4\% | -19.2\% | 11.6\% |
| 20 | 5.6\% | 2.5\% | 5.2\% | 2.3 | 20 | 5.1\% | 2.3\% | 4.6\% | 2.2 | 20 | -9.9\% | -7.2\% | -11.1\% | -3.1\% |
| 21 | 6.7\% | 1.6\% | 6.6\% | 4.2 | 21 | 5.6\% | 2.1\% | 5.5\% | 2.6 | 21 | -16.4\% | 35.8\% | -16.8\% | -38.5\% |
| 22 | 7.9\% |  | 7.9\% | 0.0 | 22 | 6.3\% |  | 6.3\% | 0.0 | 22 | -20.5\% |  | -20.5\% | 0.0\% |
| 23 | 7.3\% | 2.6\% | 2.9\% | 2.8 | 23 | 5.0\% | 1.8\% | 2.0\% | 2.8 | 23 | -31.2\% | -31.8\% | -31.7\% | 1.1\% |
| 24 | 4.2\% | 2.1\% | 2.2\% | 2.1 | 24 | 2.9\% | 1.5\% | 1.6\% | 1.9 | 24 | -31.2\% | -25.9\% | -26.1\% | -7.3\% |
| 25 | 5.6\% | 1.6\% | 1.7\% | 3.6 | 25 | 6.5\% | 1.2\% | 1.4\% | 5.3 | 25 | 14.7\% | -23.3\% | -20.7\% | 49.4\% |
| 26 | 3.2\% | 1.8\% | 3.0\% | 1.7 | 26 | 2.4\% | 2.2\% | 2.3\% | 1.1 | 26 | -25.3\% | 16.9\% | -23.1\% | -36.3\% |
| 27 | 3.9\% | 0.8\% | 0.8\% | 5.1 | 27 | 2.3\% | 0.6\% | 0.6\% | 4.1 | 27 | -41.9\% | -26.6\% | -26.9\% | -20.7\% |
| 40 | 5.2\% | 1.9\% | 4.6\% | 2.8 | 40 | 3.2\% | 1.2\% | 2.8\% | 2.8 | 40 | -38.7\% | -38.1\% | -38.8\% | -1.1\% |
| 41 | 3.9\% | 1.4\% | 3.6\% | 2.7 | 41 | 2.8\% | 1.2\% | 2.6\% | 2.4 | 41 | -27.3\% | -17.6\% | -27.0\% | -11.8\% |
| 42 | 5.3\% | 3.2\% | 4.9\% | 1.7 | 42 | 3.0\% | 2.3\% | 2.9\% | 1.3 | 42 | -42.4\% | -27.4\% | -40.9\% | -20.4\% |
| 43 | 4.1\% | 1.2\% | 3.6\% | 3.4 | 43 | 2.9\% | 1.1\% | 2.6\% | 2.8 | 43 | -28.0\% | -12.1\% | -27.2\% | -17.9\% |
| 44 | 6.0\% | 2.5\% | 5.6\% | 2.4 | 44 | 4.8\% | 2.0\% | 4.5\% | 2.5 | 44 | -19.0\% | -21.9\% | -20.0\% | 3.8\% |
| 45 | 4.5\% | 2.0\% | 4.1\% | 2.2 | 45 | 3.4\% | 1.5\% | 3.1\% | 2.3 | 45 | -24.0\% | -27.5\% | -24.5\% | 4.9\% |
| 99 | 1.8\% | 0.5\% | 0.5\% | 3.4 | 99 |  | 0.5\% | 0.5\% |  | 99 |  | -12.1\% | -13.9\% |  |
| Total | 5.0\% | 1.4\% | 1.8\% | 3.5 | Total | 3.8\% | 1.1\% | 1.4\% | 3.5 | Total | -23.9\% | -24.5\% | -24.7\% | 0.9\% |

Rolling 12 Month Data Through March, 2015

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 106,935 | 4,239 | 10,346 | 1,730 | 10,973 | 4,720 | 8,207 | 6,343 | 707 | 726 | 154,925 |
| 2 | 147,670 | 6,401 | 23,012 | 5,041 | 8,933 | 4,156 |  | 5,333 | 3,185 | 852 | 204,582 |
| 3 | 492,530 | 24,161 | 58,387 | 7,354 | 20,249 | 706 | 12,759 | 6,456 | 4,415 | 2,276 | 629,293 |
| 4 | 268,034 | 17,242 | 21,841 | 2,178 | 12,063 | 1,427 | 11,065 | 964 | 6,506 | 1,232 | 342,550 |
| 5 | 652,353 | 26,590 | 99,097 | 10,754 | 31,935 | 10,332 | 20,956 | 6,238 | 7,398 | 4,567 | 870,221 |
| 6 | 425,823 | 19,470 | 45,336 | 8,006 | 33,722 | 6,473 | 20,433 | 7,877 | 7,120 | 1,914 | 576,174 |
| 7 | 560,753 | 33,258 | 74,886 | 6,323 | 29,726 | 8,724 | 26,425 | 4,383 | 10,999 | 4,328 | 759,805 |
| 8 | 321,191 | 24,828 | 49,576 | 1,060 | 16,529 | (557) | 17,444 | 1,503 | 4,290 | 1,922 | 437,786 |
| 9 | 415,224 | 15,720 | 62,095 | 4,567 | 28,716 | 7,550 | 22,382 | 2,176 | 13,682 | 3,763 | 575,873 |
| 10 | 197,136 | 8,546 | 26,177 | 1,864 | 10,549 | 2,723 | 5,132 |  | 2,520 | 1,373 | 256,019 |
| 11 | 116,848 | 20,520 | 12,854 | 1,828 | 9,077 | 4,645 | 8,595 | 1,931 | 2,601 | 652 | 179,551 |
| 12 | 400,834 | 22,335 | 39,834 | 12,494 | 38,131 | 6,495 | 15,103 | 2,000 | 10,314 | 1,966 | 549,507 |
| 13 | 678,972 | 35,493 | 66,988 | 6,936 | 86,405 | 12,180 | 51,342 | 2,756 | 7,393 | 2,195 | 950,661 |
| 14 | 257,870 | 18,513 | 30,969 | 3,653 | 78,901 | 3,299 | 21,461 | 1,484 | 4,215 | 864 | 421,230 |
| 15 | 156,715 | 8,344 | 18,692 | 4,404 | 21,154 |  |  | 2,240 | 2,199 | 2,069 | 215,818 |
| 16 | 127,458 | 6,026 | 10,765 | 2,241 | 51,338 | 1,622 | 779 |  |  | 1,223 | 201,452 |
| 17 | 30,417 |  | 1,684 |  | 3,151 |  |  |  | 4,359 | 297 | 39,908 |
| 18 | 81,588 | 4,217 | 8,927 | 1,773 | 25,013 |  |  | 2,237 |  | - | 123,756 |
| 19 | 54,957 | 779 | 13,307 |  | 4,401 | 911 | 3,171 |  | 1,079 | - | 78,606 |
| 20 | 131,881 | 7,156 | 8,298 |  | 32,599 | 1,035 |  |  | 1,023 | 73 | 182,065 |
| 21 | 612,423 | 42,893 | 73,060 | 14,272 | 118,228 | 4,453 | 19,475 | 454 | 1,486 | 292 | 887,035 |
| 22 | 181,667 | 14,313 | 49,970 |  | 35,466 | 3,205 | 4,623 |  |  | 316 | 289,559 |
| 23 | 110,536 | 5,073 | 12,869 | 3,267 | 13,147 | 2,413 | 1,732 |  |  | 396 | 149,432 |
| 24 | 59,859 | 7,465 | 7,311 |  | 10,946 | 4,696 | 398 |  |  | 812 | 91,487 |
| 25 | 20,806 | 3,504 | 2,548 | 1,980 | 10,570 | 2,149 | 3,076 |  |  | - | 44,633 |
| 26 | 143,145 | 1,832 | 11,438 |  | 30,398 | 2,447 | 798 |  | 7,060 | 71 | 197,189 |
| 27 | 207,651 | 12,165 | 13,587 | 3,161 | 13,416 | 1,119 | 5,562 | 3,214 | 4,255 | 1,418 | 265,549 |
| 40 | 168,007 | 7,745 | 2,002 |  | 16,741 | 5,885 |  |  |  | 32 | 200,412 |
| 41 | 509,771 | 10,252 | 56,559 | 6,159 | 29,085 | 7,405 | 7,040 | 5,373 |  | 1,427 | 633,071 |
| 42 | 634,000 | 32,267 | 37,103 | 4,163 | 37,691 | 3,219 | 4,687 |  |  | 3,657 | 756,788 |
| 43 | 503,983 | 11,193 | 44,746 | 3,170 | 69,184 | 5,804 | 19,340 | 5,976 | 6,129 | 420 | 669,945 |
| 44 | 170,873 | 9,439 | 20,126 | 1,499 | 24,858 | 9,863 | 8,483 | 1,777 |  | 810 | 247,726 |
| 45 | 564,107 | 24,416 | 62,606 | 10,047 | 111,553 | 7,110 | 19,173 |  | 2,512 | 1,249 | 802,773 |
| 99 | 7,672 | 633 | 3,865 |  | 478 |  | 3,015 |  |  | - | 15,663 |
| Total | 9,519,691 | 487,028 | 1,080,859 | 129,924 | 1,075,329 | 136,207 | 342,655 | 70,713 | 115,446 | 43,192 | 13,001,044 |

Notes: $\square$ 2014 Credit Eligible

# Commonwealth Automobile Reinsurers <br> Take Out Credit Premium - Market Share (\% of Total) <br> Rolling 12 Month Data Through March, 2015 

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 0.82\% | 0.03\% | 0.08\% | 0.01\% | 0.08\% | 0.04\% | 0.06\% | 0.05\% | 0.01\% | 0.01\% | 1.19\% |
| 2 | 1.14\% | 0.05\% | 0.18\% | 0.04\% | 0.07\% | 0.03\% | 0.00\% | 0.04\% | 0.02\% | 0.01\% | 1.57\% |
| 3 | 3.79\% | 0.19\% | 0.45\% | 0.06\% | 0.16\% | 0.01\% | 0.10\% | 0.05\% | 0.03\% | 0.02\% | 4.84\% |
| 4 | 2.06\% | 0.13\% | 0.17\% | 0.02\% | 0.09\% | 0.01\% | 0.09\% | 0.01\% | 0.05\% | 0.01\% | 2.63\% |
| 5 | 5.02\% | 0.20\% | 0.76\% | 0.08\% | 0.25\% | 0.08\% | 0.16\% | 0.05\% | 0.06\% | 0.04\% | 6.69\% |
| 6 | 3.28\% | 0.15\% | 0.35\% | 0.06\% | 0.26\% | 0.05\% | 0.16\% | 0.06\% | 0.05\% | 0.01\% | 4.43\% |
| 7 | 4.31\% | 0.26\% | 0.58\% | 0.05\% | 0.23\% | 0.07\% | 0.20\% | 0.03\% | 0.08\% | 0.03\% | 5.84\% |
| 8 | 2.47\% | 0.19\% | 0.38\% | 0.01\% | 0.13\% | 0.00\% | 0.13\% | 0.01\% | 0.03\% | 0.01\% | 3.37\% |
| 9 | 3.19\% | 0.12\% | 0.48\% | 0.04\% | 0.22\% | 0.06\% | 0.17\% | 0.02\% | 0.11\% | 0.03\% | 4.43\% |
| 10 | 1.52\% | 0.07\% | 0.20\% | 0.01\% | 0.08\% | 0.02\% | 0.04\% | 0.00\% | 0.02\% | 0.01\% | 1.97\% |
| 11 | 0.90\% | 0.16\% | 0.10\% | 0.01\% | 0.07\% | 0.04\% | 0.07\% | 0.01\% | 0.02\% | 0.01\% | 1.38\% |
| 12 | 3.08\% | 0.17\% | 0.31\% | 0.10\% | 0.29\% | 0.05\% | 0.12\% | 0.02\% | 0.08\% | 0.02\% | 4.23\% |
| 13 | 5.22\% | 0.27\% | 0.52\% | 0.05\% | 0.66\% | 0.09\% | 0.39\% | 0.02\% | 0.06\% | 0.02\% | 7.31\% |
| 14 | 1.98\% | 0.14\% | 0.24\% | 0.03\% | 0.61\% | 0.03\% | 0.17\% | 0.01\% | 0.03\% | 0.01\% | 3.24\% |
| 15 | 1.21\% | 0.06\% | 0.14\% | 0.03\% | 0.16\% | 0.00\% | 0.00\% | 0.02\% | 0.02\% | 0.02\% | 1.66\% |
| 16 | 0.98\% | 0.05\% | 0.08\% | 0.02\% | 0.39\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 1.55\% |
| 17 | 0.23\% | 0.00\% | 0.01\% | 0.00\% | 0.02\% | 0.00\% | 0.00\% | 0.00\% | 0.03\% | 0.00\% | 0.31\% |
| 18 | 0.63\% | 0.03\% | 0.07\% | 0.01\% | 0.19\% | 0.00\% | 0.00\% | 0.02\% | 0.00\% | 0.00\% | 0.95\% |
| 19 | 0.42\% | 0.01\% | 0.10\% | 0.00\% | 0.03\% | 0.01\% | 0.02\% | 0.00\% | 0.01\% | 0.00\% | 0.60\% |
| 20 | 1.01\% | 0.06\% | 0.06\% | 0.00\% | 0.25\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 1.40\% |
| 21 | 4.71\% | 0.33\% | 0.56\% | 0.11\% | 0.91\% | 0.03\% | 0.15\% | 0.00\% | 0.01\% | 0.00\% | 6.82\% |
| 22 | 1.40\% | 0.11\% | 0.38\% | 0.00\% | 0.27\% | 0.02\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 2.23\% |
| 23 | 0.85\% | 0.04\% | 0.10\% | 0.03\% | 0.10\% | 0.02\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 1.15\% |
| 24 | 0.46\% | 0.06\% | 0.06\% | 0.00\% | 0.08\% | 0.04\% | 0.00\% | 0.00\% | 0.00\% | 0.01\% | 0.70\% |
| 25 | 0.16\% | 0.03\% | 0.02\% | 0.02\% | 0.08\% | 0.02\% | 0.02\% | 0.00\% | 0.00\% | 0.00\% | 0.34\% |
| 26 | 1.10\% | 0.01\% | 0.09\% | 0.00\% | 0.23\% | 0.02\% | 0.01\% | 0.00\% | 0.05\% | 0.00\% | 1.52\% |
| 27 | 1.60\% | 0.09\% | 0.10\% | 0.02\% | 0.10\% | 0.01\% | 0.04\% | 0.02\% | 0.03\% | 0.01\% | 2.04\% |
| 40 | 1.29\% | 0.06\% | 0.02\% | 0.00\% | 0.13\% | 0.05\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.54\% |
| 41 | 3.92\% | 0.08\% | 0.44\% | 0.05\% | 0.22\% | 0.06\% | 0.05\% | 0.04\% | 0.00\% | 0.01\% | 4.87\% |
| 42 | 4.88\% | 0.25\% | 0.29\% | 0.03\% | 0.29\% | 0.02\% | 0.04\% | 0.00\% | 0.00\% | 0.03\% | 5.82\% |
| 43 | 3.88\% | 0.09\% | 0.34\% | 0.02\% | 0.53\% | 0.04\% | 0.15\% | 0.05\% | 0.05\% | 0.00\% | 5.15\% |
| 44 | 1.31\% | 0.07\% | 0.15\% | 0.01\% | 0.19\% | 0.08\% | 0.07\% | 0.01\% | 0.00\% | 0.01\% | 1.91\% |
| 45 | 4.34\% | 0.19\% | 0.48\% | 0.08\% | 0.86\% | 0.05\% | 0.15\% | 0.00\% | 0.02\% | 0.01\% | 6.17\% |
| 99 | 0.06\% | 0.00\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.02\% | 0.00\% | 0.00\% | 0.00\% | 0.12\% |
| Total | 73.22\% | 3.75\% | 8.31\% | 1.00\% | 8.27\% | 1.05\% | 2.64\% | 0.54\% | 0.89\% | 0.33\% | 100.00\% |

Notes:
2014 Credit Eligible

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 137 | 7 | 9 | 2 | 5 | 4 | 5 | 6 | 0 | 6 | 180 |
| 2 | 168 | 9 | 18 | 5 | 4 | 3 |  | 5 | 3 | 10 | 226 |
| 3 | 527 | 32 | 41 | 6 | 10 | 1 | 7 | 5 | 4 | 24 | 657 |
| 4 | 247 | 18 | 14 | 2 | 5 | 1 | 5 | 1 | 5 | 7 | 306 |
| 5 | 628 | 32 | 65 | 10 | 14 | 6 | 10 | 5 | 7 | 32 | 810 |
| 6 | 370 | 25 | 28 | 7 | 11 | 4 | 8 | 5 | 5 | 18 | 480 |
| 7 | 523 | 39 | 45 | 4 | 11 | 5 | 12 | 3 | 10 | 30 | 682 |
| 8 | 287 | 30 | 29 | 1 | 6 | (0) | 8 | 1 | 3 | 12 | 377 |
| 9 | 346 | 16 | 34 | 3 | 10 | 4 | 7 | 1 | 9 | 14 | 445 |
| 10 | 172 | 9 | 15 | 1 | 3 | 1 | 2 |  | 1 | 8 | 213 |
| 11 | 83 | 17 | 6 | 1 | 3 | 2 | 3 | 1 | 2 | 4 | 122 |
| 12 | 295 | 20 | 21 | 8 | 12 | 3 | 5 | 1 | 6 | 10 | 381 |
| 13 | 528 | 37 | 34 | 4 | 26 | 5 | 18 | 1 | 6 | 14 | 674 |
| 14 | 156 | 15 | 13 | 2 | 20 | 1 | 6 | 1 | 4 | 4 | 223 |
| 15 | 99 | 7 | 7 | 3 | 6 |  |  | 1 | 1 | 4 | 128 |
| 16 | 87 | 5 | 5 | 1 | 14 | 1 | 0 |  |  | 4 | 116 |
| 17 | 22 |  | 1 |  | 1 |  |  |  | 1 | 1 | 25 |
| 18 | 50 | 4 | 3 | 1 | 6 |  |  | 1 |  | - | 66 |
| 19 | 36 | 1 | 6 |  | 1 | 0 | 1 |  | 1 | - | 46 |
| 20 | 85 | 6 | 3 |  | 7 | 0 |  |  | 1 | 0 | 102 |
| 21 | 282 | 27 | 24 | 5 | 22 | 1 | 4 | 0 | 0 | 1 | 367 |
| 22 | 82 | 9 | 17 |  | 6 | 1 | 1 |  |  | 1 | 117 |
| 23 | 68 | 4 | 5 | 2 | 3 | 1 | 1 |  |  | 1 | 84 |
| 24 | 38 | 8 | 3 |  | 3 | 2 | 0 |  |  | 2 | 56 |
| 25 | 15 | 2 | 1 | 1 | 3 | 1 | 1 |  |  | - | 23 |
| 26 | 84 | 2 | 5 |  | 8 | 1 | 0 |  | 4 | 0 | 104 |
| 27 | 249 | 19 | 12 | 4 | 8 | 1 | 3 | 3 | 6 | 14 | 318 |
| 40 | 126 | 8 | 1 |  | 5 | 3 |  |  |  | 0 | 142 |
| 41 | 391 | 11 | 31 | 4 | 10 | 4 | 3 | 3 |  | 6 | 462 |
| 42 | 402 | 27 | 14 | 2 | 9 | 1 | 1 |  |  | 10 | 468 |
| 43 | 277 | 9 | 18 | 2 | 17 | 2 | 5 | 2 | 3 | 2 | 336 |
| 44 | 133 | 8 | 10 | 1 | 9 | 5 | 2 | 1 |  | 3 | 173 |
| 45 | 282 | 16 | 22 | 5 | 21 | 2 | 4 |  | 1 | 4 | 357 |
| 99 | 5 | 1 | 2 |  | 0 |  | 1 |  |  | - | 10 |
| Total | 7,281 | 479 | 563 | 88 | 301 | 67 | 124 | 46 | 84 | 247 | 9,279 |

Notes:
2014 Credit Eligible

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 1.47\% | 0.07\% | 0.10\% | 0.03\% | 0.06\% | 0.04\% | 0.05\% | 0.06\% | 0.00\% | 0.06\% | 1.95\% |
| 2 | 1.81\% | 0.10\% | 0.19\% | 0.06\% | 0.05\% | 0.03\% | 0.00\% | 0.05\% | 0.03\% | 0.11\% | 2.44\% |
| 3 | 5.68\% | 0.35\% | 0.44\% | 0.07\% | 0.11\% | 0.01\% | 0.07\% | 0.05\% | 0.04\% | 0.26\% | 7.08\% |
| 4 | 2.67\% | 0.20\% | 0.16\% | 0.02\% | 0.05\% | 0.01\% | 0.06\% | 0.01\% | 0.05\% | 0.07\% | 3.29\% |
| 5 | 6.77\% | 0.34\% | 0.71\% | 0.10\% | 0.15\% | 0.07\% | 0.11\% | 0.05\% | 0.08\% | 0.35\% | 8.73\% |
| 6 | 3.99\% | 0.27\% | 0.30\% | 0.07\% | 0.12\% | 0.04\% | 0.08\% | 0.06\% | 0.05\% | 0.19\% | 5.17\% |
| 7 | 5.64\% | 0.42\% | 0.49\% | 0.05\% | 0.12\% | 0.05\% | 0.12\% | 0.03\% | 0.11\% | 0.32\% | 7.35\% |
| 8 | 3.09\% | 0.32\% | 0.31\% | 0.01\% | 0.07\% | 0.00\% | 0.08\% | 0.01\% | 0.03\% | 0.13\% | 4.06\% |
| 9 | 3.72\% | 0.18\% | 0.37\% | 0.04\% | 0.11\% | 0.04\% | 0.08\% | 0.01\% | 0.10\% | 0.15\% | 4.80\% |
| 10 | 1.85\% | 0.10\% | 0.16\% | 0.02\% | 0.04\% | 0.01\% | 0.02\% | 0.00\% | 0.01\% | 0.09\% | 2.30\% |
| 11 | 0.89\% | 0.18\% | 0.06\% | 0.01\% | 0.03\% | 0.02\% | 0.03\% | 0.01\% | 0.02\% | 0.04\% | 1.31\% |
| 12 | 3.18\% | 0.21\% | 0.23\% | 0.08\% | 0.13\% | 0.03\% | 0.06\% | 0.01\% | 0.07\% | 0.11\% | 4.11\% |
| 13 | 5.70\% | 0.40\% | 0.37\% | 0.04\% | 0.28\% | 0.06\% | 0.19\% | 0.01\% | 0.06\% | 0.16\% | 7.26\% |
| 14 | 1.68\% | 0.16\% | 0.14\% | 0.02\% | 0.22\% | 0.01\% | 0.07\% | 0.01\% | 0.04\% | 0.05\% | 2.40\% |
| 15 | 1.07\% | 0.07\% | 0.08\% | 0.03\% | 0.06\% | 0.00\% | 0.00\% | 0.01\% | 0.02\% | 0.04\% | 1.38\% |
| 16 | 0.93\% | 0.05\% | 0.05\% | 0.01\% | 0.15\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.04\% | 1.25\% |
| 17 | 0.24\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.01\% | 0.01\% | 0.27\% |
| 18 | 0.54\% | 0.04\% | 0.04\% | 0.01\% | 0.07\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.00\% | 0.71\% |
| 19 | 0.39\% | 0.01\% | 0.06\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% | 0.00\% | 0.50\% |
| 20 | 0.91\% | 0.06\% | 0.03\% | 0.00\% | 0.08\% | 0.00\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 1.10\% |
| 21 | 3.04\% | 0.29\% | 0.26\% | 0.06\% | 0.24\% | 0.01\% | 0.04\% | 0.00\% | 0.00\% | 0.01\% | 3.96\% |
| 22 | 0.89\% | 0.10\% | 0.18\% | 0.00\% | 0.06\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 1.26\% |
| 23 | 0.73\% | 0.04\% | 0.05\% | 0.02\% | 0.04\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.91\% |
| 24 | 0.41\% | 0.09\% | 0.03\% | 0.00\% | 0.03\% | 0.02\% | 0.00\% | 0.00\% | 0.00\% | 0.02\% | 0.61\% |
| 25 | 0.16\% | 0.02\% | 0.01\% | 0.01\% | 0.03\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.25\% |
| 26 | 0.90\% | 0.02\% | 0.05\% | 0.00\% | 0.09\% | 0.01\% | 0.00\% | 0.00\% | 0.04\% | 0.00\% | 1.12\% |
| 27 | 2.68\% | 0.20\% | 0.13\% | 0.04\% | 0.09\% | 0.01\% | 0.03\% | 0.03\% | 0.06\% | 0.15\% | 3.43\% |
| 40 | 1.35\% | 0.09\% | 0.01\% | 0.00\% | 0.05\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 1.53\% |
| 41 | 4.21\% | 0.12\% | 0.33\% | 0.04\% | 0.11\% | 0.04\% | 0.03\% | 0.03\% | 0.00\% | 0.06\% | 4.98\% |
| 42 | 4.34\% | 0.30\% | 0.15\% | 0.02\% | 0.10\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.11\% | 5.04\% |
| 43 | 2.99\% | 0.09\% | 0.19\% | 0.02\% | 0.18\% | 0.02\% | 0.06\% | 0.02\% | 0.03\% | 0.02\% | 3.62\% |
| 44 | 1.44\% | 0.09\% | 0.11\% | 0.01\% | 0.09\% | 0.05\% | 0.03\% | 0.01\% | 0.00\% | 0.04\% | 1.87\% |
| 45 | 3.04\% | 0.18\% | 0.23\% | 0.05\% | 0.23\% | 0.02\% | 0.04\% | 0.00\% | 0.01\% | 0.04\% | 3.84\% |
| 99 | 0.06\% | 0.01\% | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.11\% |
| Total | 78.47\% | 5.16\% | 6.06\% | 0.95\% | 3.24\% | 0.72\% | 1.33\% | 0.50\% | 0.91\% | 2.67\% | 100.00\% |

Notes:
2014 Credit Eligible

## Commonwealth Automobile Reinsurers

Actuarial Committee
Summary of Credit Indications for April 1, 2016

April 1, 2016 Credit Offer

|  | Res Mkt |
| :---: | :---: |
| PY | Share |
| 8/13 | 2.29\% |
| 8/14 | 1.68\% |
| 5/15 | 1.38\% |
|  | Expos |
| ID 9 | 61,816 |
| Tot Mkt | 4,470,398 |
| Potential Cred |  |
| Eligible Exp | 112,815 |
| \% Total | 2.5\% |
| Potential Prem | 258.4 M |
| Indicated $\Delta$ : |  |
| $\Delta$ Exposures | -73.6\% |
| $\triangle$ Premium | -64.0\% |
| \# Cells With Credit | 73 |

"Freeze" 2015 Factors

|  | Res Mkt |
| :---: | :---: |
| PY | Share |
| 8/13 | 2.29\% |
| 8/14 | 1.68\% |
| 5/15 | 1.38\% |
|  | Expos |
| ID 9 | 61,816 |
| Tot Mkt | 4,470,398 |
| Potential Cred |  |
| Eligible Exp | 426,727 |
| \% Total | 9.5\% |
| Potential Prem | 717.5 |
| Indicated $\Delta$ : |  |
| $\Delta$ Exposures | 0.0\% |
| $\Delta$ Premium | 0.0\% |
| \# Cells With Credit | 127 |

Avg 2016 and 2015


Relative Ranges Target

|  | Res Mkt |
| ---: | ---: |
| $\frac{\text { PY }}{}$ | $\frac{\text { Share }}{2.29 \%}$ |
| $8 / 13$ | $1.68 \%$ |
| $5 / 15$ | $1.38 \%$ |
|  |  |
| ID 9 | $\frac{\text { Expos }}{61,816}$ |
| Tot Mkt | $4,470,398$ |
| Potential Cred |  |
| Eligible Exp | 329,286 |
| \% Total | $7.4 \%$ |
| Potential Prem | 562.1 M |
|  |  |
| $\frac{\text { Indicated } \Delta:}{\Delta \text { Exposures }}$ | $\mathbf{- 2 2 . 8 \%}$ |
| $\Delta$ Premium | $\mathbf{- 2 1 . 7 \%}$ |
|  |  |
| \# Cells With Credit | 124 |


| Factor | Lower |  | Upper |
| ---: | :---: | :---: | :---: |
| 0 | 0 |  | Group |
| 1 | 0.035 | 0.035 | 0 |
| 1 | 0.065 | 0.095 | 1 |
| 1 | 0.095 | 0.155 | 2 |
| 1.25 | 0.155 | 0.215 | 3 |
| 1.5 | 0.215 | 0.275 | 5 |
| 1.75 | 0.275 | 0.335 | 6 |
| 2 | 0.335 | 0.395 | 7 |
| 2.25 | 0.395 | 0.455 | 8 |
| 2.5 | 0.455 | 1 | 9 |

## Commonwealth Automobile Reinsurers

 Actuarial Committee Summary of Prior Rule 29 Credit Decisions (Proposed vs. Approved)|  |  | Residual Market Share Group Methodology |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | April 2010* | April 2011 | April 2012** | April 2013 | April 2014 | April 2015 |
| Residual Market Share \% |  |  |  |  |  |  |  |
| Rolling 12 Poli | ective Month as of: | 2.6\% | 2.7\% | 2.8\% | 2.5\% | 1.9\% | 1.4\% |
| Proposed: | Exposures | -26.4\% | -5.5\% | -0.6\% | -3.9\% | -1.8\% | -9.9\% |
|  | Premiums | -43.3\% | -3.4\% | -6.6\% | -5.0\% | -3.5\% | -10.7\% |
| Approved: | Exposures | -11.0\% | -5.5\% | 4.1\% | -3.9\% | -1.8\% | -9.9\% |
|  | Premiums | -4.6\% | -3.4\% | 37.2\% | -5.0\% | -3.5\% | -10.7\% |

* Proposed credit factors were disapproved and remanded back to CAR for consideration of specific constraints. Refer to Bulletin No. 918.
** Proposed credit factors were disapproved and Residual Market Share Group Methodology was implemented. Refer to Bulletin No. 953.

Commonwealth Automobile Reinsurers
Actuarial Committee
Historical Summary of Credit Offers 2012-2015


April 1, 2013 Credit Offer

|  | Res Mkt |
| :---: | :---: |
| PY | Share |
| 8/10 | 2.60\% |
| 8/11 | 2.73\% |
| 8/12 | 2.71\% |
|  | Expos |
| ID 9 | 117,579 |
| Tot Mkt | 4,344,170 |
| Potential Cred |  |
| Eligible Exp | 453,846 |
| \% Total | 10.4\% |
| Potential Prem | 794.5 M |
| Approved $\Delta$ : |  |
| $\Delta$ Exposures | -3.9\% |
| $\Delta$ Premium | -5.0\% |
| \# Cells With Credit | 159 |

April 1, 2014 Credit Offer

|  | Res Mkt <br> PY |
| ---: | :--- |
| $\underline{\text { Share }}$ |  |

Tot Mkt 4,394,788
Potential Cred
Eligible Exp 450,416
\% Total 10.2\%

Potential Prem 757.9 M
Approved $\Delta$ :
$\Delta$ Exposures $\quad \mathbf{- 1 . 8 \%}$
$\Delta$ Premium
-3.5\%
\# Cells With Credit 148

April 1, 2015 Credit Offer

|  | Res Mkt |
| ---: | :---: |
| $\frac{\text { PY }}{}$ | $\frac{\text { Share }}{2.71 \%}$ |
| $8 / 12$ | $2.29 \%$ |
| $8 / 13$ | $2.68 \%$ |
| $8 / 14$ | 1.68 |
|  |  |
| ID 9 | Expos |
| Tot Mkt | $4,446,849$ |

Potential Cred
Eligible Exp 419,049
\% Total $9.4 \%$

Potential Prem 705.8 M

## Approved $\Delta$ :

$\Delta$ Exposures
$\Delta$ Premium
-10.7\%
\# Cells With Credit 127


Commonwealth Automobile Reinsurers
225 Franklin Street Boston, Massachusetts 02110
www.commauto.com
617-338-4000
Ralph A. Iannaco
President

December 18, 2009

## BULLETIN NO. 918

## DECISION

## PROPOSED CHANGES TO RULES OF OPERATION

Rule 28 - Application Process
Rule 29 - Assignment Process
Proposed changes to the Rules of Operation amending Rule 28 - Application Process and Rule 29 - Assignment Process were filed with the Commissioner of Insurance on November 18, 2009. The proposed changes were furnished to all Members and interested parties as Bulletin No. 915, dated November 18, 2009.

Under the provisions of Article X of the Plan of Operation, the Commissioner has approved the amendment to Rule 29.F. and disapproved proposed amendments to Rules 28.C.1. and 29.E. Additionally, these Rules have been remanded to CAR for further consideration. Attached is the Commissioner's correspondence on the proposed amendments.

Please bring this information to the attention of all interested parties. The Rules of Operation, including the approved change, is available on CAR's website.

RALPH A. IANNACO
President
Attachment

# COMMONWEALTH OF MASSACHUSETTS Office of Consumer Affairs and Business Regulation DIVISION OF INSURANCE <br> One South Station • Boston, MA 02110-2208 <br> (617) $521-7794 \cdot$ FAX (617) 521-7475 <br> TTY/TDD (617) 521-7490 <br> http://www.mass.gov/doi 

DEVAL L. PATRICK GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

GREGORY BIALECKI SECRETARY OF HOUSING AND ECONOMIC DEVELOPMENT

BARBARA ANTHONY UNDERSECRETARY

JOSEPH G. MURPHY
ACTING COMMISSIONER OF INSURANCE

December 18, 2009

## VIA ELECTRONIC AND REGULAR MAIL

Ralph A. Iannaco, President
Commonwealth Automobile Reinsurers
225 Franklin Street
Boston, Massachusetts 02110
Re: Proposed Amendments to Rules 28 and 29 of the Massachusetts Automobile Insurance Plan

## Dear Mr. Iannaco:

On November 18, 2009, the Governing Committee of the Commonwealth Automobile Reinsurers ("CAR") voted to amend Rules 28.C . 1 and 29. E and F of the Massachusetts Automobile Insurance Plan ("MAIP"). The proposed amendments address the following issues: 1) premium deposits (Rule 28.C.1); 2) new credit factors for policies with effective dates from April 1, 2010 through March 31, 2011 (Rule 29.E); and 3) the household procedure rule (Rule 29.F.2). The proposed amendments were distributed to CAR members and submitted to me for my review. I have carefully reviewed them and am disapproving CAR's proposals for Rule 28.C.1 and Rule 29.E, for the reasons stated below, and approving the proposed amendment to Rule 29.F.2.

## Rule 28.C. 1

Rule 28.C. 1 relates to the deposit premium requirements for MAIP applicants who qualify as Eligible Risks. CAR's proposals require revision to ensure that the MAIP rules are consistent with the statutory requirements for residual market eligibility in G.L. c. $175, \S 113 \mathrm{H}(" \S 113 \mathrm{H} ")$ and for deposits on motor vehicle insurance policies in G.L. c. $175, \S 113 \mathrm{E}$ (" $\S 113 \mathrm{E}$ "). The first paragraph that CAR proposes to add to Rule 28.C.1.a relates not to the calculation of a deposit premium but instead to a condition of eligibility for the MAIP; specifically the satisfaction of any obligation to pay premium owed. For that reason, it should be deleted. ${ }^{1}$

[^2]As support for its proposal to amend Rule 28.C.1, CAR expresses concern that an ARC who receives a MAIP assignment cannot cancel a policy if an applicant has failed to pay premium owed, apparently to a previous insurer. The proposed amendment seeks to require an ARP to collect such unpaid premium and to forward it to the Member to which it is owed. CAR's proposal would expand an ARP's responsibilities and require it to collect unpaid premium for a company with which it does not do business. We believe it is inappropriate to require an ARP to do more than verify that the applicant and any other person who usually drives the motor vehicle do not owe premium for a policy that was in effect during the preceding 12 months, as required by Rule 31.B.3.e., unless the ARP places other business with the company to which the premium is owed. ${ }^{2}$ In other circumstances, although an ARP may choose to assist an applicant in removing nonpayment of premium as an impediment to MAIP eligibility, he or she should not be required to serve as a collector for a previous insurer.

The second paragraph in CAR's proposed amendment to Rule 28.C.1.a, and its proposed amendment to Rule 28.C.1.b, relate to determining the deposit premium for, respectively, new and renewal MAIP business. Both sections permit collection of a higher deposit premium from an Eligible Risk if the applicant has had an automobile insurance policy cancelled for non-payment of premium during the preceding 24 months. ${ }^{3}$ Section 113E sets a maximum limit of 30 percent on motor vehicle insurance deposit premiums, but allows higher deposits if the applicant for insurance "has been in default" for payment of such premium within the past 24 months. Non-payment of premium is a permissible reason for an insurer to cancel a motor vehicle policy, but an ARC's issuance of a notice of cancellation for non-payment will not result in an actual cancellation if the insured pays the overdue premium and any related service charges before the cancellation date in the notice. The text of Rules 28.C.1. a and b requires amendment to clarify that the rules relating to a higher deposit premium apply only if the applicant had a prior motor vehicle policy actually cancelled for non-payment within the past 24 months.

CAR's proposed amendments relating to the permissible higher deposit premium differ depending on whether the policy is new or renewal business. For new business, Rule 28.C. 1 now requires an Eligible Risk who has had a policy cancelled for nonpayment within the past 24 months, and therefore does not qualify for a payment plan, to make a deposit of the full premium generated using the MAIP rates. ${ }^{4}$ Because of the Lane-Bolling Amendment, for most applicants the actual premium charged by the ARC is significantly less than the MAIP premium. Calculating the deposit premium on the

[^3]MAIP rate for the purpose of determining the 100 percent down payment frequently generates deposit premiums in excess of the ultimate premium. ${ }^{5}$ The current rules on deposit premiums burden consumers and we urge CAR to amend Rule 28.C.1.a to alleviate that burden. To improve the accuracy of the deposit premium, we recommend that the rule require a down payment for new business of no more than 80 percent of the estimated MAIP premium rather than the current 100 percent of that premium. The ARC shall send the applicant a notice of any upward or downward adjustments to the deposit premium with the final coverage selections page. The applicant may be required to pay any additional deposit premium within 30 days of the date on the coverage selections page. During that 30 -day period an insurer may not cancel a policy for non-payment of premium. The ARC shall return any downward deposit premium adjustment to the applicant within 30 days.

The amendment to Rule 28.C.1.b states that the ARC may elect to require payment of 100 percent of the renewal premium if the policyholder has had a policy cancelled within the past 24 months. The statutory reference incorrectly reflects $\S 113 \mathrm{E}$ and should therefore be removed from CAR's proposal. ${ }^{6}$ Each ARC may determine what it will accept as a deposit premium on renewal policies.

I am therefore remanding Rule 28 back to CAR for changes to Rule 28.C.1. that address the above issues.

Rule 29. E.
Rule 29.E requires CAR to review credits for each rate year and to submit them to the Commissioner for approval. MAIP credits are intended to control the size of the residual market and to provide an incentive for companies to voluntarily write private passenger auto insurance in those territories and classifications that would otherwise be disproportionately represented in the MAIP. CAR proposes new credit factors for policies with effective dates from April 1, 2010 through March 31, 2011. It points out that the selected factors represent a 26.4 percent decrease in credit-eligible exposures and a 43.3 percent decrease in available credit premium. CAR states that the new factors reflect residual market share data representing actual MAIP results, and, unlike prior credit year indications, are not heavily weighted by ceded market results. It notes that it selected separate credit factors for experienced and inexperienced drivers, to address the difference in average MAIP premium and concerns about the need for a higher weight on territorial credits to provide an incentive to depopulate urban areas more highly represented in the residual market.

The measurement of the MAIP's volume and of the proportionate representation within it is complicated somewhat by the transition both to the MAIP and competitive rating. The percentage of vehicles insured through the residual market has declined slightly between the nine-month period from January 1, 2008 through September 30, 2008 and the nine-month period beginning January 1, 2009 and ending September 30,

[^4]2009. ${ }^{7}$ All else equal, this reduction suggests that it may be appropriate to reduce the number of vehicles that are eligible for the MAIP credit.

The Division has examined market data and considered the effect that CAR's proposed credits will have on operator groups and territories that are disproportionately represented in the residual market. Based on the most recently available proportion of vehicles insured through the residual market, principal operators licensed six years or less and risks in Chelsea, Hyde Park, Dorchester, Roxbury, East Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton continue to be disproportionately represented in the residual market. ${ }^{8}$ The proportion of principal operators licensed six years or less in the residual market is 3.66 times higher than the statewide average; that ratio has changed little since 2005, when it was 3.45 . The proportion of risks from the above territories written in the MAIP, as a group, is approximately three times higher than the statewide average; for each individual community the ratio of MAIP policies is at least 2.5 times higher than the statewide average. As with inexperienced operators, since 2005 the relative representation of this group of communities in the residual market is virtually unchanged. The appreciable decline in the proportion of risks insured through the residual market in Hyde Park, Dorchester, Roxbury, East Boston, Charlestown, Lowell and Lawrence, is offset by increases in the relative representation of Lynn and Brockton. Therefore there appears to be a significant and continued need for credits for those operator classes and territories.

The Division's analysis of CAR's proposed changes to Rule 29 finds that its proposal will not serve to reduce the disproportionate share of the above risk class and territories in the MAIP. The Division estimates that CAR's proposal will reduce the credit premium for principal operators licensed six years or less by 67 percent and also reduce the credit premium available in the above communities by 14 percent. Since MAIP quota share and credits are measured on the basis of premium, CAR's proposal is unlikely to increase the voluntary writing of vehicles in these areas.

Transition to the MAIP will not be complete on April 1, 2010. To avoid growth of that market, the credit system must strongly encourage insurers to develop the operations necessary to serve the high risk private passenger motor vehicle insurance markets. Because such competency takes time to acquire, stable market expectations facilitate insurers' willingness to insure high risks voluntarily. While reduction in the overall size of the residual market may warrant some adjustment to the number of credit eligible vehicles, the lack of progress in achieving proportional balance of risk by operator class and territory indicates that the overall level of credit premium should remain relatively stable for the foreseeable future. I am therefore remanding Rule 29 back to CAR for changes to Rule 29.E. 2 that satisfy the following criteria:

1. The overall MAIP premium credits shall not decline by more than five percent from the current credits.

[^5]2. Credit premium available for the 11 territories noted above, as a group, shall increase by at least 25 percent, and no individual territory in the group shall have a reduction in credit premium of more than 15 percent.
3. Credit premium for principal operators licensed six years or less shall not be reduced by more than 20 percent for that operator group as whole.

In summary, pursuant to my authority under Article $X$ of the CAR Plan of Operation, I am approving CAR's proposed amendment to Rule 29.F and disapproving CAR's proposed amendments to Rule 28.C.1 and to Rule 29.E. Rules 28.C. 1 and 29.E are remanded to CAR for revisions that address the Division's concerns and are consistent with its suggestions. CAR is to submit its revisions within thirty days.


Commonwealth Automobile Reinsurers
225 Franklin Street Boston, Massachusetts 02110 www, commauto. com

617-338-4000
Daniel R. Judson
President

## BULLETIN NO. 953

## DECISION

# PROPOSED CHANGES TO THE RULES OF OPERATION 

Rule 21 - General Provisions<br>Rule 26 - Policyholder Rights and Responsibilities<br>Rule 29 - Assignment Process<br>Rule 36 - Limited Assignment Distribution Agreements

Proposed changes to the Rules of Operation amending Rules 21, 26, 29 and 36 were filed with the Commissioner of Insurance on November 18, 2011. The proposed changes were furnished to all members and interested parties as Bulletin No. 950, dated November 18, 2011.

Under the provisions of Article X of the Plan of Operation, a proposed Rule of Operation becomes effective either upon approval by the Commissioner of Insurance, or upon expiration of 30 days from the time of submission, provided that no public hearing was requested within 5 days by an interested party and the Commissioner has not otherwise disapproved the Rule change within the 30-day period.

The Commissioner of Insurance has, in correspondence dated December 19, 2011, issued his decision disapproving the proposed amendments to Rules 21.D., 29.E.2., 29.E.3., 36.C.iii, 36.D.1. and 36.D.2. The remainder of the proposed amendments to Rules 21, 26,29 and 36 are approved as filed. A copy of the decision is attached.

Please bring these changes to the attention of all interested parties. The Rules of Operation, including all approved changes, are available on CAR's website.

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

December 19, 2011

## VIA ELECTRONIC AND REGULAR MAIL

Daniel R. Judson, President
Commonwealth Automobile Reinsurers
225 Franklin Street
Boston, MA 02110
Re: Proposed Amendments to Rules 21, 26, 29, and 36 of the Massachusetts Automobile Insurance Plan

Dear Mr. Judson:
On November 18, 2011, the Governing Committee of the Commonwealth Automobile Reinsurers ("CAR") voted to amend Rules 21, 26, 29, and 36 of the Massachusetts Automobile Insurance Plan ("MAIP"). The proposed amendments address the following issues: (1) restrictions on the non-renewal of clean-in-three risks (Rules 21.D., 21.F., and 29.H.); (2) update references to the Assigned Risk Company Procedures Manual and other edits (Rule 26); (3) voluntary credits (Rules 29.E.1. and 29.E.2); (4) take-out credits (Rule 29.E.3); and (5) miscellaneous editorial changes (Rule 36). The proposed amendments were distributed to CAR members and submitted to me for review. I have carefully reviewed CAR's proposed amendments and, for all the reasons set forth below, I am approving such proposed changes with exception of CAR's proposed amendments to Rules 21.D, 29.E.2, 29.E.3, 36.C.iii, 36.D. 1 and 36.D.2.

## Rule 21.D

CAR's proposed amendments to Rule 21.D concern additional protections for clean-in-three ("CIT") drivers. The proposal sets forth a new end date for the period within which Members may not non-renew most CIT risks. The proposal also sets forth limited reasons under which a CIT risk may be non-renewed between certain time periods.

Rule 21.D currently provides that CIT risks with renewal dates from April 1, 2008 through March 31, 2012 cannot be non-renewed by a Member unless: (1) the CIT risk chooses, at their own initiative, to not renew their policy with such Member; (2) the producer terminates their relationship with a Member and transfers their book of business, including the CIT risk, to a new Member; or (3) the Member terminates its relationship with a producer and the producer transfers their book of business, including the CIT risk, to a new Member. CAR now proposes to extend the date during which CIT risks may not be non-renewed to the period of April 1, 2008 through March 31, 2014. For the reasons set forth below, this change is unnecessary and is therefore disapproved.

Proposed Rules 21.D.3, 21.D. 4 and 21 D. 5 phase out the prohibition on a Member nonrenewing CIT risks written by producers without voluntary contracts. Rule 21.D. 3 states that policies effective April 1, 2012 through March 31, 2013 may not be non-renewed by a Member if the producer does not have a voluntary contract with a Member as of April 1, 2009. Similarly, Rule 21.D. 4 states that policies effective April 1, 2013 through March 31, 2014 may not be non-renewed by a Member if the producer does not have a voluntary contract with a Member as of April 1, 2010. Finally, Rule 21.D. 5 states that, for policies effective April 1, 2014 and subsequent, the restriction on non-renewing a CIT risk no longer applies. The rule further provides that CAR must confirm that end date no later than December 13, 2013.

The Division notes that if CAR's intention is to phase out the prohibition on non-renewals of CIT risks over an additional two year period (i.e. until March 31, 2014), then extending the prohibition on such non-renewals through March 31, 2014 in proposed Rule 21.D. 1 is at best contradictory with proposed Rules 21.D. 3 and 21.D.4, and at worst subsumes those rules such that no CIT risk that has a renewal date prior to March 31, 2014 may be non-renewed, regardless of the status of the producer of that policy. ${ }^{1}$ The Division does not object to CAR proposal to phase out the prohibition on non-renewals of CIT risks, however, such intention must be unambiguously articulated in the rules. For these reasons, Proposed Rules 21.D.1 21.D.3, 21 D. 4 and 21.D. 5 are disapproved.

Proposed Rule 21.D. 2 provides that for polices effective prior to April 1, 2012, a CIT risk cannot be non-renewed by a Member. This proposal appears to be a blanket prohibition on nonrenewing any CIT risk through April 1, 2012, which is inconsistent with other portions of Rule 21.D.1. For this reason, proposed Rule 21.D. 2 is disapproved.

[^6]
## Rule 29.E. 2

Rule 29.E requires CAR to review credits annually and to submit them to the Commissioner for approval. MAIP voluntary credits are intended to control the size of the residual market and to provide an incentive for companies to voluntarily write private passenger automobile insurance in those territories and classifications that would otherwise be disproportionately represented in the MAIP. CAR proposes new credit factors for policies with effective dates from April 1, 2012 through March 31, 2013: It points out that the selected factors represent essentially no change to credit eligible exposures and a $10.2 \%$ decrease in available credit premium.

The statutory purpose of residual market credits is to control the size of the residual market. For the purpose of keep-out credits, this means that the percentage of the total private passenger automobile insurance market that is eligible for credit will increase as the size of the residual market increases, and decrease as the size of the residual market decreases. If keep-out credits are to effectively control the size of the residual market, the criteria for determining whether a market segment is eligible for keep-out credit must include a target residual market size and a well-defined process that allows a market segment's credit eligibility to adjust with changes in residual market share. Residual market share, defined as the ratio of vehicles insured through the residual market over total insured vehicles, effectively communicates the industry's ability and willingness to provide coverage in all market segments.

CAR's 2010 and 2011 credit offers determined market segments to be "credit eligible" (i.e. disproportionately represented in the residual market) if the twelve-month moving residual market share was more than $5.0 \%$. I have accepted this standard for determining credit eligibility in the past because it reflects a reasonable variance around a target residual market share. I believe a total residual market share target of $2.0 \%$ is reasonable for Massachusetts because of its very small uninsured vehicle population. While the size of the residual market has declined since the introduction of the MAIP, data indicate that the residual market still is a considerable distance from the $2.0 \%$ target.

| $\frac{\text { Year }}{2007}$ | Residual Market Share |
| :---: | :---: |
| 2008 | $4.3 \%$ |
| 2009 | $3.5 \%$ |
| 2010 | $2.7 \%$ |
| 2011 through September 30 | $2.6 \%$ |
| $2.8 \%$ |  |

Source: CAR residual market volume report
The Division's analysis of the variance in residual market share across rating territory and operator class consistently indicates a standard deviation about the average of approximately $3.0 \%$. A $5.0 \%$ residual market share standard for identifying market segments as credit eligible means their actual residual market share must be higher than one standard deviation above the target residual market share. Based on the residual market share data considered by CAR in the development of its 2012 credit program, approximately $89.0 \%$ of all vehicles have a residual market share less than $5.0 \%$. This means that approximately $11.0 \%$ of the market is currently eligible for keep-out credit.

The consistent application of the $5.0 \%$ residual market share standard over time will allow the credit structure to rationally respond to changes in actual residual market share. If the observed standard deviation across residual market share declines with an attendant decrease in average residual market share, use of the $5 \%$ standard will indicate a greater proportion of the total market as ineligible for residual market credit. If the observed standard deviation across residual market share declines over time with an attendant increase in average residual market share, the use of the $5.0 \%$ standard will indicate a smaller portion of the total market as ineligible for residual market credit. This sort of data driven process is essential to the fair application of a credit program.

CAR's proposed credit values to be effective on April 1, 2012 are partially based on a $7.5 \%$ residual market share standard for credit eligibility, and partially based on a "halfway" proposal. Without a clear and consistent standard for determining credit eligibility in the face of residual market share changes over time, I am not confident that CAR's 2012 proposed credits will operate to control the size of the residual market or enhance the prospects that no market segment is disproportionately insured through the residual market.

The 2010 credit offer was the industry's first attempt at developing a credit program with a fully implemented MAIP in the context of a competitive market. The program developed was designed to meet certain conditions outlined in my order to CAR dated December 18, 2009. The method used to develop the 2010 credits was updated to produce the 2011 credit program without adjustment.

It appears from the results that the method underlying the 2010 credit program has done little to reduce the size of the residual market towards the $2.0 \%$ goal. Additional inspection of the residual market shares since the introduction of the 2010 credit program indicate that, while the program was reasonably successful in reducing the disproportionate residual market share of principal operators licensed less than six years, it was not at all successful in reducing the disproportionate residual market share of certain cities. Since the 2010 credit program was implemented, the residual market share for principal operators licensed less than six years dropped from being 3.66 times higher than the statewide average to being 2.46 times higher. Yet, despite this progress, the residual market share for the communities of Chelsea, Hyde Park, Dorchester, Roxbury, East Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton as group increased from being three times higher than the statewide average to 3.4 times higher. The individual residual market shares for each of these communities continue to be at least 2.5 times higher than the statewide average.

The reason for this outcome likely is due to the fact that the current keep-out credit program, on average, has a lower value than a take-out credit or an assignment through the MAIP. The Division's analysis of the 2010 and 2011 credit programs indicate that the average credit adjusted MAIP liability rate under each program was considerably less than the average MAIP liability rate that would otherwise be used to adjust quota share when an assignment is made as shown in the table below.

| Year | Credit Eligible* <br> Average MAIP Rate | Credit Adjusted <br> Average MAIP Rate | Credit Adjusted/ <br> Credit Eligible |
| :---: | :---: | :---: | :---: |
| 2010 | $\$ 914.30$ | $\$ 716.92$ |  |
| 2011 | $\$ 1,146.98$ | $\$ 905.32$ | $78.4 \%$ |

${ }^{\text {** }}$ MAIP rates are the base rates in effect when the credit offer was prepared and include $20 / 40$ bodily injury liability (Parts $1 \& 5$ ), $\$ 5,000$ property damage liability, $\$ 0$ deductible personal injury protection, and 20/40 uninsured vehicle. MAIP rates used to compute each average are those in effect at the time the credit program was developed.

A keep-out credit program that has a smaller effect on quota share than the effect of a MAIP assignment is not likely to encourage insurers to voluntarily begin or expand operations in otherwise costly or high risk market segments. Such an incentive is necessary to controlling the size of the residual market.

The source of this undervaluation is clearly in the credit values offered for operators licensed more than six years. Based on a $5.0 \%$ residual market share standard for credit eligibility, this group of operators constitutes $70.0 \%$ of all credit eligible operators. All credit values for this operator class currently are less than 1.0. Keep-out credits for this class only are available in the communities of Chelsea, Roslindale, Hyde Park, Dorchester, Roxbury, East Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton.

Based on the 2011 meeting notices and records of the CAR Actuarial Committee, the 2010 method for calculating credits again was updated for consideration in the preparation of the 2012 credit program. Based on CAR's update, the number of credit eligible risks would increase by $3.1 \%$, and the average MAIP premium credit would decline by about $12.0 \%$ relative to the 2011 credit program. Based on the Division's review of the results of this update, continuation of the credit program established in 2010 would only make matters worse. The expected relationship between the average credit adjusted MAIP rate and the average credit eligible MAIP rate would drop from roughly $78.0 \%$ to $70.0 \%$ if the 2012 credits were based on an update of the 2010 credit program. The results of that update would not improve the likelihood that residual market shares would decline in certain communities, and, moreover, likely would undo some of the progress made with respect to depopulating the MAIP in connection with principal operators licensed less than six years. The actual 2012 credit program proposed by CAR produces similarly unacceptable results.

The process that CAR has used for establishing credits since 2009 lacks foundation and objectivity. I am not able to conclude that any of the so-called credit programs considered by CAR with regard to the proposed keep out credits will facilitate further reductions in residual market share, or that they will result in a fair allocation of residual market obligations. The current process fails in the following ways:

1. The process has no established basis for determining which market segments qualify for keep-out credit over time that is strictly based on changes in residual market share.
2. The process applies inconsistent values of credits based on common residual market share results. As a result, the credit value for a particular market segment is not based on actual levels or changes in the residual market share for that segment. This is contrary to the statutory goals of residual market credits.
3. The process does not contain a formal method for determining an "indicated" residual market share group from which a credit value can be assigned that is based on the recent changes in the residual market share for each market segment.

For all of these reasons, I cannot approve the proposed changes to Rule 29.E.2.
Because there are many reasons individual insurers may pursue or withdraw from certain market segments in any given year, all of which will affect residual market share, the process for determining credit eligibility and values must consistently recognize changes over time. The process must be able to accommodate market segments where residual market share is increasing as well as decreasing.

Changes in residual market share often are triggered by changes in rate adequacy. Under competitive rating, rates now change on the basis of need, rather than on a date specified in a statute, and the annual credit update does not need to be anything more than an update of each market segments' credit eligibility status based on actual residual market share results.

The process for determining credit eligibility and values must be based on principles of fairness and balance. Changes in both measures should be triggered directly by changes in market conditions as measured by changes in residual market share. The process must be transparent and predictable so that individual insurers can compete on a level playing field in the voluntary market. To that end, the specific criteria for determining credit eligibility and a fixed scale of credit values based on residual market share should be specified in Rule 29.E.2, in addition to the actual tables of credit factors associated with each year.

I am remanding Rule 29.E. 2 back to CAR to correct the deficiencies I have noted with the current process. I will approve revisions to Rule 29.E.2. that include substantially all of the features in the attachment to this letter. I will disapprove any proposal that produces a keep out credit program that offers an average credit adjusted MAIP liability premium that is less than the average MAIP liability premium that would be used to adjust quota share had the risk been assigned through the MAIP.

## Rule 29.E. 3

Rule 29.E. 3 outlines the eligibility requirements for a policy to be eligible for take- out credit. The current rule allows take-out credit for policies with effective dates on or after April 1, 2009 that were previously insured through the MAIP or that had been ceded to CAR (CAR ID Codes 4 and 5) that it writes voluntarily at the expiration of that policy. A Member may receive a

Letter to Daniel R. Judson, President
Commonwealth-Automobile Reinsurers
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credit for the first year in which an Eligible Risk is written voluntarily after the expiration of the policy previously issued through the residual market.

CAR proposes two changes to Rule 29.E.3. The first change is to amend the current rule language described above to apply only to policies with effective dates of April 1, 2008 through March 31, 2009. The second change is to add a new paragraph that applies to policies with effective dates on or after April 1, 2009. Under the new language, take-out credit only will be available if the policy previously was insured through the MAIP and a Member offers to write the policy voluntarily at the end of the initial term of the policy or its first renewal. CAR points out that the reason for the proposed changes is due to recently approved procedures outlined in Rule 29.D.2. Rule 29.D. 2 describes a process that will be followed if the assigned risk company intends to nonrenew the policy at the end of an assigned policy's three year assignment period.

The procedures outlined in Rule 29.D. 2 apply only if the Assigned Risk Carrier intends to non-renew the policy at the end of its three year assignment period. The fact that the Assigned Risk Carrier has the option to non-renew the policy at that point does not mean the carrier will necessarily choose to non-renew the policy at that time. The eligibility for take-out credit is not now, nor was it ever intended to be, an option limited to the designated Assigned Risk Carrier. For this reason, and the fact that the proposed changes retroactively change the value of take out credits that have already been granted, I am disapproving CAR's proposed changes to Rule 29:E.3.

## Rule 36.C.iii, D.1, and D. 2

CAR has recommended that Rule 36.C.iii be eliminated. Rule 36.C.iii is an example that explains the rule regarding how the limitation of assignment volume under Limited Assignment Distribution Agreements should be calculated. I believe that example is useful as a tool to companies and to CAR, therefore, I am disapproving the proposed removal of the example in Rule 36.C.iii.

CAR also proposes editorial changes to Rule 36.D.1. CAR proposes to remove language and instead reference "market share pursuant to Rule 29.B." Rule 29.B makes no direct reference to the term "market share". The current language is consistent with the language in Rule 29.B. Further, because quota share is a premium based measure and "market share" is an exposure based measure that can also be premium based, it is important not to confuse the concepts. Therefore, I am disapproving the proposed changes to Rule 36.D.1 with the exception of the proposed removal of the term "non-fleet".

CAR additionally proposes editorial changes to Rule 36.D.2. I am disapproving these proposed changes for the same reasons noted above in connection with Rule 36.D.1, with the exception of the proposed removal of the term "non-fleet".

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In summary, pursuant to my authority under Article X of the CAR Plan of Operation, I am approving CAR's proposed amendments to Rules $21,26,29$, and 36 with the exception of the proposed amendments to Rules 21.D, 29.E.2, 29.E.3, 36.C.iii, 36.D.1, and 36.D.2. Rules 21.D and 29.E. 2 are remanded to CAR for revisions that address the Division's concerns and are consistent with its suggestions. CAR shall submit its revisions to the Division within thirty days of its receipt of this letter.


Attachment

## Determining Eligibility for Keep Out Credit

The statutory purpose of residual market credits is to control the size of the residual market. This implies that there is a tolerable proportion of the total market that will find coverage through the residual market, and that any market segment that exceeds that proportion is disproportionately represented in the residual market.

If keep out credits are to effectively control the size of the residual market, the criteria for determining whether a market segment is credit eligible must include a target residual market size and a well defined process that allows credit eligibility to adjust with changes in market behavior. Residual market share, defined as the ratio of vehicles insured through the residual market over total insured vehicles, effectively communicates the industry's ability and willingness to provide coverage in all market segments.

The 2010 and 2011 credit offers determined market segments to be "credit eligible" (i.e. disproportionately represented in the residual market) if the twelve month moving residual market share was more than $5 \%$. This is based on a $2.0 \%$ target residual market share plus on standard deviation of $3.0 \%$. While the size of the residual market has declined since the introduction of the MAIP, data indicate that the residual market is still a considerable distance from the $2.0 \%$ target.

| Year | Residual Market Share |
| :---: | :---: |
| 2007 | $4.3 \%$ |
| 2008 | $3.5 \%$ |
| 2009 | $2.7 \%$ |
| 2010 | $2.6 \%$ |
| 2011 through September 30 | $2.8 \%$ |

Source: CAR residual market volume report

Based on the residual market share data considered by CAR in the development of its 2012 credit offer, approximately $89 \%$ of all vehicles have a residual market share less than $5 \%$. This means that approximately $11 \%$ of the market is currently eligible for keep out credit.

Consistent application of the $5 \%$ residual market share threshold for credit eligibility would have produced the following expected volume of credit eligible exposures over the past four years.

Effective Date of Credit Offer
April 1, 2009
April 1, 2010
April 2, 2011
April 1, 2012

Credit Eligible Exposures*
834,738
$451,362 \quad-45.9 \%$
422,868
449,173

Percentage Change Over Prior Year
$-6.3 \%$
$+6.2 \%$

* Excludes motorcycles and miscellaneous vehicles; 2009 estimated.

The consistent application of the $5 \%$ residual market share threshold over time will rationally respond to changes in actual residual market share. If the observed standard deviation across residual market share declines with an attendant reduction in average residual market share, use of the 5\% standard will indicate a smaller proportion of the total market as eligible for residual market credit. If the observed standard deviation across residual market share declines over time with an attendant increase in average residual market, the use of the $5 \%$ standard will indicate a larger portion of the total market as eligible for residual market credit. This sort of data driven process is essential to the fair application of any credit program.

## Defining Residual Market Share Groups

If a keep out credit program is to align credit values with actual residual market results, the program must recognize the full range of residual market shares within the credit eligible group. Residual market shares between the first and second standard deviations of the target mean encompasses a significant proportion of the credit eligible market, and should be recognized as its own group. For market segments with residual market share results that are higher than the target average plus two standard deviations, the volume of credit eligible exposure underlying the residual market share results is smaller which in turn allows for wider fluctuation in results from year to year. Wider bands for defining residual market share groups at this level limits the degree to which abrupt changes in annual residual market share resulting from random variations affect the residual market share group assignment in any given year.
$6 \%$ residual market share groups were selected as being broad enough to accommodate random fluctuations in residual market share, but also narrow enough to evaluate whether true changes in the underlying residual market share have occurred. A summary of the residual market share groups is shown below.

Credit Eligible Market Segments

| Residual Market Group | Residual Market Share Range |
| :---: | :---: |
|  | $[0.0 \%, 5.0 \%)$ |
| 1 | $[5.0 \%, 8.0 \%)$ |
| 2 | $[8.0 \%, 11.0 \%)$ |
| 3 | $[11.0 \%, 17.0 \%)$ |
| 4 | $[17.0 \%, 23.0 \%)$ |
| 5 | $[23.0 \%, 29.0 \%)$ |
| 6 | $[29.0 \%, 35.0 \%)$ |
| 7 | $[35.0 \%, 41.0 \%)$ |
| 8 | $[41.0 \%, 47.0 \%)$ |
| 9 | $[47.0 \%, 100.0 \%]$ |

## Establishing Credit Values

The purpose of the MAIP quota share and credit options is to fairly allocate the costs of the residual market across the industry. The process of determining an insurer's residual market quota share is based on the MAIP premium for the risk ${ }^{1}$. Premium most accurately reflects the relative risk associated with the policy. Each residual market risk assigned to an insurer reduces the insurer's quota share by the amount of the MAIP premium for that risk.

When an insurer voluntarily insures a risk that is eligible for keep out credit, the same principle should apply. The insurer's quota share of residual market risk is reduced by the MAIP premium that would have applied to that risk if had it obtained insurance through the MAIP. In other words, the credit factor for a keep out credit is 1.0. Without such balance, the credit program is not likely to encourage insurers to voluntarily begin or expand operations in otherwise costly or high risk market segments which is necessary to controlling the size of the residual market.

Using the $5 \%$ residual market share standard to determine credit eligibility, the average MAIP rate can be computed at successive levels of residual market share. This provides an overview of the relative risk associated with credit eligible residual market share values. Using the MAIP base rates effective April 1, 2011 for liability ${ }^{2}$, the average MAIP rate for successive levels of residual market share are calculated below ${ }^{3}$.

| Average MAIP Liability Rate Based on Residual Market Share |  |  |
| :---: | :---: | :---: |
|  | 2011 Credit Eligible* | 4/1/11 Average MAIP |
| Residual Market Share Range | Exposures | Liability Base Rate ${ }^{* *}$ |
| [0.0\%, 5.0\%) | N/A | \$710.08 |
| [5.0\%, 8.0\%) | 150,401 | \$1,159.88 |
| [8.0\%, 11.0\%) | 233,358 | \$1,192.04 |
| [11.0\%, 17.0\%) | 49,387 | \$1,591.99 |
| [17.0\%, 23.0\%) | 10,511 | \$2,230.27 |
| [23.0\%, 29.0\%) | 1,403 | \$2,618.86 |
| [29.0\%, 35.0\%) | 3,872 | \$2,654.03 |
| [35.0\%, 41.0\%) | 0 | N/A |
| [41.0\%, 47.0\%) | 216 | \$2,616.00 |
| [47.0\%, 100.0\%] | 0 | N/A |
| *Excludes motorcycles and misceilan |  |  |

[^7]When the value of a keep out credit is equal to the MAIP premium, equity with the value of the quota share adjustment for a comparable MAIP assignment is easy to obtain. While the use of the otherwise applicable MAIP premium as the value of a keep out credit recognizes relative risk reasonably well, G.L. c. $175, \S 113 \mathrm{H}$ permits the use of higher multiples of MAIP premium as the basis for valuing credits if it enhances the prospect that insurers would voluntarily write certain market segments. Such adjustments are appropriate when certain classifications continue to demonstrate disproportionate representation after being identified as credit eligible.

Measuring the average residual market share for credit eligible risks by operator class provides an indicator as to whether or not there is value in enhancing the credit factor beyond 1.0 in order to encourage insurers to voluntarily write the risk. Assuming the $5 \%$ residual market share standard for credit eligibility had been used since 2009, the residual market shares used to develop the MAIP credit offer effective April 1, 2009 and the proposed credit offer effective April 1, 2012 produce the average residual market shares for credit eligible risks shown below ${ }^{4}$.

|  | Residual Market Share for Credit Eligible Risk |  |
| :--- | :---: | :---: |
| Operator Classification | Sept. 2008-Aug. 2009 | Sept. 2010-Aug. 2011 |
| Licensed 6+ Years, Under Age 65 | $7.7 \%$ | $8.9 \%$ |
| Licensed 6+ Years, Age 65 and over | $7.9 \%$ | $6.9 \%$ |
| Licensed 4-6 Years, Principal Operator | $10.7 \%$ | $8.9 \%$ |
| Licensed 4-6 Years, Occasional Operator | $9.0 \%$ | $7.9 \%$ |
| Licensed 1-3 Years, Principal Operator | $15.1 \%$ | $14.7 \%$ |
| Licensed 1-3 Years, Occasional Operator | $8.7 \%$ | $8.6 \%$ |
| Business Use | $9.1 \%$ | $6.1 \%$ |
| Total (excl. M/M) | $9.0 \%$ | $9.3 \%$ |

The above chart indicates that the most recent average residual market shares within the credit eligible market are reasonably uniform across operator class, with the notable exception of principal operators licensed less than three years.

This situation seems to indicate that a credit factor greater than 1.0 might be appropriate for market segments where the residual market share exceeds the highest average residual market share for any one operator class ${ }^{5}$. If such a factor was applied, the degree to which the average credit adjusted MAIP

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premium exceeds the value of the average MAIP premium adjustment that would apply in the event of an assignment is the value of the "enhancement" to reduce the disproportionate representation of certain market segments in the residual market. The following table provides an illustration of this concept.

| Residual Market | 2011 Credit <br> Eligible* <br> Exposures | 4/1/11 Average MAIP <br> Liability Base Rate** | Incentive <br> Credit <br> Vhare Range | Value |
| :--- | :---: | :---: | :---: | :---: |
| 4/1/11 Credit Adjusted <br> Average MAIP <br> Liability Base Rate** |  |  |  |  |
| $1-[5.0 \%, 8.0 \%)$ | 150,401 |  |  |  |

The assignment of the credit values above was based on the following principles:

1. A credit factor greater than 1.0 was selected for residual market share groups whose lower bound exceeds the average highest average residual market share by operator class for credit eligible risks.
2. The incremental increase in credit factor is the same for each incremental change in residual market share group.

Based on these criteria, the resulting average credit adjusted MAIP liability rate is $102.8 \%$ of the actual average MAIP liability rate for credit eligible risks. This provides a starting point for determining the indicated residual market share group for all market segments.

It is difficult to know in advance what market segments the industry will pursue in any given year. In the interests. of fairness, any credit offering should return the same credit value for the same residual market share.

## Determining Indicated Residual Market Groups Over Time

Since there many reasons individual insurers may pursue or withdraw from certain market segments in any given year, all of which will affect residual market share, the process for determining credit eligibility and values must consistently recognize changes over time. The process must be able to accommodate market segments where residual market share is increasing as well as decreasing.

One method for doing this is to develop decision logic for determining a market segment's residual market share group using the residual market shares underlying each of the two most recent credit programs in addition to the most recent residual market share data. This exercise will reveal whether or not the residual market share of a particular market segment is changing enough to warrant a change in residual market share group, and possibly a change in credit factor.

For example, the "indicated" residual market share group for operators licensed more than six years who are under the age of $65^{6}$ in Revere could be determined as follows:

1. The residual market share in Revere underlying the 2010 credit program was $5.04 \%$. Based on the previously defined residual market share groups, the residual market share group would be 1 .
2. The residual market share in Revere underlying the 2011 credit program was $4.89 \%^{8}$. Based on the previously defined residual market share groups, the residual market share group would be 0 .
3. The residual market share in Revere underlying the proposed 2012 credit program was $5.78 \%{ }^{9}$. Based on the previously defined residual market share groups, the residual market share group would be 1 .

This market segment presents an interesting situation when it comes to determining residual market share group. The residual market share for this segment has fluctuated around a boundary for residual market credit values. In two of the past three years, it was eligible for credit in residual market group 1. Variation about a residual market share boundary should not automatically change a market segment's eligibility for credit, or the value of the credit. In this case, since two of the three years indicate the same residual market share group, the proposed residual market share group for 2012 should be set

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equal to 1. CAR's proposed 2012 credit offer does not include this market segment because the segment was not credit eligible in the prior year.

As another example, consider the "indicated" residual market share group for operators licensed more than six years who are under the age of $65^{10}$ in Lowell:

- The residual market share in Lowell underlying the 2010 credit program was $6.91 \%{ }^{11}$. Based on the previously defined residual market share groups, the residual market share group would be 1 .
- The residual market share in Lowell underlying the 2011 credit program was $7.07 \%{ }^{12}$. Based on the previously defined residual market share groups, the residual market share group would be 1 .
- The residual market share in Lowell underlying the proposed 2012 credit program was $7.31 \%{ }^{13}$. Based on the previously defined residual market share groups, the residual market share group would be 1.

In this case, the residual market share group for this market segment has not changed in the last three years, thus strongly indicating that the 2012 residual market share group should remain unchanged along with the credit value associated with that group. CAR's 2012 credit offer proposes to reduce the current credit factor in this market segment by almost $50 \%$.

Finally, consider an example of the "indicated" residual market share groups for principal operators licensed less than three years who have no formal driver training in Brockton:

1. The residual market share in Brockton underlying the 2010 credit program was $49.5 \%^{14}$. Based on the previously defined residual market share groups, the residual market share group would be 9.
2. The residual market share in Brockton underlying the 2011 credit program was $40.75 \%{ }^{15}$. Based on the previously defined residual market share groups, the residual market share group would be 7 .

[^10]3. The residual market share in Brockton underlying the proposed 2012 credit program was $34.43 \%^{16}$. Based on the previously defined residual market share groups, the residual market share group would be 6 .

The residual market share of this market segment has steadily declined over the last three years indicating increased market willingness to voluntarily insure inexperienced operators. While this is certainly good news, fully reflecting the improvement in 2012 should be delayed until it is confirmed by next year's experience. In the instance where the indicated residual market share groups are different in each of the three years considered, the proposed 2012 residual market share group should be the median value of the three. This limits the likelihood that the residual market share group is reassigned in response to random variation in residual market results rather than a true signal of the industry's willingness to voluntarily insure this market segment. Using this decision logic, the proposed residual market share group should be 6 which is assigned a credit factor of 2.0. CAR's 2012 credit offer proposes to reduce the current credit factor in this market segment from 2.5 to 2.0 .

A complete summary of the results of this decision logic and the selected residual market share groups is contained in Exhibit A of this attachment.

[^11]
## Reasonability Check on the Level of Credit Enhancement

Once final credit values are assigned based on a market segment's selected residual market share group, the average credit adjusted MAIP liability premium that results from the credit program needs to be checked relative to the average MAIP liability premium for that would apply had all such risk been assigned.

Based on the credit program outlined above, the expected average credit eligible MAIP liability rates for credit eligible risk is as follows:

| Residual Market Share Group | 2011 Credit Eligible* Exposures | 4/1/11 Average MAIP Liability Base Rate** | Incentive Credit Value | 4/1/11 Credit Adjusted Average MAIP <br> Liability Base Rate** |
| :---: | :---: | :---: | :---: | :---: |
| 1-[5.0\%, 8.0\%) | 151,750 | \$1,166.95 | 1.00 | \$875.21 |
| 2-[8.0\%, 11.0\%) | 232,550 | \$1,190.44 | 1.00 | \$1,190.44 |
| 3-(11.0\%, 17.0\%) | 38,873 | \$1,418.83 | 1.00 | \$1,418.83، |
| 4-(17.0\%, 23.0\%) | 16,937 | \$2,144.48 | 1.25 | \$2,680.60 |
| 5-[23.0\%, 29.0\%) | 3,631 | \$2,561.90 | 1.50 | \$3,842.84 |
| 6-[29.0\%, 35.0\%) | 1,881 | \$2,667.59 | 1.75 | \$4,668.29 |
| 7-[35.0\%, 41.0\%) | 3,499 | \$2,670.34 | 2.00 | \$5,340.69 |
| 8-[41.0\%, 47.0\%) | 292 | \$2,598.00 | 2.25 | \$5,845.50 |
| 9-[47.0\%, 100.0\%] | 216 | \$2,616.00 | 2.50 | \$6,540.00 |
| Total Credit Eligible | 449,147 | \$1,267.29 |  | \$1,332.25 |

After making adjustments for changes in residual market share, the credit value scale produces a credit adjusted average MAIP liability rate that is $105.1 \%$ of the non-credit adjusted average MAIP liability rate for credit eligible risks. This appears reasonable in light of the fact that the average residual market share for credit eligible principal operators that have less than three years of experience is approximately $5.0 \%$ more than the statewide average residual market share for all credit eligible operators.


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* Selection Critieria:


[^13]





* Selection Critieria:



[^14]
## RECORDS OF MEETING

## ACTUARIAL COMMITTEE - SEPTEMBER 2, 2015

Members Present

Mr. Joseph F. Cofield - Chair<br>Mr. Geoffrey H. Arnold<br>Mr. Jonathan Blake<br>Mr. Alex F. Butensky<br>Mr. Christopher Dupill<br>Mr. Glenn R. Hiltpold<br>Mr. Tom Boyer ${ }^{(1)}$<br>Mr. Michael Petrarca, Jr.<br>Ms. Lynellen Ramirez<br>Mr. John P. Tierney<br>Ms. Meredith M. Woodcock

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

Substituted for:
${ }^{(1)}$ Mr. John V. Kelly
Not in Attendance:
N/A

### 15.01 Records of Previous Meeting

The Committee unanimously voted to approve the Records of the Actuarial Committee meeting of June 23, 2015. The Records have been distributed and are on file with CAR's Secretary.

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

Staff reviewed data exhibits requested by the committee at its last meeting, including loss ratio results for credit business, residual market share exhibits, and summary exhibits outlining the historical credit offers and relevant Division of Insurance (DOI) communications related to credits since 2010.

Staff then reviewed the following alternate credit models reflective of committee discussion at its last meeting:

- The current methodology as codified in Rule 29: estimates $74 \%$ reduction in credit eligible exposures and $64 \%$ reduction in available credit premium
- Freeze credits at 2015 factors for 2016: estimates no change in credit eligible exposures or available credit premium
- Average of current indications and prior year approved credit factors: estimates no change in credit eligible exposures and $32 \%$ reduction is available credit premium.
- Relative Range Methodology: estimates $23 \%$ reduction in credit eligible exposures and $22 \%$ reduction in available credit premium

Based on prior Committee discussions, the so-called Relative Range model attempts to define which class/territory cells are disproportionately represented in the Plan in light of the continued depopulation in all cells. The Relative Range model determines a residual market size threshold of $3.5 \%$, which is $70 \%$ of the current threshold. This result is derived by comparing the current state-wide residual market size of $1.38 \%$ to the "target" residual market size of $2.00 \%$. Residual market share groupings are then determined using market share ranges similar to those defined in the current Rule. The revised market share groupings are applied to all three years of data underlying the credit indications.

Mr. Geoffrey Arnold presented an alternate method for consideration, which determines the class/territory residual market size threshold of $2.5 \%$ to trigger credit eligibility. This definition of "disproportionate representation" is $50 \%$ of the current threshold and is derived by comparing the current state-wide residual market size of $1.38 \%$ to the 2012 market share of $2.75 \%$. Upper residual market share range groupings are also redefined by the same $50 \%$ factor. The adjusted market share ranges are applied to the current year of data only. This method results in an estimated $1.3 \%$ reduction in credit eligible exposures and a $1.6 \%$ reduction in available credit premium.

Mr. Arnold noted his concern that other methods under consideration may not address the requirement of M.G.L. c. $175, \S 113 \mathrm{H}$ that "the size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan". Specifically, he pointed out that his proposed model continues the availability of credits in the towns of Chelsea, Hyde Park, Dorchester, Roxbury, E Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton, which are towns where the need for credits was reinforced by the Commissioner in a letter in 2009.

Mr. Joseph Cofield distributed and reviewed an exhibit that modeled historical residual market shares by cell as compared to the statewide average. The model calculated credit premium using a factor of 1.0 for all cells with residual market shares at least two times the statewide average. Results for both the three and five year credit indications by classification and territory were included in the exhibit.

Mr. John Tierney distributed an analysis that projected the available credit exposures and premium under each model looking two years ahead and assuming that the market conditions remain as they are currently.

The current residual market share group methodology showed a decrease in credit eligible exposures of $77.3 \%$ from the current 2015 level included in the credit indications, as well as a decrease of $68.4 \%$ in credit eligible premium. The Relative Range methodology showed a decrease in credit eligible exposures of $51.0 \%$ from the current 2015 level included in the credit indications, as well as a decrease of $46.9 \%$ in credit eligible premium. The PRAC proposal showed an increase in credit eligible exposures of $48.6 \%$ from the current 2015 level included in the credit indications, as well as an increase of $37.0 \%$ in credit eligible premium.

Mr. Tierney observed an approximate $4: 1$ ratio of statistically reported credit premium to statistically reported Quota Share assigned premium dating back to the end of the first year of the DOI Residual Market Share Group methodology implementation, using data reported through March, 2013. As of July 2015, that ratio has grown to approximately $8: 1$, reflective of an increasing credit population and a reduction in the size of the residual market. Mr. Tierney concluded that the two year projection of
the Relative Range methodology results in a 4:1 ratio: a reasonable result to preserve the value of a credit without creating a disproportionate market for the transfer of excess credits.

Considerable committee discussion followed. Some members opined that the reduction in the size of the residual market is driven more by the competitive voluntary rates, and that a reduction in credits will not reverse this trend. However, those members suggested that if an increase in assignments is observed, then the formula is self-correcting. Other members, though, suggested that the selfcorrecting formula is overly responsive and therefore disruptive.

In order to determine whether there was a consensus forming, the Chair asked each committee member to identify his or her position. Five members supported the significant reduction in credits, favoring the current formula. However, 4 of those 5 would support the more gradual reduction resulting from the Relative Range model. Three members agreed that a reduction in credit volume is justified, but supported a more moderate reduction.

Two members favored little or no change to the current credits as resulting from the PRAC proposal, and expressed concern over the indicated decrease given the statutory requirements and previous Division of Insurance directives.

A brief discussion ensued relative to the Take-Out credit provision of Rule 29. The Committee unanimously voted to make no changes to Take-Out credits. The Committee then directed Staff to update the current model, the Relative Range model, and the PRAC model in order to continue discussion of voluntary credits at the its next meeting scheduled for Wednesday, October 7, 2015 at 10:00 a.m.

TIMOTHY F. GALLIGAN
Financial Services Coordinator
Boston, Massachusetts
September 11, 2015

## ATTACHMENT LISTING

Docket \#AC15.02, Exhibit \#2
Docket \#AC15.03, Exhibit \#15

Docket \#AC15.03, Exhibit \#16

Docket \#AC15.03, Exhibit \#17

Attendance Listing
Alternate Method for 2016 Credit Offer Prepared by Geoffrey Arnold

Historical MAIP Percentages by Cell Exhibit Prepared by Joseph Cofield

2 Year Projection Analysis Prepared by John Tierney



M E M O R A N D U M

September 2, 2015
TO: CAR Actuarial Committee
FROM: Geoff Arnold
RE: 2016 Credit Offer

Today the CAR Actuarial Committee will continue to discuss MAIP Quota Share credits for policies effective April 1, 2016 through March 31, 2017. There were four approaches presented as part of the Meeting Notice and a fifth distributed subsequently, which - when compared to the current credit offer (itself not very different from those of the past several years) - would have the following impact:

|  | $\Delta$ in Credit | $\Delta$ in Potential |
| :---: | :---: | :---: |
|  | Eligible | Credit |
| Methodology | Exposures | Premium |
| Market Share Group | -73.6\% | -64.0\% |
| Average of Mkt Shr Grp \& Current | 0.0\% | -32.0\% |
| Relative Range | -22.8\% | -21.7\% |
| Freeze | 0.0\% | 0.0\% |
| Indexed Market Share Group | -1.3\% | -1.6\% |

We are concerned that none of the first three methodologies would comply with the requirement of M.G.L. c. 175, §113H that: "the size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan."

This requirement has been addressed by the Commissioner of Insurance on two separate occasions - in a letter to CAR dated December 18, $2009^{1}$, disapproving a proposed credit offer for 2010, and again in a very similar letter dated December 19, $2011^{2}$, disapproving a proposed offer for 2012. In both instances, Commissioner Murphy made it clear that "MAIP credits are intended to control the size of the residual market and to provide an incentive for companies to voluntarily write private passenger auto insurance in those territories and classifications that would otherwise be disproportionately represented in the MAIP" and that any credit offer must be measured against that standard and that standard alone.

It is particularly important to note that in 2011 the Commissioner disapproved the very methodology that had been adopted two years earlier, as it was no longer consistent with the goals of the credit offer as stated above. It could not have been made any more clear that blind reliance on any methodology, no matter how relevant to past circumstances, is no substitute for sound analytics - and that each year's offer must be analyzed with respect to the statutory requirement that no territory or classification be disproportionately represented in the MAIP.

Since the more recent of the two credit offer rejections, the size of the MAIP has been halved from $2.8 \%$ of exposures in 2011 to $1.4 \%$ today. We have not only met the goal (2.0\%) for reducing

[^15]the size of the residual market but have exceeded it by a significant margin. Everyone involved deserves a pat on the back for that. But it remains as important as ever to maintain a focus on the disproportionate representation of the territories and classifications identified by the Division of Insurance as being of particular concern.

On both occasions the towns of Chelsea, Hyde Park, Dorchester, Roxbury, East Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton were analyzed, and the need for credits was reinforced. In the 2009 letter the Commissioner stated "Credit premium for the 11 territories noted above, as a group, shall increase by at least 25 percent, and no individual territory in the group shall have a reduction in premium of more than 15 percent." Two years later, MAIP usage for this group of towns was specifically noted as having risen from 3.0 times the statewide average to 3.4 times the statewide average. As a result, CAR's initial 2012 credit offer - which had held the percent of credit eligible exposures flat and decreased potential credit premium by about $10 \%$ - was revised, and a $4.1 \%$ exposure / $37.2 \%$ premium increase was implemented.

Largely as a result of this stronger 2012 credit offer - which has been maintained at a similar level for the three subsequent years - insureds in the eleven territories are now only 2.6 times as likely to be placed in the MAIP as average. Coincidentally, this degree of disproportionate representation is now very close to that of the other category of concern to the DOI (inexperienced principal operators), who are 2.4 times as likely to be placed in the MAIP as average. A credit offer sufficient to "enhance the prospects that no classification or territory is disproportionately represented in the plan" is essential - not only to maintain this favorable trend, but also to keep the MAIP at its impressively small volume as well.

The four credit offers approved for the April 1, 2012 through March 31, 2016 period have been sufficient to not only halve the size of the MAIP but also to reduce the disproportionate representation of the eleven key towns from 3.5 to 2.6 times average. A significant reduction from this level of credits can only result in a reversal of both trends. If our desire is to keep things stable, then the credit offer must be stable as well - either the freeze modeled by $\mathrm{CAR}^{3}$ or the Indexed Market Share Group approach - either of which produces a credit offer consistent with both the Massachusetts General Laws and the objectives repeatedly expressed by the Division of Insurance.

It is important to focus in particular on the impact of the credit offer on the eleven towns which remain of concern to the Division of Insurance. The five approaches before the Actuarial Committee differ widely in this respect. The following table, analogous to that containing the overall impact, measures solely the credit change for these towns:

|  | $\Delta$ in Credit | $\Delta$ in Potential |
| :---: | :---: | :---: |
|  | Eligible | Credit |
| Methodology | Exposures | Premium |
| Market Share Group | -76.2\% | -68.1\% |
| Average of Mkt Shr Grp \& Current | 0.0\% | -34.1\% |
| Relative Range | -35.3\% | -32.4\% |
| Freeze | 0.0\% | 0.0\% |
| Indexed Market Share Group | -0.7\% | -0.9\% |

[^16]Contrary to one of the explicit goals of the MAIP Quota Share Credit system (and the statutory requirement), the first three approaches would have an even greater detrimental impact on the eleven towns most disproportionately represented in MAIP than they would on the market as a whole. While a freeze of course has an identical lack of impact anywhere, the Indexed Market Share Group approach affects the eleven towns to a lesser degree than average, mainly removing credits where they are needed least.

Six years ago, the Commissioner rejected a $26.4 \%$ decrease in credit-eligible exposures and a $43.3 \%$ decrease in available credit premium, and he established a maximum decrease of five percent in credit premium as the criterion appropriate to the market conditions at that time. As noted above, the most recent indication is for a $73.6 \%$ overall decrease in credit-eligible exposures and a $64.0 \%$ overall decrease in available credit premium - much greater than the decreases objected to by the Commissioner in either 2009 or 2011. At the same time, the disproportionate representation of credit-eligible territories and classifications has moderated only slightly ${ }^{4}$. If one believes, as the Division of Insurance apparently does, that MAIP keep-out credits are responsible for keeping disproportionate representation in check, then a severe reduction in those credits is not appropriate. Once again - as it did in 2011 - the incumbent methodology requires some revision in order to remain consistent with goals of the credit offer.

The Indexed Market Share Group methodology replaces the ranges used in the current Market Share Group methodology with ones that are bounded by constant levels of disproportionate representation in MAIP (as shown in the supplementary exhibit distributed at today's meeting) enabling us to achieve this objective. The current lower bound of $5 \%$ for Group 1, for example, was equivalent to 1.82 times the average at the time the Market Share Group methodology was devised. If this bound is maintained at a level 1.82 times average (and others similarly adjusted), there need be no other change to that methodology. The exhibit does just this, and the result is a reduction in Credit Eligible Exposures of $1.3 \%$ and a reduction in Potential Credit Premium of $1.6 \%$.

CAR has a responsibility to submit a proposal to the Commissioner that is consistent with the statute. In order to do so, CAR should assign a sufficient volume of credits to cells that are disproportionately represented in the MAIP to ensure that those cells are not overrepresented in the MAIP. The assignment of credits to those cells should certainly be based on the degree to which their MAIP share currently exceeds the state-wide average - consistent with current methodology but either a freeze at the 2015 level or the Indexed Market Share Group approach is also appropriate at this time.

Thank you for your consideration of these comments.

[^17]
## 4/1/2015 Credit Factors

| Rate <br> Class | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 0}$ | $3,070,466$ | 293,247 | $437,702,290$ |
| $\mathbf{1 5}$ | 782,127 | 8,091 | $10,891,112$ |
| $\mathbf{1 7}$ | 144,383 | 60,950 | $115,233,840$ |
| $\mathbf{1 8}$ | 55,019 | 1,192 | $1,939,846$ |
| $\mathbf{2 0}$ | 34,282 | 33,449 | $116,472,201$ |
| $\mathbf{2 1}$ | 15,499 | 5,813 | $14,215,271$ |
| $\mathbf{2 5}$ | 74,621 | 3,973 | $14,864,458$ |
| $\mathbf{2 6}$ | 65,541 | 372 | $1,115,203$ |
| $\mathbf{3 0}$ | 62,038 | 523 | 798,566 |
| M/M | $\mathbf{1 6 6 , 4 2 2}$ | 19,116 | $4,231,745$ |
| Total | $\mathbf{4 , 4 7 0 , 3 9 8}$ | $\mathbf{4 2 6 , 7 2 7}$ | $\mathbf{7 1 7 , 4 6 4 , 5 3 4}$ |

4/1/16 Indicated - Relative Ranges

| Credit Eligible <br> Exposures |  |  |
| :---: | :---: | :---: |
|  | \% $\Delta$ |  |
| 293,247 |  | $0.0 \%$ |
| 8,091 |  | $0.0 \%$ |
| 60,950 |  | $0.0 \%$ |
| 337 | $-71.7 \%$ |  |
| 31,851 | $-4.8 \%$ |  |
| 4,196 | $-27.8 \%$ |  |
| 3,484 | $-12.3 \%$ |  |
| 0 | $-100.0 \%$ |  |
| 296 | $-43.5 \%$ |  |
| 18,652 | $-2.4 \%$ |  |
| $\mathbf{4 2 1 , 1 0 3}$ | $\mathbf{- 1 . 3 \%}$ |  |


| Potential <br> Credit Premium | $\underline{\%} \Delta$ |
| :---: | :---: |
| $437,702,290$ | $0.0 \%$ |
| $10,891,112$ | $0.0 \%$ |
| $115,233,840$ | $0.0 \%$ |
| 658,180 | $-66.1 \%$ |
| $113,008,894$ | $-3.0 \%$ |
| $10,479,364$ | $-26.3 \%$ |
| $13,212,120$ | $-11.1 \%$ |
| 0 | $-100.0 \%$ |
| 419,288 | $-47.5 \%$ |
| $4,123,902$ | $-2.5 \%$ |
| $\mathbf{7 0 5 , 7 2 8 , 9 9 0}$ | $\mathbf{- 1 . 6 \%}$ |

9.4\%

667,285,375
94.6\%
$\%$ of Total Mkt. Exp. $9.5 \% \quad 9.4 \%$

|  | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 678,766,758 } \\ 94.6 \% \\ \hline \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 667,285,375 \\ 94.6 \% \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original | Ranges: |  |  | Relative |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0.00 | 0.05 | 0 | 0 | 0.000 | 0.025 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.025 | 0.040 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.040 | 0.055 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.055 | 0.085 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.085 | 0.115 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.115 | 0.145 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.145 | 0.175 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.175 | 0.205 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.205 | 0.235 | 2.25 |
| 9 | 0.47 | 1.00 | 2.5 | 9 | 0.235 | 1.000 | 2.5 |

1.38\% Current Residual Market Rate Using Data Through May, 2015
2.8\% Base Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
$5.0 \%$ Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.75)=0.502$
2. Round the result from 1. above to the nearest 10 th $=0.5$
3. Multiply the result from 2. above by the original average residual market share threshold $(0.5 \times .05)=0.025$
4. Adjust the remaining bands in the same manner, rounding to 3 decimal places

## 4/1/2015 Credit Factors

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% 4 | Potential Credit Premium | \% 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 178,846 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| 2 | 240,517 | 1,071 | 2,136,317 | 1,071 | 0.0\% | 2,136,317 | 0.0\% |
| 3 | 516,709 | 2,389 | 4,958,166 | 2,389 | 0.0\% | 4,958,166 | 0.0\% |
| 4 | 328,044 | 1,323 | 3,128,040 | 1,323 | 0.0\% | 3,128,040 | 0.0\% |
| 5 | 503,612 | 2,979 | 6,640,413 | 2,979 | 0.0\% | 6,640,413 | 0.0\% |
| 6 | 337,265 | 1,686 | 4,381,658 | 1,686 | 0.0\% | 4,381,658 | 0.0\% |
| 7 | 346,203 | 13,242 | 21,955,577 | 13,242 | 0.0\% | 21,955,577 | 0.0\% |
| 8 | 198,142 | 6,783 | 11,898,661 | 6,783 | 0.0\% | 11,898,661 | 0.0\% |
| 9 | 197,535 | 8,959 | 16,771,593 | 8,248 | -7.9\% | 15,432,923 | -8.0\% |
| 10 | 95,365 | 4,425 | 8,333,668 | 4,425 | 0.0\% | 8,333,668 | 0.0\% |
| 11 | 72,051 | 622 | 2,067,094 | 622 | 0.0\% | 2,067,094 | 0.0\% |
| 12 | 193,543 | 7,214 | 14,969,401 | 7,214 | 0.0\% | 14,969,401 | 0.0\% |
| 13 | 209,132 | 17,789 | 26,280,639 | 17,789 | 0.0\% | 26,280,639 | 0.0\% |
| 14 | 71,888 | 6,624 | 14,066,453 | 6,624 | 0.0\% | 14,066,453 | 0.0\% |
| 15 | 25,481 | 2,572 | 5,523,585 | 2,416 | -6.1\% | 5,123,559 | -7.2\% |
| 16 | 13,716 | 12,349 | 19,409,286 | 12,203 | -1.2\% | 19,177,210 | -1.2\% |
| 17 | 17,221 | 394 | 935,879 | 394 | 0.0\% | 935,879 | 0.0\% |
| 18 | 16,024 | 13,819 | 20,313,141 | 13,819 | 0.0\% | 20,313,141 | 0.0\% |
| 19 | 15,535 | 507 | 1,369,708 | 507 | 0.0\% | 1,428,138 | 4.3\% |
| 20 | 17,850 | 14,698 | 22,950,553 | 14,698 | 0.0\% | 22,950,553 | 0.0\% |
| 21 | 47,126 | 45,990 | 92,918,729 | 45,990 | 0.0\% | 92,918,729 | 0.0\% |
| 22 | 15,070 | 15,070 | 32,426,892 | 14,943 | -0.8\% | 32,133,792 | -0.9\% |
| 23 | 44,947 | 2,840 | 7,306,664 | 2,653 | -6.6\% | 5,960,276 | -18.4\% |
| 24 | 24,678 | 1,240 | 2,582,239 | 468 | -62.3\% | 1,607,971 | -37.7\% |
| 25 | 16,489 | 501 | 1,420,658 | 455 | -9.2\% | 1,274,253 | -10.3\% |
| 26 | 21,310 | 1,627 | 4,331,949 | 1,335 | -18.0\% | 3,449,928 | -20.4\% |
| 27 | 410,054 | 1,599 | 2,794,681 | 0 | -100.0\% | 0 | -100.0\% |
| 40 | 20,429 | 16,563 | 22,445,108 | 16,411 | -0.9\% | 22,189,076 | -1.1\% |
| 41 | 58,493 | 50,381 | 59,922,425 | 49,678 | -1.4\% | 58,896,790 | -1.7\% |
| 42 | 73,196 | 59,487 | 96,870,257 | 59,080 | -0.7\% | 95,734,890 | -1.2\% |
| 43 | 47,219 | 39,711 | 65,489,722 | 39,711 | 0.0\% | 65,489,722 | 0.0\% |
| 44 | 33,392 | 29,611 | 38,826,123 | 29,611 | 0.0\% | 38,826,123 | 0.0\% |
| 45 | 50,680 | 42,661 | 82,039,256 | 42,334 | -0.8\% | 81,069,950 | -1.2\% |
| 99 | 12,637 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 421,103 | -1.3\% | 705,728,990 | -1.6\% |
| \% of Total Mkt. Exp. |  | 9.5\% |  | 9.4\% |  |  |  |

9.5\%

4/1/16 - Relative Ranges

Original Ranges:

| Group |  | Lower |
| :---: | :---: | :---: |
| 0 |  | 0.00 |
| 1 | 0.05 |  |
| 2 |  | 0.08 |
| 3 | 0.11 |  |
| 4 | 0.17 |  |
| 5 | 0.23 |  |
| 6 | 0.29 |  |
| 7 | 0.35 |  |
| 8 | 0.41 |  |
| 9 | 0.47 |  |


| Upper |
| :--- |
| $\mathbf{0 . 0 5}$ |
| 0.08 |
| 0.11 |
| 0.17 |
| 0.23 |
| 0.29 |
| 0.35 |
| 0.41 |
| 0.47 |
| 1.00 |

Relative Ranges:

| Group | Lower |
| :---: | :---: |
| 0 | 0.000 |
| 1 | 0.025 |
| 2 | 0.040 |
| 3 | 0.055 |
| 4 | 0.085 |
| 5 | 0.115 |
| 6 | 0.145 |
| 7 | 0.175 |
| 8 | 0.205 |
| 9 | 0.235 |


| Upper | Factor |
| :---: | :---: |
| 0.025 | 0 |
| 0.040 | 1 |
| 0.055 | 1 |
| 0.085 | 1 |
| 0.115 | 1.25 |
| 0.145 | 1.5 |
| 0.175 | 1.75 |
| 0.205 | 2 |
| 0.235 | 2.25 |
| 1.000 | 2.5 |

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.78\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.33\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.52\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.50\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.80\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.68\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.59\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.08\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.90\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - | 2016 | 437,702,290 | 293,247 |
| 23 | 3.63\% | 2.49\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 437,702,290 | 293,247 |
| 25 | 2.15\% | 1.50\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.87\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  | - | - |
| 41 | 5.88\% | 3.11\% | 2.57\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.88\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.51\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.33\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 6.64\% | 3.49\% | 2.91\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.43\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15 Relative Range Methodology

|  |  | Residual Market Share | Share | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.27\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.25\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.91\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - | 2016 | 10,891,112 | 8,091 |
| 23 | 2.82\% | 1.98\% | 1.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,891,112 | 8,091 |
| 25 | 1.73\% | 1.28\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 1.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.91\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.13\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  | Credits |  |
| 1 | 3.25\% | 2.47\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.21\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.54\% | 0 | 0 | 1 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 3.16\% | 0 | 0 | 1 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.85\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.43\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.83\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.35\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.71\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 4.01\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.38\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.43\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.71\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 6.18\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 6.94\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 10.03\% | 3 | 2 | 4 | 3 | 1.00 | 1.00 | - | Avail | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 10.21\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.70\% | 3 | 2 | 4 | 3 | 1.00 | 1.00 | - | 2016 | 115,233,840 | 60,950 |
| 23 | 8.79\% | 6.11\% | 5.46\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.90\% | 0 | 0 | 1 | 0 | - | - | - | 2015 | 115,233,840 | 60,950 |
| 25 | 6.65\% | 4.56\% | 3.40\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.78\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.44\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | - | - |
| 41 | 12.06\% | 6.14\% | 4.77\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.63\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 5.43\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.20\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 12.13\% | 6.63\% | 6.56\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 3.09\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.61\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.44\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 1.01\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 1.02\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 1.77\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 3.02\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 1.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 5.99\% | 1 | 1 | 3 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 2.44\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.08\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.49\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 658,180 | 337 |
| 23 | 2.12\% | 1.27\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,939,846 | 1,192 |
| 25 | 0.15\% | 1.68\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 1.26\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(1,281,667)$ | (855) |
| 41 | 7.29\% | 1.64\% | 1.51\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 1.73\% | 0 | 0 | 0 | 0 | - | - | - |  | -66.1\% | -71.7\% |
| 45 | 4.86\% | 3.11\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.97\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.35\% | 0 | 0 | 2 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 4.05\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.45\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.72\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.24\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.80\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.16\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.47\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 5.98\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 6.24\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 4.73\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.58\% | 3 | 1 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.43\% | 3 | 2 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.05\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 13.27\% | 4 | 3 | 5 | 4 | 1.25 | 1.25 | - |  |  |  |
| 16 | 26.59\% | 25.13\% | 19.78\% | 5 | 5 | 7 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 10.30\% | 4 | 2 | 4 | 4 | 1.25 | 1.25 | - |  |  |  |
| 18 | 20.86\% | 22.51\% | 13.75\% | 4 | 4 | 5 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.09\% | 3 | 3 | 6 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 21.63\% | 5 | 4 | 8 | 5 | 1.50 | 1.50 | - | Availa | e Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.05\% | 6 | 5 | 9 | 6 | 1.75 | 1.75 | - |  |  |  |
| 22 | 33.75\% | 22.17\% | 19.18\% | 6 | 4 | 7 | 6 | 1.75 | 1.75 | - | 2016 | 113,008,894 | 31,851 |
| 23 | 18.35\% | 10.83\% | 8.04\% | 4 | 2 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.75\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - | 2015 | 116,472,201 | 33,449 |
| 25 | 13.28\% | 13.16\% | 13.61\% | 3 | 3 | 5 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.82\% | 5 | 3 | 5 | 5 | 1.50 | 1.50 | - |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.29\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 40 | 24.85\% | 11.38\% | 12.36\% | 5 | 3 | 5 | 5 | 1.50 | 1.50 | - |  | $(3,463,308)$ | $(1,599)$ |
| 41 | 14.09\% | 9.23\% | 9.19\% | 3 | 2 | 4 | 3 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 10.10\% | 4 | 3 | 4 | 4 | 1.25 | 1.25 | - |  | rcent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 13.66\% | 4 | 3 | 5 | 4 | 1.25 | 1.25 | - |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.98\% | 5 | 3 | 6 | 5 | 1.50 | 1.50 | - |  | -3.0\% | -4.8\% |
| 45 | 20.07\% | 18.11\% | 15.95\% | 4 | 4 | 6 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 0.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.18\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21 Relative Range Methodology

|  | Residual Market Share |  |  | Indicat | Mkt Sha | Range | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits |  | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  | Change |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.45\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.83\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.51\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 1.82\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.35\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 2.12\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 4.10\% | 2 | 0 | 2 | 2 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.73\% | 2 | 0 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.82\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.14\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.89\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.68\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.94\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 5.62\% | 4.17\% | 0.72\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.59\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 4.13\% | 2 | 0 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 2.75\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 10,479,364 | 4,196 |
| 23 | 4.67\% | 4.48\% | 2.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 1.19\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,215,271 | 5,813 |
| 25 | 2.60\% | 0.00\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 1.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 5.37\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | $(3,735,907)$ | $(1,617)$ |
| 41 | 12.53\% | 5.33\% | 4.95\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.25\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.67\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.47\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - |  | -26.3\% | -27.8\% |
| 45 | 10.32\% | 2.31\% | 3.00\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.38\% | 0.00\% | -6.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.33\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Range | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.30\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.18\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.67\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.53\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.48\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 3.27\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.27\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.99\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.23\% | 3 | 0 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 3.66\% | 4 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 7.21\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 8.06\% | 0 | 3 | 3 | 3 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 5.27\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - | Availa | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.41\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.58\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 13,212,120 | 3,484 |
| 23 | 6.30\% | 3.39\% | 1.52\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 1.15\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,864,458 | 3,973 |
| 25 | 8.64\% | 0.00\% | 2.18\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.08\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 2.86\% | 0 | 0 | 1 | 0 | - | - | - |  | $(1,652,338)$ | (490) |
| 41 | 4.94\% | 4.21\% | 4.76\% | 0 | 0 | 2 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.87\% | 0 | 0 | 1 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 4.05\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.46\% | 2 | 0 | 2 | 2 | 1.00 | 1.00 | - |  | -11.1\% | -12.3\% |
| 45 | 7.15\% | 5.62\% | 6.23\% | 1 | 1 | 3 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.05\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.73\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26
Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | 2015 <br> Credits | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.48\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.71\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.36\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.06\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 1.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.54\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,115,203 | 372 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.87\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.78\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,115,203)$ | (372) |
| 41 | 3.25\% | 1.54\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 2.71\% | 0 | 0 | 1 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.81\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | (100) |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.57\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.30\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.64\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.57\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.90\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 3.39\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 2.62\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 1.39\% | 1.36\% | 1.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.97\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.44\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 419,288 | 296 |
| 23 | 0.98\% | 1.55\% | 1.14\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 798,566 | 523 |
| 25 | 1.31\% | 0.80\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.90\% | 0 | 0 | 1 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  | $(379,278)$ | (227) |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.47\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.40\% | 0 | 0 | 0 | 0 | - | - | - |  | -47.5\% | -43.5\% |
| 45 | 2.31\% | 1.05\% | 0.66\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.87\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | May-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.42\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.23\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 1.99\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.09\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.58\% | 0 | 0 | 1 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.16\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.83\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.63\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.25\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.53\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.02\% | 0 | 0 | 2 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.21\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.82\% | 0 | 0 | 2 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 5.33\% | 0 | 0 | 2 | 0 | - | - | - | Availab | redit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.34\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 3.14\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 4,123,902 | 18,652 |
| 23 | 6.85\% | 4.79\% | 4.19\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.74\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 4,231,745 | 19,116 |
| 25 | 3.76\% | 2.63\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.50\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 6.69\% | 2 | 1 | 3 | 2 | 1.00 | 1.00 | - |  | $(107,843)$ | (464) |
| 41 | 5.70\% | 3.98\% | 3.52\% | 1 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.10\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | nt Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 4.22\% | 1 | 0 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.69\% | 1 | 1 | 3 | 1 | 1.00 | 1.00 | - |  | -2.5\% | -2.4\% |
| 45 | 7.16\% | 5.59\% | 4.77\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.93\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors Relative Range Methodology PRAC - Data Through May, 2015

| Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | $\mathbf{1 0}$ | $\mathbf{1 5}$ | $\mathbf{1 7}$ | $\mathbf{1 8}$ | $\mathbf{2 0}$ | $\mathbf{2 1}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{3 0}$ | MC/Misc. |
| $\mathbf{1}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{2}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{3}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{4}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{5}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{6}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{7}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{8}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{9}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 0}$ | - | - | 1.00 | - | 1.00 | 1.00 | - | - | - | - |
| $\mathbf{1 1}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 2}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{1 3}$ | - | - | 1.00 | - | 1.00 | 1.00 | - | - | - | 1.00 |
| $\mathbf{1 4}$ | - | - | 1.00 | - | 1.00 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{1 4}$ | - | - | 1.00 | - | 1.25 | - | 1.00 | - | 1.00 | 1.00 |
| $\mathbf{1 6}$ | 1.00 | - | 1.00 | - | 1.50 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{1 7}$ | - | - | 1.00 | - | 1.25 | - | - | - | - | - |
| $\mathbf{1 8}$ | 1.00 | - | 1.00 | 1.00 | 1.25 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{1 9}$ | - | - | 1.00 | - | 1.00 | - | 1.00 | - | - | - |
| $\mathbf{2 0}$ | 1.00 | - | 1.00 | - | 1.50 | 1.00 | 1.00 | - | - | - |
| $\mathbf{2 1}$ | 1.00 | 1.00 | 1.00 | - | 1.75 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{2 2}$ | 1.00 | 1.00 | 1.00 | 1.00 | 1.75 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{2 3}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | 1.00 |
| $\mathbf{2 4}$ | - | - | - | - | 1.00 | - | - | - | - | - |
| $\mathbf{2 5}$ | - | - | 1.00 | - | 1.00 | - | - | - | - | - |
| $\mathbf{2 6}$ | - | - | 1.00 | - | 1.50 | - | - | - | - | 1.00 |
| $\mathbf{2 7}$ | - | - | - | - | - | - | - | - | - | - |
| $\mathbf{4 0}$ | 1.00 | - | 1.00 | - | 1.50 | 1.00 | - | - | - | 1.00 |
| $\mathbf{4 1}$ | 1.00 | - | 1.00 | - | 1.00 | 1.00 | - | - | - | 1.00 |
| $\mathbf{4 2}$ | 1.00 | - | 1.00 | - | 1.25 | - | - | - | - | 1.00 |
| $\mathbf{4 3}$ | 1.00 | - | 1.00 | - | 1.25 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{4 4}$ | 1.00 | - | 1.00 | - | 1.50 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{4 5}$ | 1.00 | - | 1.00 | - | 1.25 | 1.00 | 1.00 | - | - | 1.00 |
| $\mathbf{9 9}$ | - | - | - | - | - | - | - | - | - | - |

Highlighted 4/1/2015 Credit Eligible Cells

| Residual Mark Shr Group | Keep |  | Upper |
| :---: | :---: | :---: | :---: |
|  | Out |  |  |
|  | Credits | Lower |  |
| 0 | 0.00 | 0 | 0.025 |
| 1 | 1.00 | 0.025 | 0.04 |
| 2 | 1.00 | 0.04 | 0.055 |
| 3 | 1.00 | 0.055 | 0.085 |
| 4 | 1.25 | 0.085 | 0.115 |
| 5 | 1.50 | 0.115 | 0.145 |
| 6 | 1.75 | 0.145 | 0.175 |
| 7 | 2.00 | 0.175 | 0.205 |
| 8 | 2.25 | 0.205 | 0.235 |
| 9 | 2.50 | 0.235 | 1 |

## To: Tim Galligan

From: Joe Cofield
Date: August 25, 2015

## RE: Historical MAIP Percentages by Cell

Attached is a short review of historical MAIP percentages by cell, for use in considering whether credits reflecting only relative MAIP percentages might be of interest.

- MAIP Percentage Rates by cell were calculated ( $8 / 2011-5 / 2015$ )
- Cells were then ranked by MAIP \% from 1 to 340
- Three "cutoff" thresholds were reviewed based on credit eligible cells
- Credit Eligible Cells (4/2013-3/2014): 159 cells
- Credit Eligible Cells (4/2014-3/2015): 148 cells
- Credit Eligible Cells (4/2015-3/2016): 127 cells

| Cells | MAIP (2011) | MAIP (2012) | MAIP (2013) | MAIP (2014) | MAIP (2015) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 127 | $6.78 \%$ | $6.49 \%$ | $5.01 \%$ | $3.41 \%$ | $2.67 \%$ |
| 148 | $5.76 \%$ | $5.11 \%$ | $4.15 \%$ | $2.98 \%$ | $2.32 \%$ |
| 159 | $5.01 \%$ | $4.73 \%$ | $3.75 \%$ | $2.70 \%$ | $2.11 \%$ |
| Statewide | $2.73 \%$ | $2.71 \%$ | $2.29 \%$ | $1.68 \%$ | $1.38 \%$ |
| $\mathbf{1 2 7}$ vs S/W | $\mathbf{2 . 4 8}$ | $\mathbf{2 . 4 0}$ | $\mathbf{2 . 1 9}$ | $\mathbf{2 . 0 3}$ | $\mathbf{1 . 9 3}$ |
| 148 vs S/W | 2.11 | 1.89 | 1.81 | 1.78 | 1.68 |
| 159 vs S/W | 1.84 | 1.75 | 1.64 | 1.61 | 1.53 |

For example, if there were 127 credit eligible cells ranked from highest MAIP percentage to lowest, then credits would have been available to any cell with a MAIP percentage of at least 1.93 times the statewide average (2015).

In the interest of stability, I then summarized the data into the last three time periods and the last five time periods. (Otherwise, we would potentially be changing credit eligible cells due to the latest year.)

I would like to request that we determine the potential credits using:

- All cells with a three year MAIP percentage at least 2 times the statewide percentage
- A premium credit factor of 1.0 (consistent with other AIPSO states) for all cells

| Rate | 2015 |  | Rate | 3 Year - 4/1/2016 |  |  |  | Rate | 5 Year - 4/1/2016 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class | Exp | Prem | Class | Exp | Prem | 或xp | DPrem | Class | Exp | Prem | 或xp | \Prem |
| 10 | 293,247 | 437,702,290 | 10 | 293,247 | 437,702,290 | 0.0\% | 0.0\% | 10 | 293,247 | 437,702,290 | 0.0\% | 0.0\% |
| 15 | 8,091 | 10,891,112 | 15 | 8,091 | 10,891,112 | 0.0\% | 0.0\% | 15 | 8,091 | 10,891,112 | 0.0\% | 0.0\% |
| 17 | 60,950 | 115,233,840 | 17 | 74,161 | 135,542,517 | 21.7\% | 17.6\% | 17 | 63,756 | 120,962,283 | 4.6\% | 5.0\% |
| 18 | 1,192 | 1,939,846 | 18 | 1,147 | 2,381,508 | -3.8\% | 22.8\% | 18 | 2,505 | 4,715,802 | 110.2\% | 143.1\% |
| 20 | 33,449 | 116,472,201 | 20 | 34,164 | 103,055,339 | 2.1\% | -11.5\% | 20 | 34,164 | 103,055,339 | 2.1\% | -11.5\% |
| 21 | 5,813 | 14,215,271 | 21 | 5,526 | 13,427,636 | -4.9\% | -5.5\% | 21 | 6,853 | 16,440,674 | 17.9\% | 15.7\% |
| 25 | 3,973 | 14,864,458 | 25 | 7,331 | 24,853,310 | 84.5\% | 67.2\% | 25 | 5,853 | 21,012,277 | 47.3\% | 41.4\% |
| 26 | 372 | 1,115,203 | 26 | - | - | -100.0\% | -100.0\% | 26 | - | - | -100.0\% | -100.0\% |
| 30 | 523 | 798,566 | 30 | 765 | 1,145,217 | 46.2\% | 43.4\% | 30 | 523 | 798,566 | 0.0\% | 0.0\% |
| MC/Misc. | 19,116 | 4,231,745 | MC/Misc. | 25,396 | 5,373,368 | 32.8\% | 27.0\% | MC/Misc. | 19,286 | 4,272,837 | 0.9\% | 1.0\% |
| Total | 426,727 | 717,464,534 | Total | 449,827 | 734,372,298 | 5.4\% | 2.4\% | Total | 434,278 | 719,851,180 | 1.8\% | 0.3\% |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs Three Yrs |  | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 10 | 1.06\% | 293 | 0.49 | 1 | 10 | 0.93\% | 288 | 0.52 | 0.00 | 0.00 |  |
| 2 | 10 | 1.08\% | 291 | 0.50 | 2 | 10 | 0.97\% | 282 | 0.54 | 0.00 | 0.00 |  |
| 3 | 10 | 1.30\% | 277 | 0.61 | 3 | 10 | 1.11\% | 270 | 0.62 | 0.00 | 0.00 |  |
| 4 | 10 | 1.15\% | 288 | 0.54 | 4 | 10 | 1.03\% | 275 | 0.58 | 0.00 | 0.00 |  |
| 5 | 10 | 1.71\% | 249 | 0.80 | 5 | 10 | 1.49\% | 239 | 0.84 | 0.00 | 0.00 |  |
| 6 | 10 | 1.74\% | 248 | 0.81 | 6 | 10 | 1.52\% | 236 | 0.86 | 0.00 | 0.00 |  |
| 7 | 10 | 2.24\% | 218 | 1.04 | 7 | 10 | 1.90\% | 211 | 1.07 | 0.00 | 0.00 |  |
| 8 | 10 | 2.01\% | 235 | 0.93 | 8 | 10 | 1.74\% | 222 | 0.98 | 0.00 | 0.00 |  |
| 9 | 10 | 2.81\% | 188 | 1.31 | 9 | 10 | 2.14\% | 192 | 1.20 | 0.00 | 0.00 |  |
| 10 | 10 | 2.64\% | 198 | 1.23 | 10 | 10 | 2.29\% | 185 | 1.29 | 0.00 | 0.00 |  |
| 11 | 10 | 1.93\% | 238 | 0.90 | 11 | 10 | 1.61\% | 230 | 0.91 | 0.00 | 0.00 |  |
| 12 | 10 | 2.37\% | 211 | 1.10 | 12 | 10 | 2.02\% | 204 | 1.13 | 0.00 | 0.00 |  |
| 13 | 10 | 3.96\% | 147 | 1.84 | 13 | 10 | 3.31\% | 145 | 1.86 | 0.00 | 0.00 |  |
| 14 | 10 | 3.70\% | 158 | 1.72 | 14 | 10 | 2.96\% | 156 | 1.66 | 0.00 | 0.00 |  |
| 15 | 10 | 4.16\% | 142 | 1.93 | 15 | 10 | 3.06\% | 153 | 1.72 | 0.00 | 0.00 |  |
| 16 | 10 | 6.41\% | 87 | 2.98 | 16 | 10 | 4.91\% | 86 | 2.76 | 1.00 | 1.00 | 1.00 |
| 17 | 10 | 2.07\% | 227 | 0.97 | 17 | 10 | 1.88\% | 212 | 1.06 | 0.00 | 0.00 |  |
| 18 | 10 | 5.25\% | 119 | 2.44 | 18 | 10 | 4.41\% | 103 | 2.48 | 1.00 | 1.00 | 1.00 |
| 19 | 10 | 3.76\% | 153 | 1.75 | 19 | 10 | 3.19\% | 150 | 1.79 | 0.00 | 0.00 |  |
| 20 | 10 | 6.25\% | 91 | 2.91 | 20 | 10 | 5.23\% | 82 | 2.94 | 1.00 | 1.00 | 1.00 |
| 21 | 10 | 7.72\% | 66 | 3.59 | 21 | 10 | 6.22\% | 67 | 3.49 | 1.00 | 1.00 | 1.00 |
| 22 | 10 | 9.14\% | 43 | 4.25 | 22 | 10 | 7.45\% | 40 | 4.19 | 1.00 | 1.00 | 1.00 |
| 23 | 10 | 3.30\% | 173 | 1.54 | 23 | 10 | 2.65\% | 170 | 1.49 | 0.00 | 0.00 |  |
| 24 | 10 | 2.33\% | 215 | 1.08 | 24 | 10 | 1.77\% | 218 | 0.99 | 0.00 | 0.00 |  |
| 25 | 10 | 2.03\% | 232 | 0.95 | 25 | 10 | 1.63\% | 228 | 0.91 | 0.00 | 0.00 |  |
| 26 | 10 | 3.81\% | 151 | 1.77 | 26 | 10 | 2.72\% | 166 | 1.53 | 0.00 | 0.00 |  |
| 27 | 10 | 0.86\% | 304 | 0.40 | 27 | 10 | 0.78\% | 302 | 0.44 | 0.00 | 0.00 |  |
| 40 | 10 | 7.85\% | 64 | 3.65 | 40 | 10 | 4.86\% | 89 | 2.73 | 1.00 | 1.00 | 1.00 |
| 41 | 10 | 5.15\% | 123 | 2.40 | 41 | 10 | 3.84\% | 116 | 2.16 | 1.00 | 1.00 | 1.00 |
| 42 | 10 | 6.45\% | 85 | 3.00 | 42 | 10 | 4.57\% | 99 | 2.57 | 1.00 | 1.00 | 1.00 |
| 43 | 10 | 5.34\% | 114 | 2.48 | 43 | 10 | 3.61\% | 129 | 2.03 | 1.00 | 1.00 | 1.00 |
| 44 | 10 | 7.03\% | 75 | 3.27 | 44 | 10 | 5.72\% | 73 | 3.21 | 1.00 | 1.00 | 1.00 |
| 45 | 10 | 6.30\% | 90 | 2.93 | 45 | 10 | 4.33\% | 106 | 2.43 | 1.00 | 1.00 | 1.00 |
| 99 | 10 | 0.68\% | 318 | 0.32 | 99 | 10 | 0.63\% | 316 | 0.36 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs |  | MAIP \% |  | Three Yrs |  |  | MAIP \% | Five Yrs Three Yrs |  | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 15 | 0.30\% | 336 | 0.14 | 1 | 15 | 0.30\% | 334 | 0.17 | 0.00 | 0.00 |  |
| 2 | 15 | 0.28\% | 338 | 0.13 | 2 | 15 | 0.29\% | 335 | 0.16 | 0.00 | 0.00 |  |
| 3 | 15 | 0.32\% | 334 | 0.15 | 3 | 15 | 0.31\% | 333 | 0.17 | 0.00 | 0.00 |  |
| 4 | 15 | 0.28\% | 337 | 0.13 | 4 | 15 | 0.28\% | 336 | 0.16 | 0.00 | 0.00 |  |
| 5 | 15 | 0.37\% | 333 | 0.17 | 5 | 15 | 0.37\% | 330 | 0.21 | 0.00 | 0.00 |  |
| 6 | 15 | 0.52\% | 328 | 0.24 | 6 | 15 | 0.52\% | 326 | 0.29 | 0.00 | 0.00 |  |
| 7 | 15 | 0.49\% | 329 | 0.23 | 7 | 15 | 0.48\% | 327 | 0.27 | 0.00 | 0.00 |  |
| 8 | 15 | 0.69\% | 316 | 0.32 | 8 | 15 | 0.69\% | 310 | 0.39 | 0.00 | 0.00 |  |
| 9 | 15 | 0.66\% | 320 | 0.31 | 9 | 15 | 0.64\% | 315 | 0.36 | 0.00 | 0.00 |  |
| 10 | 15 | 0.64\% | 323 | 0.30 | 10 | 15 | 0.62\% | 318 | 0.35 | 0.00 | 0.00 |  |
| 11 | 15 | 0.98\% | 295 | 0.46 | 11 | 15 | 0.92\% | 289 | 0.52 | 0.00 | 0.00 |  |
| 12 | 15 | 0.83\% | 307 | 0.39 | 12 | 15 | 0.83\% | 295 | 0.47 | 0.00 | 0.00 |  |
| 13 | 15 | 1.25\% | 281 | 0.58 | 13 | 15 | 1.19\% | 267 | 0.67 | 0.00 | 0.00 |  |
| 14 | 15 | 1.41\% | 271 | 0.66 | 14 | 15 | 1.38\% | 246 | 0.78 | 0.00 | 0.00 |  |
| 15 | 15 | 1.45\% | 266 | 0.67 | 15 | 15 | 1.37\% | 250 | 0.77 | 0.00 | 0.00 |  |
| 16 | 15 | 2.90\% | 183 | 1.35 | 16 | 15 | 2.46\% | 180 | 1.38 | 0.00 | 0.00 |  |
| 17 | 15 | 0.87\% | 303 | 0.41 | 17 | 15 | 0.81\% | 298 | 0.46 | 0.00 | 0.00 |  |
| 18 | 15 | 2.51\% | 204 | 1.17 | 18 | 15 | 2.17\% | 189 | 1.22 | 0.00 | 0.00 |  |
| 19 | 15 | 2.39\% | 210 | 1.11 | 19 | 15 | 2.05\% | 200 | 1.15 | 0.00 | 0.00 |  |
| 20 | 15 | 2.61\% | 200 | 1.22 | 20 | 15 | 2.50\% | 176 | 1.40 | 0.00 | 0.00 |  |
| 21 | 15 | 5.33\% | 116 | 2.48 | 21 | 15 | 4.65\% | 96 | 2.61 | 1.00 | 1.00 | 1.00 |
| 22 | 15 | 7.31\% | 71 | 3.40 | 22 | 15 | 6.82\% | 49 | 3.83 | 1.00 | 1.00 | 1.00 |
| 23 | 15 | 2.49\% | 205 | 1.16 | 23 | 15 | 2.08\% | 196 | 1.17 | 0.00 | 0.00 |  |
| 24 | 15 | 3.06\% | 177 | 1.42 | 24 | 15 | 2.80\% | 163 | 1.57 | 0.00 | 0.00 |  |
| 25 | 15 | 1.46\% | 265 | 0.68 | 25 | 15 | 1.40\% | 245 | 0.79 | 0.00 | 0.00 |  |
| 26 | 15 | 1.66\% | 253 | 0.77 | 26 | 15 | 1.64\% | 225 | 0.92 | 0.00 | 0.00 |  |
| 27 | 15 | 0.23\% | 339 | 0.11 | 27 | 15 | 0.23\% | 338 | 0.13 | 0.00 | 0.00 |  |
| 40 | 15 | 2.21\% | 220 | 1.03 | 40 | 15 | 1.81\% | 217 | 1.02 | 0.00 | 0.00 |  |
| 41 | 15 | 1.51\% | 260 | 0.70 | 41 | 15 | 1.34\% | 255 | 0.75 | 0.00 | 0.00 |  |
| 42 | 15 | 3.00\% | 179 | 1.40 | 42 | 15 | 2.87\% | 161 | 1.61 | 0.00 | 0.00 |  |
| 43 | 15 | 1.35\% | 276 | 0.63 | 43 | 15 | 1.20\% | 266 | 0.67 | 0.00 | 0.00 |  |
| 44 | 15 | 2.61\% | 201 | 1.21 | 44 | 15 | 2.37\% | 183 | 1.33 | 0.00 | 0.00 |  |
| 45 | 15 | 2.25\% | 217 | 1.05 | 45 | 15 | 1.90\% | 210 | 1.07 | 0.00 | 0.00 |  |
| 99 | 15 | 0.31\% | 335 | 0.14 | 99 | 15 | 0.24\% | 337 | 0.14 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

| Terr | Five Yrs |  | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 17 | 3.02\% | 178 | 1.41 | 1 | 17 | 2.60\% | 173 | 1.46 | 0.00 | 0.00 |  |
| 2 | 17 | 2.70\% | 192 | 1.26 | 2 | 17 | 2.31\% | 184 | 1.30 | 0.00 | 0.00 |  |
| 3 | 17 | 3.39\% | 169 | 1.58 | 3 | 17 | 2.94\% | 157 | 1.65 | 0.00 | 0.00 |  |
| 4 | 17 | 2.98\% | 181 | 1.39 | 4 | 17 | 2.67\% | 169 | 1.50 | 0.00 | 0.00 |  |
| 5 | 17 | 3.94\% | 148 | 1.83 | 5 | 17 | 3.27\% | 148 | 1.84 | 0.00 | 0.00 |  |
| 6 | 17 | 4.17\% | 141 | 1.94 | 6 | 17 | 3.70\% | 124 | 2.08 | 0.00 | 1.00 |  |
| 7 | 17 | 4.68\% | 133 | 2.18 | 7 | 17 | 3.79\% | 121 | 2.13 | 1.00 | 1.00 | 1.00 |
| 8 | 17 | 4.99\% | 125 | 2.32 | 8 | 17 | 3.99\% | 113 | 2.24 | 1.00 | 1.00 | 1.00 |
| 9 | 17 | 5.40\% | 112 | 2.51 | 9 | 17 | 3.79\% | 120 | 2.13 | 1.00 | 1.00 | 1.00 |
| 10 | 17 | 5.37\% | 113 | 2.50 | 10 | 17 | 4.25\% | 109 | 2.39 | 1.00 | 1.00 | 1.00 |
| 11 | 17 | 5.57\% | 109 | 2.59 | 11 | 17 | 3.77\% | 122 | 2.12 | 1.00 | 1.00 |  |
| 12 | 17 | 5.73\% | 103 | 2.66 | 12 | 17 | 4.86\% | 88 | 2.73 | 1.00 | 1.00 | 1.00 |
| 13 | 17 | 7.00\% | 77 | 3.26 | 13 | 17 | 5.62\% | 75 | 3.16 | 1.00 | 1.00 | 1.00 |
| 14 | 17 | 8.01\% | 62 | 3.73 | 14 | 17 | 6.52\% | 57 | 3.66 | 1.00 | 1.00 | 1.00 |
| 15 | 17 | 8.92\% | 47 | 4.15 | 15 | 17 | 6.48\% | 58 | 3.64 | 1.00 | 1.00 | 1.00 |
| 16 | 17 | 12.51\% | 25 | 5.82 | 16 | 17 | 9.92\% | 23 | 5.57 | 1.00 | 1.00 | 1.00 |
| 17 | 17 | 5.61\% | 108 | 2.61 | 17 | 17 | 5.33\% | 79 | 2.99 | 1.00 | 1.00 | 1.00 |
| 18 | 17 | 10.79\% | 29 | 5.02 | 18 | 17 | 8.03\% | 34 | 4.51 | 1.00 | 1.00 | 1.00 |
| 19 | 17 | 10.74\% | 30 | 5.00 | 19 | 17 | 8.74\% | 26 | 4.91 | 1.00 | 1.00 | 1.00 |
| 20 | 17 | 12.54\% | 24 | 5.84 | 20 | 17 | 11.23\% | 20 | 6.31 | 1.00 | 1.00 | 1.00 |
| 21 | 17 | 14.61\% | 17 | 6.80 | 21 | 17 | 12.26\% | 17 | 6.89 | 1.00 | 1.00 | 1.00 |
| 22 | 17 | 12.83\% | 21 | 5.97 | 22 | 17 | 11.45\% | 19 | 6.43 | 1.00 | 1.00 | 1.00 |
| 23 | 17 | 9.14\% | 44 | 4.25 | 23 | 17 | 6.76\% | 52 | 3.80 | 1.00 | 1.00 | 1.00 |
| 24 | 17 | 5.28\% | 118 | 2.46 | 24 | 17 | 3.67\% | 125 | 2.06 | 1.00 | 1.00 | - |
| 25 | 17 | 6.64\% | 81 | 3.09 | 25 | 17 | 4.68\% | 93 | 2.63 | 1.00 | 1.00 | 1.00 |
| 26 | 17 | 8.22\% | 59 | 3.83 | 26 | 17 | 6.24\% | 66 | 3.50 | 1.00 | 1.00 | 1.00 |
| 27 | 17 | 2.28\% | 216 | 1.06 | 27 | 17 | 2.03\% | 203 | 1.14 | 0.00 | 0.00 | - |
| 40 | 17 | 13.64\% | 20 | 6.35 | 40 | 17 | 8.19\% | 32 | 4.60 | 1.00 | 1.00 | 1.00 |
| 41 | 17 | 10.16\% | 36 | 4.73 | 41 | 17 | 7.50\% | 39 | 4.21 | 1.00 | 1.00 | 1.00 |
| 42 | 17 | 9.26\% | 42 | 4.31 | 42 | 17 | 5.95\% | 69 | 3.34 | 1.00 | 1.00 | 1.00 |
| 43 | 17 | 9.05\% | 46 | 4.21 | 43 | 17 | 6.58\% | 56 | 3.70 | 1.00 | 1.00 | 1.00 |
| 44 | 17 | 10.61\% | 32 | 4.94 | 44 | 17 | 7.99\% | 36 | 4.49 | 1.00 | 1.00 | 1.00 |
| 45 | 17 | 12.69\% | 22 | 5.91 | 45 | 17 | 8.43\% | 29 | 4.74 | 1.00 | 1.00 | 1.00 |
| 99 | 17 | 0.62\% | 325 | 0.29 | 99 | 17 | 0.55\% | 324 | 0.31 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs |  | MAIP \% |  | Three Yrs |  |  | MAIP \% | Five Yrs Three Yrs |  | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 18 | 0.94\% | 296 | 0.44 | 1 | 18 | 0.77\% | 303 | 0.44 | 0.00 | 0.00 |  |
| 2 | 18 | 0.70\% | 315 | 0.33 | 2 | 18 | 0.60\% | 321 | 0.34 | 0.00 | 0.00 |  |
| 3 | 18 | 1.14\% | 289 | 0.53 | 3 | 18 | 1.00\% | 277 | 0.56 | 0.00 | 0.00 |  |
| 4 | 18 | 0.89\% | 300 | 0.42 | 4 | 18 | 0.83\% | 296 | 0.47 | 0.00 | 0.00 |  |
| 5 | 18 | 1.48\% | 262 | 0.69 | 5 | 18 | 1.32\% | 257 | 0.74 | 0.00 | 0.00 |  |
| 6 | 18 | 1.28\% | 278 | 0.59 | 6 | 18 | 0.98\% | 280 | 0.55 | 0.00 | 0.00 |  |
| 7 | 18 | 1.82\% | 244 | 0.85 | 7 | 18 | 1.35\% | 252 | 0.76 | 0.00 | 0.00 |  |
| 8 | 18 | 1.40\% | 273 | 0.65 | 8 | 18 | 1.02\% | 276 | 0.57 | 0.00 | 0.00 |  |
| 9 | 18 | 2.06\% | 229 | 0.96 | 9 | 18 | 1.56\% | 232 | 0.87 | 0.00 | 0.00 |  |
| 10 | 18 | 1.64\% | 254 | 0.76 | 10 | 18 | 1.34\% | 254 | 0.75 | 0.00 | 0.00 |  |
| 11 | 18 | 1.15\% | 287 | 0.54 | 11 | 18 | 0.95\% | 284 | 0.54 | 0.00 | 0.00 |  |
| 12 | 18 | 2.18\% | 222 | 1.01 | 12 | 18 | 1.88\% | 213 | 1.06 | 0.00 | 0.00 |  |
| 13 | 18 | 2.98\% | 180 | 1.39 | 13 | 18 | 2.16\% | 191 | 1.21 | 0.00 | 0.00 |  |
| 14 | 18 | 3.18\% | 175 | 1.48 | 14 | 18 | 2.52\% | 175 | 1.42 | 0.00 | 0.00 |  |
| 15 | 18 | 4.10\% | 144 | 1.91 | 15 | 18 | 3.87\% | 115 | 2.17 | 0.00 | 1.00 |  |
| 16 | 18 | 4.97\% | 126 | 2.31 | 16 | 18 | 1.20\% | 265 | 0.67 | 1.00 | 0.00 |  |
| 17 | 18 | 2.35\% | 214 | 1.09 | 17 | 18 | 1.54\% | 234 | 0.86 | 0.00 | 0.00 |  |
| 18 | 18 | 5.99\% | 96 | 2.79 | 18 | 18 | 5.56\% | 76 | 3.12 | 1.00 | 1.00 | 1.00 |
| 19 | 18 | 3.81\% | 152 | 1.77 | 19 | 18 | 2.13\% | 193 | 1.20 | 0.00 | 0.00 |  |
| 20 | 18 | 4.88\% | 130 | 2.27 | 20 | 18 | 3.37\% | 140 | 1.90 | 1.00 | 0.00 |  |
| 21 | 18 | 5.33\% | 115 | 2.48 | 21 | 18 | 3.66\% | 126 | 2.05 | 1.00 | 1.00 |  |
| 22 | 18 | 7.25\% | 73 | 3.38 | 22 | 18 | 5.43\% | 78 | 3.05 | 1.00 | 1.00 | 1.00 |
| 23 | 18 | 2.59\% | 202 | 1.20 | 23 | 18 | 1.75\% | 219 | 0.98 | 0.00 | 0.00 |  |
| 24 | 18 | 2.45\% | 207 | 1.14 | 24 | 18 | 1.91\% | 209 | 1.07 | 0.00 | 0.00 |  |
| 25 | 18 | 1.81\% | 245 | 0.84 | 25 | 18 | 0.90\% | 294 | 0.50 | 0.00 | 0.00 |  |
| 26 | 18 | 4.25\% | 139 | 1.98 | 26 | 18 | 3.09\% | 151 | 1.74 | 0.00 | 0.00 |  |
| 27 | 18 | 0.76\% | 313 | 0.35 | 27 | 18 | 0.69\% | 309 | 0.39 | 0.00 | 0.00 |  |
| 40 | 18 | 6.05\% | 94 | 2.81 | 40 | 18 | 3.27\% | 147 | 1.84 | 1.00 | 0.00 | 1.00 |
| 41 | 18 | 4.91\% | 129 | 2.28 | 41 | 18 | 3.31\% | 146 | 1.86 | 1.00 | 0.00 | 1.00 |
| 42 | 18 | 3.74\% | 154 | 1.74 | 42 | 18 | 1.75\% | 220 | 0.98 | 0.00 | 0.00 |  |
| 43 | 18 | 3.60\% | 160 | 1.67 | 43 | 18 | 2.68\% | 168 | 1.50 | 0.00 | 0.00 |  |
| 44 | 18 | 3.45\% | 165 | 1.60 | 44 | 18 | 2.07\% | 197 | 1.16 | 0.00 | 0.00 |  |
| 45 | 18 | 5.46\% | 111 | 2.54 | 45 | 18 | 3.38\% | 138 | 1.90 | 1.00 | 0.00 |  |
| 99 | 18 | 0.83\% | 308 | 0.39 | 99 | 18 | 1.04\% | 274 | 0.59 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 20 | 5.79\% | 102 | 2.69 | 1 | 20 | 4.46\% | 102 | 2.51 | 1.00 | 1.00 |  |
| 2 | 20 | 5.86\% | 100 | 2.73 | 2 | 20 | 4.68\% | 94 | 2.63 | 1.00 | 1.00 | 1.00 |
| 3 | 20 | 6.51\% | 82 | 3.03 | 3 | 20 | 5.23\% | 81 | 2.94 | 1.00 | 1.00 | 1.00 |
| 4 | 20 | 5.18\% | 122 | 2.41 | 4 | 20 | 3.83\% | 117 | 2.15 | 1.00 | 1.00 | 1.00 |
| 5 | 20 | 8.56\% | 54 | 3.99 | 5 | 20 | 6.39\% | 62 | 3.59 | 1.00 | 1.00 | 1.00 |
| 6 | 20 | 8.05\% | 61 | 3.74 | 6 | 20 | 6.31\% | 64 | 3.54 | 1.00 | 1.00 | 1.00 |
| 7 | 20 | 8.83\% | 50 | 4.11 | 7 | 20 | 6.27\% | 65 | 3.52 | 1.00 | 1.00 | 1.00 |
| 8 | 20 | 10.53\% | 33 | 4.90 | 8 | 20 | 8.36\% | 30 | 4.69 | 1.00 | 1.00 | 1.00 |
| 9 | 20 | 9.75\% | 37 | 4.54 | 9 | 20 | 6.94\% | 47 | 3.90 | 1.00 | 1.00 | 1.00 |
| 10 | 20 | 10.73\% | 31 | 4.99 | 10 | 20 | 8.25\% | 31 | 4.63 | 1.00 | 1.00 | 1.00 |
| 11 | 20 | 9.27\% | 41 | 4.31 | 11 | 20 | 6.76\% | 51 | 3.80 | 1.00 | 1.00 | 1.00 |
| 12 | 20 | 10.83\% | 28 | 5.04 | 12 | 20 | 8.75\% | 25 | 4.91 | 1.00 | 1.00 | 1.00 |
| 13 | 20 | 11.97\% | 26 | 5.57 | 13 | 20 | 9.59\% | 24 | 5.39 | 1.00 | 1.00 | 1.00 |
| 14 | 20 | 14.63\% | 16 | 6.81 | 14 | 20 | 13.02\% | 15 | 7.32 | 1.00 | 1.00 | 1.00 |
| 15 | 20 | 20.42\% | 11 | 9.50 | 15 | 20 | 15.64\% | 12 | 8.78 | 1.00 | 1.00 | 1.25 |
| 16 | 20 | 27.35\% | 3 | 12.73 | 16 | 20 | 23.83\% | 3 | 13.39 | 1.00 | 1.00 | 1.50 |
| 17 | 20 | 13.87\% | 19 | 6.46 | 17 | 20 | 12.53\% | 16 | 7.04 | 1.00 | 1.00 | 1.25 |
| 18 | 20 | 22.91\% | 7 | 10.66 | 18 | 20 | 19.10\% | 5 | 10.73 | 1.00 | 1.00 | 1.25 |
| 19 | 20 | 17.97\% | 12 | 8.36 | 19 | 20 | 15.69\% | 11 | 8.81 | 1.00 | 1.00 | 1.00 |
| 20 | 20 | 24.86\% | 4 | 11.57 | 20 | 20 | 21.46\% | 4 | 12.05 | 1.00 | 1.00 | 1.50 |
| 21 | 20 | 30.00\% | 1 | 13.96 | 21 | 20 | 26.82\% | 1 | 15.07 | 1.00 | 1.00 | 1.75 |
| 22 | 20 | 28.75\% | 2 | 13.38 | 22 | 20 | 24.48\% | 2 | 13.75 | 1.00 | 1.00 | 1.75 |
| 23 | 20 | 16.66\% | 14 | 7.75 | 23 | 20 | 12.17\% | 18 | 6.84 | 1.00 | 1.00 | 1.25 |
| 24 | 20 | 8.63\% | 53 | 4.01 | 24 | 20 | 6.42\% | 61 | 3.61 | 1.00 | 1.00 | 1.00 |
| 25 | 20 | 14.77\% | 15 | 6.88 | 25 | 20 | 13.37\% | 14 | 7.51 | 1.00 | 1.00 | 1.00 |
| 26 | 20 | 21.23\% | 8 | 9.88 | 26 | 20 | 16.80\% | 8 | 9.44 | 1.00 | 1.00 | 1.50 |
| 27 | 20 | 5.61\% | 107 | 2.61 | 27 | 20 | 3.61\% | 128 | 2.03 | 1.00 | 1.00 | 1.00 |
| 40 | 20 | 23.08\% | 6 | 10.74 | 40 | 20 | 15.74\% | 10 | 8.84 | 1.00 | 1.00 | 1.50 |
| 41 | 20 | 14.35\% | 18 | 6.68 | 41 | 20 | 10.59\% | 22 | 5.95 | 1.00 | 1.00 | 1.00 |
| 42 | 20 | 17.42\% | 13 | 8.11 | 42 | 20 | 13.41\% | 13 | 7.53 | 1.00 | 1.00 | 1.25 |
| 43 | 20 | 20.63\% | 9 | 9.60 | 43 | 20 | 15.82\% | 9 | 8.89 | 1.00 | 1.00 | 1.25 |
| 44 | 20 | 20.61\% | 10 | 9.59 | 44 | 20 | 18.37\% | 6 | 10.32 | 1.00 | 1.00 | 1.50 |
| 45 | 20 | 23.63\% | 5 | 11.00 | 45 | 20 | 17.95\% | 7 | 10.08 | 1.00 | 1.00 | 1.25 |
| 99 | 20 | 2.65\% | 197 | 1.23 | 99 | 20 | 1.96\% | 206 | 1.10 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 21 | 2.06\% | 231 | 0.96 | 1 | 21 | 1.26\% | 261 | 0.71 | 0.00 | 0.00 |  |
| 2 | 21 | 1.62\% | 257 | 0.75 | 2 | 21 | 1.44\% | 241 | 0.81 | 0.00 | 0.00 |  |
| 3 | 21 | 2.89\% | 186 | 1.35 | 3 | 21 | 2.05\% | 201 | 1.15 | 0.00 | 0.00 |  |
| 4 | 21 | 2.21\% | 219 | 1.03 | 4 | 21 | 1.75\% | 221 | 0.98 | 0.00 | 0.00 |  |
| 5 | 21 | 3.71\% | 157 | 1.73 | 5 | 21 | 2.82\% | 162 | 1.58 | 0.00 | 0.00 |  |
| 6 | 21 | 3.32\% | 171 | 1.54 | 6 | 21 | 2.94\% | 159 | 1.65 | 0.00 | 0.00 |  |
| 7 | 21 | 3.56\% | 161 | 1.66 | 7 | 21 | 2.59\% | 174 | 1.46 | 0.00 | 0.00 |  |
| 8 | 21 | 3.39\% | 170 | 1.58 | 8 | 21 | 2.73\% | 165 | 1.53 | 0.00 | 0.00 |  |
| 9 | 21 | 4.35\% | 138 | 2.03 | 9 | 21 | 3.36\% | 141 | 1.89 | 1.00 | 0.00 | 1.00 |
| 10 | 21 | 6.73\% | 80 | 3.13 | 10 | 21 | 5.70\% | 74 | 3.20 | 1.00 | 1.00 | 1.00 |
| 11 | 21 | 3.53\% | 163 | 1.64 | 11 | 21 | 2.24\% | 186 | 1.26 | 0.00 | 0.00 |  |
| 12 | 21 | 4.68\% | 134 | 2.18 | 12 | 21 | 3.60\% | 130 | 2.02 | 1.00 | 1.00 |  |
| 13 | 21 | 7.31\% | 72 | 3.40 | 13 | 21 | 5.94\% | 70 | 3.34 | 1.00 | 1.00 | 1.00 |
| 14 | 21 | 5.69\% | 105 | 2.65 | 14 | 21 | 4.50\% | 101 | 2.53 | 1.00 | 1.00 | 1.00 |
| 15 | 21 | 7.44\% | 69 | 3.46 | 15 | 21 | 5.53\% | 77 | 3.10 | 1.00 | 1.00 | 1.00 |
| 16 | 21 | 11.76\% | 27 | 5.47 | 16 | 21 | 10.65\% | 21 | 5.98 | 1.00 | 1.00 | 1.00 |
| 17 | 21 | 2.54\% | 203 | 1.18 | 17 | 21 | 2.17\% | 190 | 1.22 | 0.00 | 0.00 |  |
| 18 | 21 | 9.05\% | 45 | 4.21 | 18 | 21 | 4.31\% | 108 | 2.42 | 1.00 | 1.00 | 1.00 |
| 19 | 21 | 5.71\% | 104 | 2.66 | 19 | 21 | 3.46\% | 137 | 1.94 | 1.00 | 0.00 | 1.00 |
| 20 | 21 | 7.57\% | 68 | 3.52 | 20 | 21 | 7.10\% | 45 | 3.99 | 1.00 | 1.00 | 1.00 |
| 21 | 21 | 8.74\% | 52 | 4.07 | 21 | 21 | 6.12\% | 68 | 3.44 | 1.00 | 1.00 | 1.00 |
| 22 | 21 | 6.50\% | 83 | 3.03 | 22 | 21 | 4.64\% | 97 | 2.61 | 1.00 | 1.00 | 1.00 |
| 23 | 21 | 6.08\% | 92 | 2.83 | 23 | 21 | 3.82\% | 118 | 2.14 | 1.00 | 1.00 |  |
| 24 | 21 | 3.66\% | 159 | 1.70 | 24 | 21 | 3.35\% | 143 | 1.88 | 0.00 | 0.00 | 1.00 |
| 25 | 21 | 1.67\% | 252 | 0.78 | 25 | 21 | 1.47\% | 240 | 0.83 | 0.00 | 0.00 |  |
| 26 | 21 | 5.81\% | 101 | 2.70 | 26 | 21 | 2.71\% | 167 | 1.52 | 1.00 | 0.00 | 1.00 |
| 27 | 21 | 2.09\% | 226 | 0.97 | 27 | 21 | 1.92\% | 208 | 1.08 | 0.00 | 0.00 |  |
| 40 | 21 | 12.66\% | 23 | 5.89 | 40 | 21 | 8.10\% | 33 | 4.55 | 1.00 | 1.00 | 1.00 |
| 41 | 21 | 10.36\% | 34 | 4.82 | 41 | 21 | 7.18\% | 44 | 4.03 | 1.00 | 1.00 | 1.00 |
| 42 | 21 | 6.48\% | 84 | 3.01 | 42 | 21 | 3.48\% | 135 | 1.96 | 1.00 | 0.00 | 1.00 |
| 43 | 21 | 6.31\% | 89 | 2.94 | 43 | 21 | 4.25\% | 110 | 2.39 | 1.00 | 1.00 | 1.00 |
| 44 | 21 | 6.32\% | 88 | 2.94 | 44 | 21 | 4.78\% | 91 | 2.69 | 1.00 | 1.00 | 1.00 |
| 45 | 21 | 8.22\% | 60 | 3.82 | 45 | 21 | 4.94\% | 85 | 2.77 | 1.00 | 1.00 | 1.00 |
| 99 | 21 | 1.37\% | 274 | 0.64 | 99 | 21 | -1.47\% | 340 | (0.83) | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  | Five Yrs |  | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | Y Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 25 | 1.79\% | 247 | 0.83 | 1 | 25 | 1.55\% | 233 | 0.87 | 0.00 | 0.00 |  |
| 2 | 25 | 1.63\% | 256 | 0.76 | 2 | 25 | 1.38\% | 247 | 0.78 | 0.00 | 0.00 |  |
| 3 | 25 | 1.68\% | 251 | 0.78 | 3 | 25 | 1.33\% | 256 | 0.75 | 0.00 | 0.00 |  |
| 4 | 25 | 1.63\% | 255 | 0.76 | 4 | 25 | 1.40\% | 244 | 0.79 | 0.00 | 0.00 |  |
| 5 | 25 | 2.37\% | 212 | 1.10 | 5 | 25 | 2.05\% | 199 | 1.15 | 0.00 | 0.00 |  |
| 6 | 25 | 2.40\% | 209 | 1.12 | 6 | 25 | 2.08\% | 195 | 1.17 | 0.00 | 0.00 |  |
| 7 | 25 | 2.36\% | 213 | 1.10 | 7 | 25 | 2.00\% | 205 | 1.12 | 0.00 | 0.00 |  |
| 8 | 25 | 3.27\% | 174 | 1.52 | 8 | 25 | 2.75\% | 164 | 1.55 | 0.00 | 0.00 |  |
| 9 | 25 | 2.89\% | 185 | 1.35 | 9 | 25 | 2.39\% | 182 | 1.34 | 0.00 | 0.00 |  |
| 10 | 25 | 3.06\% | 176 | 1.43 | 10 | 25 | 2.99\% | 154 | 1.68 | 0.00 | 0.00 |  |
| 11 | 25 | 2.69\% | 195 | 1.25 | 11 | 25 | 1.95\% | 207 | 1.10 | 0.00 | 0.00 |  |
| 12 | 25 | 4.18\% | 140 | 1.95 | 12 | 25 | 3.57\% | 132 | 2.00 | 0.00 | 1.00 |  |
| 13 | 25 | 4.13\% | 143 | 1.92 | 13 | 25 | 3.48\% | 136 | 1.95 | 0.00 | 0.00 |  |
| 14 | 25 | 5.99\% | 97 | 2.79 | 14 | 25 | 4.91\% | 87 | 2.76 | 1.00 | 1.00 | 1.00 |
| 15 | 25 | 8.44\% | 56 | 3.93 | 15 | 25 | 7.03\% | 46 | 3.95 | 1.00 | 1.00 | 1.00 |
| 16 | 25 | 10.17\% | 35 | 4.73 | 16 | 25 | 7.93\% | 37 | 4.46 | 1.00 | 1.00 | 1.00 |
| 17 | 25 | 4.02\% | 146 | 1.87 | 17 | 25 | 2.64\% | 171 | 1.48 | 0.00 | 0.00 |  |
| 18 | 25 | 9.27\% | 40 | 4.31 | 18 | 25 | 7.23\% | 43 | 4.06 | 1.00 | 1.00 | 1.00 |
| 19 | 25 | 8.00\% | 63 | 3.72 | 19 | 25 | 8.03\% | 35 | 4.51 | 1.00 | 1.00 |  |
| 20 | 25 | 8.92\% | 48 | 4.15 | 20 | 25 | 6.62\% | 55 | 3.72 | 1.00 | 1.00 | 1.00 |
| 21 | 25 | 8.80\% | 51 | 4.09 | 21 | 25 | 6.91\% | 48 | 3.88 | 1.00 | 1.00 | 1.00 |
| 22 | 25 | 9.59\% | 38 | 4.46 | 22 | 25 | 7.74\% | 38 | 4.35 | 1.00 | 1.00 | 1.00 |
| 23 | 25 | 6.05\% | 93 | 2.81 | 23 | 25 | 3.64\% | 127 | 2.04 | 1.00 | 1.00 | 1.00 |
| 24 | 25 | 4.52\% | 135 | 2.10 | 24 | 25 | 2.48\% | 177 | 1.40 | 1.00 | 0.00 | 1.00 |
| 25 | 25 | 4.36\% | 137 | 2.03 | 25 | 25 | 3.57\% | 133 | 2.00 | 1.00 | 1.00 | 1.00 |
| 26 | 25 | 5.95\% | 98 | 2.77 | 26 | 25 | 4.22\% | 111 | 2.37 | 1.00 | 1.00 | 1.00 |
| 27 | 25 | 1.21\% | 282 | 0.56 | 27 | 25 | 0.97\% | 281 | 0.55 | 0.00 | 0.00 |  |
| 40 | 25 | 4.93\% | 128 | 2.30 | 40 | 25 | 3.38\% | 139 | 1.90 | 1.00 | 0.00 |  |
| 41 | 25 | 5.88\% | 99 | 2.74 | 41 | 25 | 4.64\% | 98 | 2.61 | 1.00 | 1.00 |  |
| 42 | 25 | 4.94\% | 127 | 2.30 | 42 | 25 | 3.81\% | 119 | 2.14 | 1.00 | 1.00 |  |
| 43 | 25 | 6.41\% | 86 | 2.98 | 43 | 25 | 5.82\% | 72 | 3.27 | 1.00 | 1.00 | 1.00 |
| 44 | 25 | 7.03\% | 74 | 3.27 | 44 | 25 | 6.47\% | 59 | 3.63 | 1.00 | 1.00 | 1.00 |
| 45 | 25 | 7.71\% | 67 | 3.59 | 45 | 25 | 6.33\% | 63 | 3.56 | 1.00 | 1.00 | 1.00 |
| 99 | 25 | 0.43\% | 331 | 0.20 | 99 | 25 | 0.33\% | 332 | 0.19 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 26 | 0.62\% | 324 | 0.29 | 1 | 26 | 0.61\% | 319 | 0.34 | 0.00 | 0.00 |  |
| 2 | 26 | 0.46\% | 330 | 0.22 | 2 | 26 | 0.43\% | 329 | 0.24 | 0.00 | 0.00 |  |
| 3 | 26 | 0.76\% | 312 | 0.36 | 3 | 26 | 0.63\% | 317 | 0.36 | 0.00 | 0.00 |  |
| 4 | 26 | 0.59\% | 326 | 0.27 | 4 | 26 | 0.57\% | 322 | 0.32 | 0.00 | 0.00 |  |
| 5 | 26 | 0.92\% | 299 | 0.43 | 5 | 26 | 0.81\% | 301 | 0.45 | 0.00 | 0.00 |  |
| 6 | 26 | 0.77\% | 311 | 0.36 | 6 | 26 | 0.73\% | 306 | 0.41 | 0.00 | 0.00 |  |
| 7 | 26 | 0.84\% | 306 | 0.39 | 7 | 26 | 0.69\% | 311 | 0.39 | 0.00 | 0.00 |  |
| 8 | 26 | 0.88\% | 301 | 0.41 | 8 | 26 | 0.81\% | 299 | 0.46 | 0.00 | 0.00 |  |
| 9 | 26 | 0.88\% | 302 | 0.41 | 9 | 26 | 0.68\% | 312 | 0.38 | 0.00 | 0.00 |  |
| 10 | 26 | 1.37\% | 275 | 0.64 | 10 | 26 | 1.25\% | 262 | 0.70 | 0.00 | 0.00 |  |
| 11 | 26 | 0.80\% | 309 | 0.37 | 11 | 26 | 0.70\% | 308 | 0.39 | 0.00 | 0.00 |  |
| 12 | 26 | 1.57\% | 259 | 0.73 | 12 | 26 | 1.29\% | 259 | 0.73 | 0.00 | 0.00 |  |
| 13 | 26 | 1.93\% | 237 | 0.90 | 13 | 26 | 1.63\% | 227 | 0.91 | 0.00 | 0.00 |  |
| 14 | 26 | 1.92\% | 239 | 0.89 | 14 | 26 | 1.00\% | 278 | 0.56 | 0.00 | 0.00 |  |
| 15 | 26 | 2.64\% | 199 | 1.23 | 15 | 26 | 2.12\% | 194 | 1.19 | 0.00 | 0.00 |  |
| 16 | 26 | 2.70\% | 194 | 1.26 | 16 | 26 | 0.96\% | 283 | 0.54 | 0.00 | 0.00 |  |
| 17 | 26 | 1.21\% | 283 | 0.56 | 17 | 26 | 0.82\% | 297 | 0.46 | 0.00 | 0.00 |  |
| 18 | 26 | 2.87\% | 187 | 1.33 | 18 | 26 | 2.98\% | 155 | 1.67 | 0.00 | 0.00 |  |
| 19 | 26 | 1.19\% | 284 | 0.55 | 19 | 26 | 0.74\% | 305 | 0.42 | 0.00 | 0.00 |  |
| 20 | 26 | 2.11\% | 225 | 0.98 | 20 | 26 | 0.54\% | 325 | 0.30 | 0.00 | 0.00 |  |
| 21 | 26 | 2.41\% | 208 | 1.12 | 21 | 26 | 1.23\% | 263 | 0.69 | 0.00 | 0.00 | 1.00 |
| 22 | 26 | 3.40\% | 167 | 1.58 | 22 | 26 | 2.04\% | 202 | 1.14 | 0.00 | 0.00 |  |
| 23 | 26 | 1.60\% | 258 | 0.74 | 23 | 26 | 0.99\% | 279 | 0.55 | 0.00 | 0.00 |  |
| 24 | 26 | 2.01\% | 234 | 0.94 | 24 | 26 | 0.94\% | 287 | 0.53 | 0.00 | 0.00 |  |
| 25 | 26 | 0.80\% | 310 | 0.37 | 25 | 26 | 0.48\% | 328 | 0.27 | 0.00 | 0.00 |  |
| 26 | 26 | 1.42\% | 270 | 0.66 | 26 | 26 | 1.61\% | 229 | 0.91 | 0.00 | 0.00 |  |
| 27 | 26 | 0.42\% | 332 | 0.20 | 27 | 26 | 0.35\% | 331 | 0.20 | 0.00 | 0.00 |  |
| 40 | 26 | 1.44\% | 269 | 0.67 | 40 | 26 | 0.75\% | 304 | 0.42 | 0.00 | 0.00 |  |
| 41 | 26 | 2.68\% | 196 | 1.25 | 41 | 26 | 2.21\% | 188 | 1.24 | 0.00 | 0.00 |  |
| 42 | 26 | 1.97\% | 236 | 0.92 | 42 | 26 | 1.10\% | 271 | 0.62 | 0.00 | 0.00 |  |
| 43 | 26 | 2.03\% | 233 | 0.94 | 43 | 26 | 1.51\% | 238 | 0.85 | 0.00 | 0.00 |  |
| 44 | 26 | 2.47\% | 206 | 1.15 | 44 | 26 | 2.24\% | 187 | 1.26 | 0.00 | 0.00 |  |
| 45 | 26 | 3.87\% | 149 | 1.80 | 45 | 26 | 3.08\% | 152 | 1.73 | 0.00 | 0.00 | 1.00 |
| 99 | 26 | 0.00\% | 340 | - | 99 | 26 | 0.00\% | 339 | - | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | 30 | 0.64\% | 322 | 0.30 | 1 | 30 | 0.65\% | 314 | 0.36 | 0.00 | 0.00 |  |
| 2 | 30 | 0.84\% | 305 | 0.39 | 2 | 30 | 0.72\% | 307 | 0.40 | 0.00 | 0.00 |  |
| 3 | 30 | 0.73\% | 314 | 0.34 | 3 | 30 | 0.65\% | 313 | 0.37 | 0.00 | 0.00 |  |
| 4 | 30 | 0.68\% | 317 | 0.32 | 4 | 30 | 0.61\% | 320 | 0.34 | 0.00 | 0.00 |  |
| 5 | 30 | 1.05\% | 294 | 0.49 | 5 | 30 | 0.91\% | 293 | 0.51 | 0.00 | 0.00 |  |
| 6 | 30 | 0.92\% | 298 | 0.43 | 6 | 30 | 0.92\% | 292 | 0.52 | 0.00 | 0.00 |  |
| 7 | 30 | 1.28\% | 279 | 0.59 | 7 | 30 | 1.18\% | 268 | 0.66 | 0.00 | 0.00 |  |
| 8 | 30 | 1.08\% | 292 | 0.50 | 8 | 30 | 1.08\% | 273 | 0.60 | 0.00 | 0.00 |  |
| 9 | 30 | 1.25\% | 280 | 0.58 | 9 | 30 | 0.95\% | 285 | 0.53 | 0.00 | 0.00 |  |
| 10 | 30 | 1.89\% | 241 | 0.88 | 10 | 30 | 1.85\% | 215 | 1.04 | 0.00 | 0.00 |  |
| 11 | 30 | 1.45\% | 268 | 0.67 | 11 | 30 | 1.37\% | 249 | 0.77 | 0.00 | 0.00 |  |
| 12 | 30 | 1.83\% | 242 | 0.85 | 12 | 30 | 1.52\% | 237 | 0.85 | 0.00 | 0.00 |  |
| 13 | 30 | 1.91\% | 240 | 0.89 | 13 | 30 | 1.59\% | 231 | 0.90 | 0.00 | 0.00 |  |
| 14 | 30 | 2.78\% | 190 | 1.29 | 14 | 30 | 3.36\% | 142 | 1.89 | 0.00 | 0.00 |  |
| 15 | 30 | 5.51\% | 110 | 2.57 | 15 | 30 | 5.12\% | 83 | 2.88 | 1.00 | 1.00 | 1.00 |
| 16 | 30 | 5.64\% | 106 | 2.63 | 16 | 30 | 4.82\% | 90 | 2.71 | 1.00 | 1.00 | 1.00 |
| 17 | 30 | 1.40\% | 272 | 0.65 | 17 | 30 | 1.54\% | 235 | 0.86 | 0.00 | 0.00 |  |
| 18 | 30 | 2.94\% | 182 | 1.37 | 18 | 30 | 1.34\% | 253 | 0.75 | 0.00 | 0.00 |  |
| 19 | 30 | 1.81\% | 246 | 0.84 | 19 | 30 | 1.84\% | 216 | 1.03 | 0.00 | 0.00 |  |
| 20 | 30 | 1.12\% | 290 | 0.52 | 20 | 30 | 0.81\% | 300 | 0.45 | 0.00 | 0.00 |  |
| 21 | 30 | 3.74\% | 155 | 1.74 | 21 | 30 | 2.61\% | 172 | 1.47 | 0.00 | 0.00 |  |
| 22 | 30 | 7.02\% | 76 | 3.27 | 22 | 30 | 3.88\% | 114 | 2.18 | 1.00 | 1.00 | 1.00 |
| 23 | 30 | 1.48\% | 263 | 0.69 | 23 | 30 | 1.22\% | 264 | 0.69 | 0.00 | 0.00 |  |
| 24 | 30 | 2.06\% | 230 | 0.96 | 24 | 30 | 1.43\% | 243 | 0.81 | 0.00 | 0.00 |  |
| 25 | 30 | 1.18\% | 286 | 0.55 | 25 | 30 | 0.92\% | 290 | 0.52 | 0.00 | 0.00 |  |
| 26 | 30 | 3.47\% | 164 | 1.61 | 26 | 30 | 4.32\% | 107 | 2.43 | 0.00 | 1.00 |  |
| 27 | 30 | 0.55\% | 327 | 0.26 | 27 | 30 | 0.55\% | 323 | 0.31 | 0.00 | 0.00 |  |
| 40 | 30 | 0.64\% | 321 | 0.30 | 40 | 30 | 0.94\% | 286 | 0.53 | 0.00 | 0.00 |  |
| 41 | 30 | 1.70\% | 250 | 0.79 | 41 | 30 | 1.36\% | 251 | 0.76 | 0.00 | 0.00 |  |
| 42 | 30 | 2.13\% | 224 | 0.99 | 42 | 30 | 1.64\% | 224 | 0.92 | 0.00 | 0.00 |  |
| 43 | 30 | 2.19\% | 221 | 1.02 | 43 | 30 | 1.74\% | 223 | 0.98 | 0.00 | 0.00 |  |
| 44 | 30 | 3.43\% | 166 | 1.60 | 44 | 30 | 3.25\% | 149 | 1.82 | 0.00 | 0.00 |  |
| 45 | 30 | 2.70\% | 193 | 1.26 | 45 | 30 | 1.32\% | 258 | 0.74 | 0.00 | 0.00 |  |
| 99 | 30 | 0.67\% | 319 | 0.31 | 99 | 30 | 1.08\% | 272 | 0.61 | 0.00 | 0.00 |  |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

|  |  | Five Yrs | MAIP \% |  |  | Three Yrs |  |  | MAIP \% | Five Yrs | ee Yrs | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Class | MAIP \% | Rank | vs S/W | Terr | Class | MAIP \% | Rank | vs S/W | 2*S/W | 2*S/W | Credits |
| 1 | M/M | 1.45\% | 267 | 0.67 | 1 | M/M | 1.27\% | 260 | 0.71 | 0.00 | 0.00 |  |
| 2 | M/M | 1.47\% | 264 | 0.68 | 2 | M/M | 1.37\% | 248 | 0.77 | 0.00 | 0.00 |  |
| 3 | M/M | 1.82\% | 243 | 0.85 | 3 | M/M | 1.63\% | 226 | 0.92 | 0.00 | 0.00 |  |
| 4 | M/M | 1.50\% | 261 | 0.70 | 4 | M/M | 1.44\% | 242 | 0.81 | 0.00 | 0.00 |  |
| 5 | M/M | 2.07\% | 228 | 0.96 | 5 | M/M | 1.87\% | 214 | 1.05 | 0.00 | 0.00 |  |
| 6 | M/M | 2.16\% | 223 | 1.01 | 6 | M/M | 2.06\% | 198 | 1.16 | 0.00 | 0.00 |  |
| 7 | M/M | 2.74\% | 191 | 1.27 | 7 | M/M | 2.45\% | 181 | 1.37 | 0.00 | 0.00 |  |
| 8 | M/M | 2.80\% | 189 | 1.30 | 8 | M/M | 2.48\% | 178 | 1.39 | 0.00 | 0.00 |  |
| 9 | M/M | 2.90\% | 184 | 1.35 | 9 | M/M | 2.48\% | 179 | 1.39 | 0.00 | 0.00 |  |
| 10 | M/M | 3.71\% | 156 | 1.73 | 10 | M/M | 3.32\% | 144 | 1.86 | 0.00 | 0.00 |  |
| 11 | M/M | 3.30\% | 172 | 1.54 | 11 | M/M | 2.94\% | 158 | 1.65 | 0.00 | 0.00 |  |
| 12 | M/M | 3.82\% | 150 | 1.78 | 12 | M/M | 3.71\% | 123 | 2.09 | 0.00 | 1.00 |  |
| 13 | M/M | 4.70\% | 132 | 2.19 | 13 | M/M | 4.40\% | 104 | 2.47 | 1.00 | 1.00 | 1.00 |
| 14 | M/M | 5.28\% | 117 | 2.46 | 14 | M/M | 4.67\% | 95 | 2.62 | 1.00 | 1.00 | 1.00 |
| 15 | M/M | 7.84\% | 65 | 3.65 | 15 | M/M | 6.63\% | 54 | 3.72 | 1.00 | 1.00 | 1.00 |
| 16 | M/M | 8.49\% | 55 | 3.95 | 16 | M/M | 8.70\% | 27 | 4.89 | 1.00 | 1.00 | 1.00 |
| 17 | M/M | 3.40\% | 168 | 1.58 | 17 | M/M | 3.60\% | 131 | 2.02 | 0.00 | 1.00 |  |
| 18 | M/M | 4.85\% | 131 | 2.26 | 18 | M/M | 4.96\% | 84 | 2.79 | 1.00 | 1.00 | 1.00 |
| 19 | M/M | 4.47\% | 136 | 2.08 | 19 | M/M | 4.08\% | 112 | 2.29 | 1.00 | 1.00 |  |
| 20 | M/M | 5.02\% | 124 | 2.34 | 20 | M/M | 4.51\% | 100 | 2.53 | 1.00 | 1.00 |  |
| 21 | M/M | 9.47\% | 39 | 4.41 | 21 | M/M | 8.47\% | 28 | 4.76 | 1.00 | 1.00 | 1.00 |
| 22 | M/M | 8.24\% | 58 | 3.83 | 22 | M/M | 6.76\% | 50 | 3.80 | 1.00 | 1.00 | 1.00 |
| 23 | M/M | 6.04\% | 95 | 2.81 | 23 | M/M | 5.28\% | 80 | 2.96 | 1.00 | 1.00 | 1.00 |
| 24 | M/M | 4.03\% | 145 | 1.87 | 24 | M/M | 3.56\% | 134 | 2.00 | 0.00 | 1.00 | 1.00 |
| 25 | M/M | 3.54\% | 162 | 1.65 | 25 | M/M | 2.90\% | 160 | 1.63 | 0.00 | 0.00 |  |
| 26 | M/M | 6.91\% | 78 | 3.21 | 26 | M/M | 6.75\% | 53 | 3.79 | 1.00 | 1.00 | 1.00 |
| 27 | M/M | 1.19\% | 285 | 0.55 | 27 | M/M | 1.14\% | 269 | 0.64 | 0.00 | 0.00 |  |
| 40 | M/M | 8.86\% | 49 | 4.12 | 40 | M/M | 7.33\% | 41 | 4.12 | 1.00 | 1.00 | 1.00 |
| 41 | M/M | 5.19\% | 121 | 2.42 | 41 | M/M | 4.38\% | 105 | 2.46 | 1.00 | 1.00 | 1.00 |
| 42 | M/M | 6.86\% | 79 | 3.19 | 42 | M/M | 6.47\% | 60 | 3.63 | 1.00 | 1.00 | 1.00 |
| 43 | M/M | 5.21\% | 120 | 2.43 | 43 | M/M | 4.75\% | 92 | 2.67 | 1.00 | 1.00 | 1.00 |
| 44 | M/M | 8.31\% | 57 | 3.87 | 44 | M/M | 7.27\% | 42 | 4.08 | 1.00 | 1.00 | 1.00 |
| 45 | M/M | 7.43\% | 70 | 3.46 | 45 | M/M | 5.83\% | 71 | 3.27 | 1.00 | 1.00 | 1.00 |
| 99 | M/M | 0.94\% | 297 | 0.44 | 99 | M/M | 0.92\% | 291 | 0.52 | 0.00 | 0.00 |  |
| All | All | 2.15\% |  |  | All | All | 1.78\% |  |  |  |  |  |


| Rate Class | 4/1/2015 Credit Factors |  |  | 4/1/16 Indicated - Residual Market Share Group Methodology |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {a }}$ | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 46,736 | -84.1\% | 88,648,806 | -79.7\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 1,897 | -76.6\% | 2,628,381 | -75.9\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 25,988 | -57.4\% | 56,889,710 | -50.6\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 180 | -84.9\% | 300,668 | -84.5\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 27,067 | -19.1\% | 94,391,768 | -19.0\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 750 | -87.1\% | 1,631,037 | -88.5\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 2,961 | -25.5\% | 11,730,229 | -21.1\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 296 | -43.5\% | 419,288 | -47.5\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 6,940 | -63.7\% | 1,739,815 | -58.9\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 112,815 | -73.6\% | 258,379,702 | -64.0\% |
| \% of Total | Mkt. Exp. | 9.5\% |  | 2.5\% |  |  |  |
|  | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 678,766,758 \\ 94.6 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 237,609,432 } \\ 92.0 \% \\ \hline \end{gathered}$ |  |
|  |  |  |  |  | Residual Mark Share Group | Keep Out Credits |  |
|  |  |  |  |  | 0 | 0.00 |  |
|  |  |  |  |  | 1 | 1.00 |  |
|  |  |  |  |  | 2 | 1.00 |  |
|  |  |  |  |  | 3 | 1.00 |  |
|  |  |  |  |  | 4 | 1.25 |  |
|  |  |  |  |  | 5 | 1.50 |  |
|  |  |  |  |  | 6 | 1.75 |  |
|  |  |  |  |  | 7 | 2.00 |  |
|  |  |  |  |  | 8 | 2.25 |  |
|  |  |  |  |  | 9 | 2.50 |  |


| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {a }}$ | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 46,736 | -84.1\% | 88,648,806 | -79.7\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 1,897 | -76.6\% | 2,628,381 | -75.9\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 14,169 | -76.8\% | 34,706,614 | -69.9\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 180 | -84.9\% | 300,668 | -84.5\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 27,160 | -18.8\% | 91,862,532 | -21.1\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 205 | -96.5\% | 462,520 | -96.7\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 1,578 | -60.3\% | 6,738,340 | -54.7\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 0 | -100.0\% | 0 | -100.0\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 5,015 | -73.8\% | 1,235,306 | -70.8\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 96,939 | -77.3\% | 226,583,167 | -68.4\% |
| \% of Total Mkt. Exp. |  | 9.5\% |  | 2.2\% |  |  |  |
| Estimated Credits Used Credit Utilization |  |  | $\begin{gathered} 678,766,758 \\ 94.6 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 207,564,641 \\ 91.6 \% \end{gathered}$ |  |

## 4/1/2015 Credit Factors

Estimated Credits Used Credit Utilization

4/1/16 Indicated - Residual Market Share Group Methodology

| Residual <br> Mark Share <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 | 0.00 |
| 1 | 1.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.25 |
| 5 | 1.50 |
| 6 | 1.75 |
| 7 | 2.00 |
| 8 | 2.25 |
| 9 | 2.50 |

4/1/2015 Credit Factors

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {U }}$ | Potential Credit Premium | \% ${ }^{\text {U }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 177,060 | -39.6\% | 268,921,714 | -38.6\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 8,091 | 0.0\% | 10,891,112 | 0.0\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 74,161 | 21.7\% | 135,542,517 | 17.6\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 837 | -29.8\% | 1,483,660 | -23.5\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 32,840 | -1.8\% | 107,306,845 | -7.9\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 5,223 | -10.2\% | 12,527,213 | -11.9\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 5,294 | 33.2\% | 19,125,780 | 28.7\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 683 | 30.6\% | 998,014 | 25.0\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 25,097 | 31.3\% | 5,302,995 | 25.3\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 329,286 | -22.8\% | 562,099,849 | -21.7\% |


1.38\% Current Residual Market Rate Using Data Through May, 2015
2.0\% Target Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
5.0\% Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.0)=.69$
2. Round the result from 1. above to the nearest 10 th $=.7$
3. Multiply the result from 2. above by the original average residual market share threshold (. $7 \times .05$ ) $=3.5$
4. Use the same increment for bands as original methodology: .03 for first two bands, .06 for all remaining bands

4/1/2015 Credit Factors

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% 人 | Potential Credit Premium | \% $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 109,189 | -62.8\% | 168,760,045 | -61.4\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 8,091 | 0.0\% | 10,891,112 | 0.0\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 34,115 | -44.0\% | 73,479,328 | -36.2\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 180 | -84.9\% | 300,668 | -84.5\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 31,242 | -6.6\% | 102,576,742 | -11.9\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 3,089 | -46.9\% | 7,339,612 | -48.4\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 3,489 | -12.2\% | 12,705,549 | -14.5\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 242 | -53.8\% | 346,651 | -56.6\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 19,369 | 1.3\% | 4,290,998 | 1.4\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 209,005 | -51.0\% | 380,690,705 | -46.9\% |

$\%$ of Total Mkt. Exp. $9.5 \% \quad 4.7 \%$

|  | Estimated Credit Utiliz | sed | $\begin{gathered} 678,766,758 \\ 94.6 \% \\ \hline \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 354,002,601 \\ 93.0 \% \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original | Ranges: |  |  | Relative Ranges: |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0 | 0.05 | 0 | 0 | 0 | 0.035 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.035 | 0.065 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.065 | 0.095 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.095 | 0.155 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.335 | 0.395 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.47 | 1 | 2.5 | 9 | 0.455 | 1 | 2.5 |

1.38\% Current Residual Market Rate Using Data Through May, 2015
2.0\% Target Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
5.0\% Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.0)=.69$
2. Round the result from 1. above to the nearest 10 th $=.7$
3. Multiply the result from 2. above by the original average residual market share threshold (. $7 \times .05$ ) $=3.5$
4. Use the same increment for bands as original methodology: .03 for first two bands, .06 for all remaining bands

4/1/2015 Credit Factors

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\triangle$ | Potential Credit Premium | \% , |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,070,466 | 293,247 | 437,702,290 | 293,247 | 0.0\% | 437,702,290 | 0.0\% |
| 15 | 782,127 | 8,091 | 10,891,112 | 8,091 | 0.0\% | 10,891,112 | 0.0\% |
| 17 | 144,383 | 60,950 | 115,233,840 | 60,950 | 0.0\% | 115,233,840 | 0.0\% |
| 18 | 55,019 | 1,192 | 1,939,846 | 337 | -71.7\% | 658,180 | -66.1\% |
| 20 | 34,282 | 33,449 | 116,472,201 | 31,851 | -4.8\% | 113,008,894 | -3.0\% |
| 21 | 15,499 | 5,813 | 14,215,271 | 4,196 | -27.8\% | 10,479,364 | -26.3\% |
| 25 | 74,621 | 3,973 | 14,864,458 | 3,484 | -12.3\% | 13,212,120 | -11.1\% |
| 26 | 65,541 | 372 | 1,115,203 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,038 | 523 | 798,566 | 296 | -43.5\% | 419,288 | -47.5\% |
| M/M | 166,422 | 19,116 | 4,231,745 | 18,652 | -2.4\% | 4,123,902 | -2.5\% |
| Total | 4,470,398 | 426,727 | 717,464,534 | 421,103 | -1.3\% | 705,728,990 | -1.6\% |


1.38\% Current Residual Market Rate Using Data Through May, 2015
2.8\% Base Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
$5.0 \% \quad$ Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.75)=0.502$
2. Round the result from 1. above to the nearest 10 th $=0.5$
3. Multiply the result from 2. above by the original average residual market share threshold $(0.5 \times .05)=0.025$
4. Adjust the remaining bands in the same manner, rounding to 3 decimal places

4/1/2015 Credit Factors

| Rate <br> Class | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium | Credit Eligible <br> Exposures | $\underline{0 \Delta}$ | Potential <br> Credit Premium | $\underline{\% \Delta}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


|  | Estimated Credit Utiliz | sed | $\begin{gathered} \text { 678,766,758 } \\ 94.6 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 933,017,964 \\ 94.9 \% \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original | Ranges: |  |  | Relative Ranges: |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0.00 | 0.05 | 0 | 0 | 0.000 | 0.025 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.025 | 0.040 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.040 | 0.055 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.055 | 0.085 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.085 | 0.115 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.115 | 0.145 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.145 | 0.175 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.175 | 0.205 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.205 | 0.235 | 2.25 |
| 9 | 0.47 | 1.00 | 2.5 | 9 | 0.235 | 1.000 | 2.5 |

1.38\% Current Residual Market Rate Using Data Through May, 2015
2.8\% Base Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
5.0\% Residual Market rate Threshold Point, Credits were given for 5.0\% and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.38 / 2.75)=0.502$
2. Round the result from 1. above to the nearest 10 th $=0.5$
3. Multiply the result from 2. above by the original average residual market share threshold $(0.5 \times .05)=0.025$
4. Adjust the remaining bands in the same manner, rounding to 3 decimal places

| Company | Report Date | Voluntary <br> Exposures | Stat Reported <br> Calculated <br> Maip Premium | Stat Reported <br> Calculated <br> Credit Premium | Newly <br> Assigned <br> Premium | Total <br> MAIP Premium <br> in Quota Share |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| IND | $1 / 31 / 2013$ | $4,062,252$ | $176,964,591$ | $676,955,398$ | $17,060,908$ | $194,025,499$ |
| IND | $2 / 28 / 2013$ | $4,074,996$ | $174,468,803$ | $693,467,802$ | $20,067,831$ | $194,536,634$ |
| IND | $3 / 31 / 2013$ | $4,086,637$ | $171,298,370$ | $708,865,735$ | $21,702,974$ | $193,001,344$ |
| IND | $4 / 30 / 2013$ | $4,086,264$ | $168,154,975$ | $726,359,786$ | $2,143,203$ | $188,298,178$ |
| IND | $5 / 31 / 2013$ | $4,109,025$ | $166,664,715$ | $751,025,352$ | $18,226,417$ | $184,891,132$ |
| IND | $6 / 30 / 2013$ | $4,127,598$ | $164,073,597$ | $749,439,293$ | $16,241,137$ | $180,314,734$ |
| IND | $7 / 31 / 2013$ | $4,153,051$ | $162,816,955$ | $753,155,160$ | $15,42,251$ | $178,239,206$ |
| IND | $8 / 31 / 2013$ | $4,162,469$ | $158,855,991$ | $754,291,138$ | $16,201,928$ | $175,057,919$ |
| IND | $9 / 30 / 2013$ | $4,174,168$ | $155,830,396$ | $755,819,929$ | $15,536,565$ | $171,366,961$ |
| IND | $10 / 31 / 2013$ | $4,183,008$ | $151,891,000$ | $757,777,252$ | $14,462,402$ | $166,353,402$ |
| IND | $11 / 30 / 2013$ | $4,187,158$ | $148,169,572$ | $757,595,222$ | $13,257,597$ | $161,427,169$ |
| IND | $12 / 31 / 2013$ | $4,192,726$ | $144,911,576$ | $757,377,217$ | $12,080,967$ | $156,992,543$ |
| IND | $1 / 31 / 2014$ | $4,197,765$ | $141,462,604$ | $758,111,441$ | $12,068,111$ | $153,530,715$ |
| IND | $2 / 28 / 2014$ | $4,199,492$ | $138,704,229$ | $758,788,808$ | $14,550,981$ | $153,255,210$ |
| IND | $3 / 31 / 2014$ | $4,195,366$ | $134,563,462$ | $756,036,633$ | $15,985,109$ | $150,548,571$ |
| IND | $4 / 30 / 2014$ | $4,205,572$ | $131,243,532$ | $761,739,336$ | $14,354,874$ | $145,598,406$ |
| IND | $5 / 31 / 2014$ | $4,216,646$ | $128,311,148$ | $765,401,272$ | $12,499,018$ | $140,810,166$ |
| IND | $6 / 30 / 2014$ | $4,228,279$ | $124,779,900$ | $768,153,619$ | $11,558,720$ | $136,338,620$ |
| IND | $7 / 31 / 2014$ | $4,240,505$ | $121,856,986$ | $769,133,870$ | $11,063,390$ | $132,920,376$ |
| IND | $8 / 31 / 2014$ | $4,248,865$ | $119,027,166$ | $767,314,708$ | $10,833,680$ | $129,860,846$ |
| IND | $9 / 30 / 2014$ | $4,259,076$ | $115,935,538$ | $766,037,495$ | $10,615,590$ | $126,551,128$ |
| IND | $10 / 31 / 2014$ | $4,266,821$ | $112,221,413$ | $763,892,759$ | $10,722,560$ | $122,943,973$ |
| IND | $11 / 30 / 2014$ | $4,272,529$ | $109,519,137$ | $762,524,937$ | $9,850,071$ | $119,369,208$ |
| IND | $12 / 31 / 2014$ | $4,278,808$ | $107,568,868$ | $763,281,897$ | $9,158,252$ | $116,727,120$ |
| IND | $1 / 31 / 2015$ | $4,280,167$ | $104,724,914$ | $760,595,685$ | $9,073,319$ | $113,798,233$ |
| IND | $2 / 281 / 2015$ | $4,283,883$ | $103,117,934$ | $760,743,494$ | $9,725,687$ | $112,843,621$ |
| IND | $3 / 312015$ | $4,280,056$ | $99,845,812$ | $757,958,343$ | $11,732,324$ | $112,570,440$ |
| IND | $4 / 302015$ | $4,282,802$ | $98,114,698$ | $756,233,254$ | $12,817,665$ | $110,932,363$ |
| IND | $5 / 31 / 2015$ | $4,285,951$ | $97,063,437$ | $758,127,759$ | $11,698,101$ | $108,761,538$ |
| IND | $6 / 30 / 2015$ | $4,296,294$ | $96,292,091$ | $754,278,682$ | $11,326,580$ | $107,618,671$ |
|  |  |  |  |  |  |  |

Commonwealth Automobile Reinsurers
225 Franklin Street Boston, Massachusetts 02110 www.commauto.com

## NOTICE OF MEETING

## ACTUARIAL COMMITTEE

A meeting of the Actuarial Committee will be held at the offices of Commonwealth Automobile Reinsures, 225 Franklin Street, Boston, on

# WEDNESDAY OCTOBER 7, 2015 AT 10:00 A.M. 

# MEMBERS OF THE COMMITTEE 

Mr. Joseph F. Cofield - Chair
Metropolitan P \& C Insurance Company

Mr. Geoffrey H. Arnold
Mr. Alex F. Butensky
Mr. Jonathan Blake
Mr. Christopher Dupill
Mr. Glenn R. Hiltpold
Mr. John V. Kelly
Mr. Michael Petrarca, Jr.
Ms. Lynellen Ramirez
Mr. John P. Tierney
Ms. Meredith M. Woodcock

Plymouth Rock Assurance Corporation
The Norfolk \& Dedham Group
The Hanover Insurance Company
EM Freedman Insurance Agency, Inc.
Safety Insurance Company
MAPFRE U.S.A. Corporation
Amica Mutual Insurance Company
Arbella Insurance Group
Quincy Mutual Group
Liberty Mutual Group

## AGENDA

## AC

15.01 Records of Previous Meeting

The Records of the Actuarial Committee meeting of September 2, 2015 should be read and approved.

## AC

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

At its September 2, 2015 meeting, the Committee continued discussions relative to the April 1, 2016 Credit Offer, and requested Staff prepare the following exhibits related to the Quota Share Credits incorporating data through July, 2015:

- A Summary of Exhibits (Docket \#AC15.03, Exhibit \#18)
- The current indication, using the methodology codified in Rule 29. (Docket \#AC15.03, Exhibit \#19)
- Credit Indications using the so-called "Relative Range" model, which bases residual market share group ranges on the relative size of today's residual market as compared to the target residual market size established in 2011. (Docket \#AC15.03, Exhibit \#20)
- Plymouth Rock Assurance Corporation Proposal (Docket \#AC15.03, Exhibit \#21)
- Quincy Mutual Two Year Projection Analysis (Docket \#AC15.03, Exhibit \#22)

Staff has also included a summary exhibit of the various credit alternatives to assist the Committee. (Docket \#AC15.03, Exhibit \#23)

Additionally, Staff has included the loss ratio analysis for voluntary and assigned business. These reports are revised to exclude one company's incorrect data. (Docket \#AC15.03, Exhibit \#24)

The Committee should be prepared to continue discussions relative to quota share credits for policies effective April 1, 2016 in order to finalize its recommendation to the Governing Committee at its November 18, 2015 meeting.


## 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 F. GALLIGAN
Financial Services Coordinator

## Attachments

Boston, Massachusetts
September 25, 2015

## Exhibit\# \#Pages Description

| 18 | 1 | Exhibit Summary |
| :---: | :---: | :---: |
| 19 | 13 | Indicated Results (1) - Residual Market Share Group Methodology |
| 20 | 13 | Indicated Results (2) - Relative Credit Factor Ranges |
| 21 | 14 | Indicated Results (3) - PRAC Proposal |
| 22 | 6 | Two Year Projection Analysis For Each Alternative - Quincy Mutual |
| 23 | 1 | Summary of Credit Indications Requested By Committee (Data through May, 2015) |
| 24 | 2 | Loss Ratios By Class/Territory |

4/1/2015 Credit Factors
4/1/16 Indicated - Residual Market Share Group Methodology

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential <br> Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {U }}$ | Potential Credit Premium | \% 人 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,079,664 | 294,536 | 439,287,056 | 46,944 | -84.1\% | 88,920,994 | -79.8\% |
| 15 | 787,860 | 8,165 | 10,951,878 | 1,923 | -76.4\% | 2,662,891 | -75.7\% |
| 17 | 145,779 | 61,664 | 116,333,988 | 26,250 | -57.4\% | 57,393,310 | -50.7\% |
| 18 | 55,230 | 1,208 | 1,968,996 | 180 | -85.1\% | 304,198 | -84.6\% |
| 20 | 34,313 | 33,463 | 116,383,809 | 27,004 | -19.3\% | 94,127,837 | -19.1\% |
| 21 | 15,514 | 5,797 | 14,176,145 | 754 | -87.0\% | 1,639,680 | -88.4\% |
| 25 | 75,827 | 4,091 | 15,262,693 | 3,168 | -22.6\% | 12,425,039 | -18.6\% |
| 26 | 65,048 | 380 | 1,139,323 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,120 | 526 | 809,940 | 303 | -42.3\% | 435,670 | -46.2\% |
| M/M | 168,786 | 19,566 | 4,341,789 | 7,094 | -63.7\% | 1,785,849 | -58.9\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 113,620 | -73.5\% | 259,695,468 | -64.0\% |
| May 2015 | 4,470,398 | 426,727 | 717,464,534 | 112,815 | -73.6\% | 258,379,702 | -64.0\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 2.5\% |  |  |  |
| Estimated Credits Used Credit Utilization |  |  | $\begin{gathered} 682,579,167 \\ 94.7 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 238,992,859 } \\ 92.0 \% \end{gathered}$ |  |


| 4/1/2015 Credit Factors |  |  |  | 4/1/16 - Residual Market Share Group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {U }}$ | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| 1 | 179,645 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 0 | -100.0\% | 0 | -100.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 0 | -100.0\% | 0 | -100.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 | 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 2,321 | -82.8\% | 5,856,888 | -73.7\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 1,170 | -82.9\% | 3,042,268 | -74.6\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 1,622 | -82.0\% | 4,849,507 | -71.1\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 695 | -84.3\% | 2,087,562 | -75.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 | 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 1,701 | -76.6\% | 5,091,667 | -66.1\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 10,404 | -42.2\% | 22,932,584 | -13.0\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 4,412 | -34.7\% | 12,418,441 | -12.6\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,463 | -5.6\% | 4,855,514 | -12.7\% |
| 16* | 13,786 | 12,407 | 19,439,240 | 1,366 | -89.0\% | 4,018,545 | -79.3\% |
| 17 | 17,276 | 409 | 971,286 | 409 | 0.0\% | 887,911 | -8.6\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 1,163 | -91.6\% | 2,602,177 | -87.2\% |
| 19 | 15,574 | 511 | 1,386,654 | 519 | 1.5\% | 1,464,034 | 5.6\% |
| 20* | 17,998 | 14,796 | 23,214,158 | 1,084 | -92.7\% | 3,746,142 | -83.9\% |
| 21* | 47,453 | 46,303 | 93,336,130 | 39,684 | -14.3\% | 82,510,811 | -11.6\% |
| 22* | 15,082 | 15,082 | 32,284,144 | 14,669 | -2.7\% | 30,032,585 | -7.0\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 2,006 | -30.8\% | 5,884,615 | -20.9\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 466 | -63.3\% | 1,600,660 | -38.9\% |
| 25 | 16,590 | 509 | 1,431,503 | 153 | -70.1\% | 547,601 | -61.7\% |
| 26* | 21,365 | 1,639 | 4,353,093 | 1,341 | -18.2\% | 2,808,377 | -35.5\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 0 | -100.0\% | 0 | -100.0\% |
| 40* | 20,516 | 16,612 | 22,547,056 | 1,725 | -89.6\% | 2,945,328 | -86.9\% |
| 41* | 58,739 | 50,559 | 60,000,400 | 4,007 | -92.1\% | 8,467,491 | -85.9\% |
| 42* | 73,454 | 59,665 | 97,080,594 | 3,253 | -94.5\% | 6,041,919 | -93.8\% |
| 43* | 47,483 | 39,935 | 65,821,904 | 3,067 | -92.3\% | 9,340,087 | -85.8\% |
| 44* | 33,690 | 29,883 | 39,223,163 | 3,555 | -88.1\% | 7,054,713 | -82.0\% |
| 45* | 50,938 | 42,902 | 82,296,042 | 5,036 | -88.3\% | 15,391,282 | -81.3\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 113,620 | -73.5\% | 259,695,468 | -64.0\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 2.5\% |  |  |  |

*Summary for Key Territories cited by the Division of Insurance

| Total 400,504 | 329,783 | $539,595,923$ |  | 78,786 | $-76.1 \%$ | $172,357,281$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |$\quad-68.1 \%$

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.15\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.44\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.74\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.63\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.14\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | (1.00) |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.74\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 88,920,994 | 46,944 |
| 23 | 3.63\% | 2.49\% | 1.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 439,287,056 | 294,536 |
| 25 | 2.15\% | 1.50\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.65\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | (350,366,062) | $(247,592)$ |
| 41 | 5.88\% | 3.11\% | 2.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.74\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | ent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.44\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.32\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -79.8\% | -84.1\% |
| 45 | 6.64\% | 3.49\% | 2.79\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.39\% |  |  |  |  |  |  |  |  |  |  |

## *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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.29\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.32\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.60\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 1.93\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.57\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.20\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.59\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 2,662,891 | 1,923 |
| 23 | 2.82\% | 1.98\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,951,878 | 8,165 |
| 25 | 1.73\% | 1.28\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  | $(8,288,987)$ | $(6,242)$ |
| 41 | 1.68\% | 1.28\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.97\% | 0 | 0 | 0 | 0 | - | - | - |  | -75.7\% | -76.4\% |
| 45 | 2.38\% | 1.83\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.53\% |  |  |  |  |  |  |  |  |  |  |

## *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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.04\% | 0 | 0 | 0 | 0 | - | - |  | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.95\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.38\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 2.96\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.81\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.29\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.92\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.09\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.51\% | 0 | 0 | 0 | 0 | - | - |  |  |  |  |
| 12 | 5.90\% | 4.74\% | 3.88\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 |  |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.23\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.34\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.47\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 7.06\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 4.77\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 9.55\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 9.45\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.36\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 57,393,310 | 26,250 |
| 23 | 8.79\% | 6.11\% | 4.96\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.78\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 116,333,988 | 61,664 |
| 25 | 6.65\% | 4.56\% | 2.66\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.22\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.09\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(58,940,678)$ | $(35,414)$ |
| 41 | 12.06\% | 6.14\% | 4.61\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.40\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 6.17\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.40\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -50.7\% | -57.4\% |
| 45 | 12.13\% | 6.63\% | 6.25\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 2.98\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | 2016 Credits | 2015 Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 2.60\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.03\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 3.98\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.76\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 304,198 | 180 |
| 23 | 2.12\% | 1.27\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,968,996 | 1,208 |
| 25 | 0.15\% | 1.68\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 0.40\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | (1,664,798) | $(1,028)$ |
| 41 | 7.29\% | 1.64\% | 1.36\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 1.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | -84.6\% | -85.1\% |
| 45 | 4.86\% | 3.11\% | 2.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.95\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits |  | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  | Change |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.86\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 3.79\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.09\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.39\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.51\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.64\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.72\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.37\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 6.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 5.64\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 5.06\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.51\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.20\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.54\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 12.37\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 16 | 26.59\% | 25.13\% | 20.50\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 9.66\% | 4 | 2 | 2 | 2 | 1.00 | 1.25 | (0.25) |  |  |  |
| 18 | 20.86\% | 22.51\% | 12.89\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.33\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 20.05\% | 5 | 4 | 4 | 4 | 1.25 | 1.50 | (0.25) | Availab | ble Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.30\% | 6 | 5 | 5 | 5 | 1.50 | 1.75 | (0.25) |  |  |  |
| 22 | 33.75\% | 22.17\% | 20.19\% | 6 | 4 | 4 | 4 | 1.25 | 1.75 | (0.50) | 2016 | 94,127,837 | 27,004 |
| 23 | 18.35\% | 10.83\% | 8.91\% | 4 | 2 | 2 | 2 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.99\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,383,809 | 33,463 |
| 25 | 13.28\% | 13.16\% | 13.22\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.36\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.51\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 40 | 24.85\% | 11.38\% | 10.14\% | 5 | 3 | 2 | 3 | 1.00 | 1.50 | (0.50) |  | $(22,255,972)$ | $(6,460)$ |
| 41 | 14.09\% | 9.23\% | 9.28\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 9.20\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 12.44\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.59\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | -19.1\% | -19.3\% |
| 45 | 20.07\% | 18.11\% | 16.01\% | 4 | 4 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.12\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.46\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.49\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 1.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 3.11\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.18\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.36\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.81\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.32\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.86\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 5.62\% | 4.17\% | 1.29\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.70\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 3.20\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 22 | 9.88\% | 2.86\% | 1.84\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 1,639,680 | 754 |
| 23 | 4.67\% | 4.48\% | 3.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 0.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,176,145 | 5,797 |
| 25 | 2.60\% | 0.00\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 0.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 6.03\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(12,536,464)$ | $(5,042)$ |
| 41 | 12.53\% | 5.33\% | 4.65\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.49\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.47\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.96\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -88.4\% | -87.0\% |
| 45 | 10.32\% | 2.31\% | 3.78\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.38\% | 0.00\% | -4.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.35\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 2.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.93\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.06\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 5.70\% | 4 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 6.07\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 9.12\% | 0 | 3 | 2 | 2 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 4.85\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.48\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.15\% | 2 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 12,425,039 | 3,168 |
| 23 | 6.30\% | 3.39\% | 0.53\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 0.24\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 15,262,693 | 4,091 |
| 25 | 8.64\% | 0.00\% | 2.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.83\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 3.47\% | 0 | 0 | 0 | 0 | - | - | - |  | $(2,837,654)$ | (923) |
| 41 | 4.94\% | 4.21\% | 4.61\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.42\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 3.65\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.07\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -18.6\% | -22.6\% |
| 45 | 7.15\% | 5.62\% | 6.59\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.66\% |  |  |  |  |  |  |  |  |  |  |

## *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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.39\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.55\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 1.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,139,323 | 380 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,139,323)$ | (380) |
| 41 | 3.25\% | 1.54\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.70\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.68\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 2.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 3.55\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.23\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 17 | 1.39\% | 1.36\% | 2.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 1.55\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.37\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 435,670 | 303 |
| 23 | 0.98\% | 1.55\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 809,940 | 526 |
| 25 | 1.31\% | 0.80\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.09\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - |  | $(374,270)$ | (222) |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.66\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.77\% | 0 | 0 | 0 | 0 | - | - | - |  | -46.2\% | -42.3\% |
| 45 | 2.31\% | 1.05\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.84\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - |  | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.37\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.21\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.25\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.82\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.65\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.35\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.84\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.21\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.30\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 4.03\% | 4.17\% | 4.71\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.93\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 4.54\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 1,785,849 | 7,094 |
| 23 | 6.85\% | 4.79\% | 3.71\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.89\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 4,341,789 | 19,566 |
| 25 | 3.76\% | 2.63\% | 3.35\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.56\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 5.93\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(2,555,940)$ | $(12,472)$ |
| 41 | 5.70\% | 3.98\% | 3.70\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.07\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 3.78\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.70\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -58.9\% | -63.7\% |
| 45 | 7.16\% | 5.59\% | 4.92\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.92\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors - Data Through July, 2015


## 4/1/2015 Credit Factors

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium |
| :---: | :---: | :---: | :---: |
| 10 | 3,079,664 | 294,536 | 439,287,056 |
| 15 | 787,860 | 8,165 | 10,951,878 |
| 17 | 145,779 | 61,664 | 116,333,988 |
| 18 | 55,230 | 1,208 | 1,968,996 |
| 20 | 34,313 | 33,463 | 116,383,809 |
| 21 | 15,514 | 5,797 | 14,176,145 |
| 25 | 75,827 | 4,091 | 15,262,693 |
| 26 | 65,048 | 380 | 1,139,323 |
| 30 | 62,120 | 526 | 809,940 |
| M/M | 168,786 | 19,566 | 4,341,789 |
| Total | 4,490,140 | 429,395 | 720,655,617 |
| May, 2015 | 4,470,398 | 426,727 | 717,464,534 |
| \% of Total | t. Exp. | 9.6\% |  |



Original Ranges:

|  | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 682,579,167 } \\ 94.7 \% \\ \hline \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 533,522,151 } \\ 94.2 \% \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original | Ranges: |  |  | Relative |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0 | 0.05 | 0 | 0 | 0 | 0.035 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.035 | 0.065 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.065 | 0.095 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.095 | 0.155 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.335 | 0.395 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.47 | 1 | 2.5 | 9 | 0.455 | 1 | 2.5 |


| Credit Eligible <br> Exposures | $\underline{\%} \boldsymbol{L}$ |
| :---: | :---: |
|  |  |
| 177,803 | $-39.6 \%$ |
| 8,165 | $0.0 \%$ |
| 74,930 | $21.5 \%$ |
| 855 | $-29.2 \%$ |
| 32,846 | $-1.8 \%$ |
| 5,847 | $0.9 \%$ |
| 5,440 | $33.0 \%$ |
| 0 | $-100.0 \%$ |
| 684 | $30.1 \%$ |
| 25,634 | $31.0 \%$ |
| 332,204 | $-22.6 \%$ |
|  |  |
| 329,286 | $-22.8 \%$ |
|  |  |
| $7.4 \%$ |  |


| Potential <br> Credit Premium | $\underline{\%} \Delta$ |
| :---: | :---: |
| $269,799,132$ | $-38.6 \%$ |
| $10,951,878$ | $0.0 \%$ |
| $136,684,781$ | $17.5 \%$ |
| $1,521,492$ | $-22.7 \%$ |
| $106,898,836$ | $-8.1 \%$ |
| $14,218,031$ | $0.3 \%$ |
| $19,609,747$ | $28.5 \%$ |
| 0 | $-100.0 \%$ |
| $1,010,097$ | $24.7 \%$ |
| $5,423,673$ | $24.9 \%$ |
| $566,117,666$ | $-21.4 \%$ |
|  |  |
| $562,099,849$ | $-21.7 \%$ |
|  |  |
|  |  |

533,522,151 94.2\%
1.34\% Current Residual Market Rate Using Data Through July, 2015
2.0\% Target Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
$5.0 \% \quad$ Residual Market rate Threshold Point, Credits were given for $5.0 \%$ and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.34 / 2.0)=.67$
2. Round the result from 1. above to the nearest 10 th $=.7$
3. Multiply the result from 2. above by the original average residual market share threshold (. $7 \times .05$ ) $=3.5$
4. Use the same increment for bands as original methodology: .03 for first two bands, .06 for all remaining bands

4/1/2015 Credit Factors

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\Delta$ | Potential Credit Premium | \% $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 179,645 | 0 | 0 | 731 | 0.0\% | 1,362,061 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 1,088 | 0.0\% | 2,172,578 | 0.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 2,359 | 0.0\% | 4,903,494 | 0.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 12,133 | 620.7\% | 18,985,508 | 334.1\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 13,473 | 0.0\% | 22,263,296 | 0.0\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 6,854 | 0.0\% | 11,974,908 | 0.0\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 8,281 | -8.0\% | 15,452,882 | -8.0\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 4,433 | 0.0\% | 8,349,841 | 0.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 2,428 | 282.2\% | 5,737,675 | 171.8\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 13,626 | 87.9\% | 17,929,300 | 19.5\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 18,001 | 0.0\% | 26,373,177 | 0.0\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 6,759 | 0.0\% | 14,216,143 | 0.0\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,910 | 11.6\% | 5,730,826 | 3.1\% |
| 16* | 13,786 | 12,407 | 19,439,240 | 12,407 | 0.0\% | 19,439,240 | 0.0\% |
| 17 | 17,276 | 409 | 971,286 | 409 | 0.0\% | 887,911 | -8.6\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 13,844 | 0.0\% | 20,283,776 | 0.0\% |
| 19 | 15,574 | 511 | 1,386,654 | 895 | 75.1\% | 1,696,237 | 22.3\% |
| 20* | 17,998 | 14,796 | 23,214,158 | 15,340 | 3.7\% | 23,342,121 | 0.6\% |
| 21* | 47,453 | 46,303 | 93,336,130 | 46,303 | 0.0\% | 91,993,548 | -1.4\% |
| 22* | 15,082 | 15,082 | 32,284,144 | 14,830 | -1.7\% | 30,967,340 | -4.1\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 2,918 | 0.7\% | 6,588,535 | -11.4\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 1,972 | 55.1\% | 3,823,658 | 46.0\% |
| 25 | 16,590 | 509 | 1,431,503 | 463 | -9.1\% | 1,284,515 | -10.3\% |
| 26* | 21,365 | 1,639 | 4,353,093 | 1,583 | -3.4\% | 3,161,148 | -27.4\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 1,664 | 0.0\% | 2,905,935 | 0.0\% |
| 40* | 20,516 | 16,612 | 22,547,056 | 16,691 | 0.5\% | 22,457,818 | -0.4\% |
| 41* | 58,739 | 50,559 | 60,000,400 | 6,290 | -87.6\% | 10,858,788 | -81.9\% |
| 42* | 73,454 | 59,665 | 97,080,594 | 60,550 | 1.5\% | 99,019,881 | 2.0\% |
| 43* | 47,483 | 39,935 | 65,821,904 | 4,769 | -88.1\% | 10,579,711 | -83.9\% |
| 44* | 33,690 | 29,883 | 39,223,163 | 29,883 | 0.0\% | 38,363,837 | -2.2\% |
| 45* | 50,938 | 42,902 | 82,296,042 | 5,305 | -87.6\% | 16,279,883 | -80.2\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 332,204 | -22.6\% | 566,117,666 | -21.4\% |

9.6\%
7.4\%
*Summary for Key Territories cited by the Division of Insurance

| Total 400,504 | 329,783 | $539,595,923$ | 213,950 | $-35.1 \%$ | $366,463,316$ | $-32.1 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% of Total Mkt. Exp. | $82.3 \%$ |  | $53.4 \%$ |  |  |  |


| Original Ranges: |  |  | Relative Ranges: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0 | 0.05 | 0 | 0 | 0 | 0.035 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.035 | 0.065 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.065 | 0.095 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.095 | 0.155 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.335 | 0.395 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.47 | 1 | 2.5 | 9 | 0.455 | 1 | 2.5 |

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | 2016 Credits | 2015 Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.15\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.43\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.30\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.11\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.44\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.74\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.65\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.63\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.14\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.74\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 269,799,132 | 177,803 |
| 23 | 3.63\% | 2.49\% | 1.76\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 439,287,056 | 294,536 |
| 25 | 2.15\% | 1.50\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.05\% | 1 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.65\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | $(169,487,925)$ | $(116,733)$ |
| 41 | 5.88\% | 3.11\% | 2.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.74\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.44\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.32\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -38.6\% | -39.6\% |
| 45 | 6.64\% | 3.49\% | 2.79\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.39\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15

## Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.29\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.32\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.60\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 1.93\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.57\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.20\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.59\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 10,951,878 | 8,165 |
| 23 | 2.82\% | 1.98\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,951,878 | 8,165 |
| 25 | 1.73\% | 1.28\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.97\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.53\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.95\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.06\% | 1 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.38\% | 1 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 2.96\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.81\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.29\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.92\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.09\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.51\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 12 | 5.90\% | 4.74\% | 3.88\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.23\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.34\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.47\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 7.06\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 4.77\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 9.55\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 9.45\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.36\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - | 2016 | 136,684,781 | 74,930 |
| 23 | 8.79\% | 6.11\% | 4.96\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.78\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | 2015 | 116,333,988 | 61,664 |
| 25 | 6.65\% | 4.56\% | 2.66\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.22\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.09\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 20,350,793 | 13,266 |
| 41 | 12.06\% | 6.14\% | 4.61\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.40\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 6.17\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.40\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 17.5\% | 21.5\% |
| 45 | 12.13\% | 6.63\% | 6.25\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 2.98\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18 Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | 2016 Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 2.02\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 2.60\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.03\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 3.98\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 1.81\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 | Availab | redit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.37\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.76\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 1,521,492 | 855 |
| 23 | 2.12\% | 1.27\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 2.37\% | 1 | 0 | 0 | 0 | - | - | - | 2015 | 1,968,996 | 1,208 |
| 25 | 0.15\% | 1.68\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 1.80\% | 1 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 0.40\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(447,504)$ | (353) |
| 41 | 7.29\% | 1.64\% | 1.36\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 1.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | -22.7\% | -29.2\% |
| 45 | 4.86\% | 3.11\% | 2.89\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.95\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20
Relative Range Methodology

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits |  | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  | Change |  | Credits |  |
| 1 | 4.03\% | 3.98\% | 5.86\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 3.79\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.09\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.39\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.51\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.64\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.72\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.37\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 6.38\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 5.64\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 5.06\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.51\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.20\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.54\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 12.37\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 16 | 26.59\% | 25.13\% | 20.50\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 9.66\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 18 | 20.86\% | 22.51\% | 12.89\% | 4 | 5 | 3 | 4 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.33\% | 3 | 4 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 20.05\% | 5 | 4 | 4 | 4 | 1.25 | 1.50 | (0.25) | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.30\% | 6 | 5 | 5 | 5 | 1.50 | 1.75 | (0.25) |  |  |  |
| 22 | 33.75\% | 22.17\% | 20.19\% | 7 | 5 | 4 | 5 | 1.50 | 1.75 | (0.25) | 2016 | 106,898,836 | 32,846 |
| 23 | 18.35\% | 10.83\% | 8.91\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.99\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,383,809 | 33,463 |
| 25 | 13.28\% | 13.16\% | 13.22\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.36\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.51\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 40 | 24.85\% | 11.38\% | 10.14\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | $(9,484,973)$ | (618) |
| 41 | 14.09\% | 9.23\% | 9.28\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 18.64\% | 12.38\% | 9.20\% | 4 | 3 | 2 | 3 | 1.00 | 1.25 | (0.25) |  | cent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 12.44\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.59\% | 5 | 4 | 3 | 4 | 1.25 | 1.50 | (0.25) |  | -8.1\% | -1.8\% |
| 45 | 20.07\% | 18.11\% | 16.01\% | 4 | 4 | 4 | 4 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.12\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.46\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.49\% | 1 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 2.05\% | 1 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.18\% | 1 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 1.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 3.11\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.51\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.18\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.36\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.81\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.32\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.86\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 5.62\% | 4.17\% | 1.29\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.70\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 3.20\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 1.84\% | 3 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 14,218,031 | 5,847 |
| 23 | 4.67\% | 4.48\% | 3.04\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 24 | 6.40\% | 2.76\% | 0.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,176,145 | 5,797 |
| 25 | 2.60\% | 0.00\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 0.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 6.03\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 41,886 | 50 |
| 41 | 12.53\% | 5.33\% | 4.65\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.49\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.47\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.96\% | 2 | 0 | 1 | 1 | 1.00 | 1.00 | - |  | 0.3\% | 0.9\% |
| 45 | 10.32\% | 2.31\% | 3.78\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.38\% | 0.00\% | -4.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.35\% |  |  |  |  |  |  |  |  |  |  |

*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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 2.75\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.16\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.93\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.06\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 5.70\% | 4 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.84\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 6.07\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 9.12\% | 1 | 3 | 2 | 2 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 4.85\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.48\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.15\% | 3 | 2 | 0 | 2 | 1.00 | 1.00 | - | 2016 | 19,609,747 | 5,440 |
| 23 | 6.30\% | 3.39\% | 0.53\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 0.24\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 15,262,693 | 4,091 |
| 25 | 8.64\% | 0.00\% | 2.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.83\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 3.47\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  | 4,347,054 | 1,349 |
| 41 | 4.94\% | 4.21\% | 4.61\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.42\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  | ent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 3.65\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.07\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | 28.5\% | 33.0\% |
| 45 | 7.15\% | 5.62\% | 6.59\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.66\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.39\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.55\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 1.52\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 1.72\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,139,323 | 380 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,139,323)$ | (380) |
| 41 | 3.25\% | 1.54\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.70\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

## *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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30 Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.68\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 2.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 3.55\% | 1 | 2 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.23\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 1.39\% | 1.36\% | 2.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 1.55\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.37\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 1,010,097 | 684 |
| 23 | 0.98\% | 1.55\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 809,940 | 526 |
| 25 | 1.31\% | 0.80\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.09\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - |  | 200,157 | 158 |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.66\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.77\% | 1 | 0 | 0 | 0 | - | - | - |  | 24.7\% | 30.1\% |
| 45 | 2.31\% | 1.05\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.84\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM
Relative Range Methodology

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.37\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.21\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.41\% | 1 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.58\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.25\% | 1 | 1 | 0 | 1 | 1.00 | - | 1.00 |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.82\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.65\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.35\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.84\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.21\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.30\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.30\% | 1 | 0 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 20 | 4.03\% | 4.17\% | 4.71\% | 1 | 1 | 1 | 1 | 1.00 | - | 1.00 | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.93\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 4.54\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 5,423,673 | 25,634 |
| 23 | 6.85\% | 4.79\% | 3.71\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.89\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2015 | 4,341,789 | 19,566 |
| 25 | 3.76\% | 2.63\% | 3.35\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.56\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 5.93\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  | 1,081,885 | 6,068 |
| 41 | 5.70\% | 3.98\% | 3.70\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.07\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 3.78\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.70\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | 24.9\% | 31.0\% |
| 45 | 7.16\% | 5.59\% | 4.92\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.92\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors Relative Range Methodology - Data Through July, 2015


4/1/2015 Credit Factors
4/1/16 Indicated - Relative Ranges (PRAC Proposal)

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\triangle$ | Potential Credit Premium | \% 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,079,664 | 294,536 | 439,287,056 | 294,536 | 0.0\% | 439,287,056 | 0.0\% |
| 15 | 787,860 | 8,165 | 10,951,878 | 8,165 | 0.0\% | 10,951,878 | 0.0\% |
| 17 | 145,779 | 61,664 | 116,333,988 | 61,664 | 0.0\% | 116,333,988 | 0.0\% |
| 18 | 55,230 | 1,208 | 1,968,996 | 853 | -29.4\% | 1,891,734 | -3.9\% |
| 20 | 34,313 | 33,463 | 116,383,809 | 34,194 | 2.2\% | 121,299,020 | 4.2\% |
| 21 | 15,514 | 5,797 | 14,176,145 | 4,897 | -15.5\% | 12,217,849 | -13.8\% |
| 25 | 75,827 | 4,091 | 15,262,693 | 7,563 | 84.9\% | 25,296,969 | 65.7\% |
| 26 | 65,048 | 380 | 1,139,323 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,120 | 526 | 809,940 | 684 | 30.1\% | 1,010,097 | 24.7\% |
| M/M | 168,786 | 19,566 | 4,341,789 | 25,939 | 32.6\% | 5,496,011 | 26.6\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 438,496 | 2.1\% | 733,784,604 | 1.8\% |

\% of Total Mkt. Exp. $\quad 9.6 \%$

| Estimated Credits Used | $682,579,167$ | Estimated Credits Used | $694,569,688$ |
| :--- | :---: | :--- | :---: |
| Credit Utilization | $94.7 \%$ | Credit Utilization | $94.7 \%$ |

94.7\%
94.7\%

|  |  | Original | Ranges | 201 |  |  | ges | 201 | ges |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | Factor | Lower | Upper | Lower | Upper | Lower | Upper | Lower | Upper |
| 0 | 0 | 0.00 | 0.05 | 0.00 | 0.05 | 0.00 | 0.03 | 0.00 | 0.03 |
| 1 | 1 | 0.05 | 0.08 | 0.05 | 0.07 | 0.03 | 0.05 | 0.03 | 0.04 |
| 2 | 1 | 0.08 | 0.11 | 0.07 | 0.10 | 0.05 | 0.07 | 0.04 | 0.06 |
| 3 | 1 | 0.11 | 0.17 | 0.10 | 0.16 | 0.07 | 0.12 | 0.06 | 0.09 |
| 4 | 1.25 | 0.17 | 0.23 | 0.16 | 0.21 | 0.12 | 0.16 | 0.09 | 0.12 |
| 5 | 1.5 | 0.23 | 0.29 | 0.21 | 0.27 | 0.16 | 0.20 | 0.12 | 0.16 |
| 6 | 1.75 | 0.29 | 0.35 | 0.27 | 0.33 | 0.20 | 0.24 | 0.16 | 0.19 |
| 7 | 2 | 0.35 | 0.41 | 0.33 | 0.38 | 0.24 | 0.28 | 0.19 | 0.22 |
| 8 | 2.25 | 0.41 | 0.47 | 0.38 | 0.44 | 0.28 | 0.32 | 0.22 | 0.25 |
| 9 | 2.5 | 0.47 | 1.00 | 0.44 | 1.00 | 0.32 | 1.00 | 0.25 | 1.00 |
| MAIP Volume |  | 2.48\% |  | 2.29\% |  | 1.68\% |  | 1.34\% |  |

Relative Ranges for each year are scaled to the original upper and lower bounds based on Relative MAIP Volume

## 4/1/2015 Credit Factors

4/1/16 - Relative Ranges (PRAC Proposal)

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% 4 | Potential Credit Premium | \% $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 179,645 | 0 | 0 | 731 | 0.0\% | 1,362,061 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 1,088 | 0.0\% | 2,172,578 | 0.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 2,359 | 0.0\% | 4,903,494 | 0.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 1,349 | 0.0\% | 3,191,218 | 0.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 | 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 13,473 | 0.0\% | 22,263,296 | 0.0\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 6,854 | 0.0\% | 11,974,908 | 0.0\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 8,281 | -8.0\% | 15,452,882 | -8.0\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 4,433 | 0.0\% | 8,349,841 | 0.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 | 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 12,677 | 74.8\% | 15,929,118 | 6.2\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 20,804 | 15.6\% | 34,646,791 | 31.4\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 6,759 | 0.0\% | 15,262,574 | 7.4\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,608 | 0.0\% | 5,890,471 | 6.0\% |
| 16* | 13,786 | 12,407 | 19,439,240 | 12,407 | 0.0\% | 20,096,962 | 3.4\% |
| 17 | 17,276 | 409 | 971,286 | 714 | 74.6\% | 1,043,624 | 7.4\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 13,844 | 0.0\% | 20,459,296 | 0.9\% |
| 19 | 15,574 | 511 | 1,386,654 | 895 | 75.1\% | 1,999,124 | 44.2\% |
| 20* | 17,998 | 14,796 | 23,214,158 | 15,128 | 2.2\% | 23,297,463 | 0.4\% |
| 21* | 47,453 | 46,303 | 93,336,130 | 46,814 | 1.1\% | 94,556,516 | 1.3\% |
| 22* | 15,082 | 15,082 | 32,284,144 | 14,830 | -1.7\% | 32,102,550 | -0.6\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 3,123 | 7.8\% | 7,331,934 | -1.4\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 948 | -25.4\% | 1,711,383 | -34.6\% |
| 25 | 16,590 | 509 | 1,431,503 | 463 | -9.1\% | 1,421,415 | -0.7\% |
| 26* | 21,365 | 1,639 | 4,353,093 | 1,583 | -3.4\% | 3,812,214 | -12.4\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 1,664 | 0.0\% | 2,905,935 | 0.0\% |
| 40* | 20,516 | 16,612 | 22,547,056 | 16,691 | 0.5\% | 22,733,888 | 0.8\% |
| 41* | 58,739 | 50,559 | 60,000,400 | 50,594 | 0.1\% | 60,993,314 | 1.7\% |
| 42* | 73,454 | 59,665 | 97,080,594 | 59,665 | 0.0\% | 97,080,594 | 0.0\% |
| 43* | 47,483 | 39,935 | 65,821,904 | 39,935 | 0.0\% | 65,821,904 | 0.0\% |
| 44* | 33,690 | 29,883 | 39,223,163 | 29,883 | 0.0\% | 39,223,163 | 0.0\% |
| 45* | 50,938 | 42,902 | 82,296,042 | 42,568 | -0.8\% | 82,577,334 | 0.3\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 438,496 | 2.1\% | 733,784,604 | 1.8\% |

*Summary for Key Territories cited by the Division of Insurance

| Total 400,504 | 329,783 | $539,595,923$ |  | 330,099 | $0.1 \%$ | $542,295,903$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Base Year | 2012 | 0 | $>$ | $\leq$ | Credits |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 0.00 | 0.05 | 0.00 | 0 |
|  | $2.75 \%$ | 2 | 0.05 | 0.08 | 1.00 | 1 |
| Relativity: | 1.00 | 3 | 0.11 | 0.11 | 1.00 | 2 |
|  |  | 4 | 0.17 | 0.23 | 1.00 | 3 |
|  |  | 5 | 0.23 | 0.29 | 1.50 | 4 |
|  |  | 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 |


|  |  |  | $>$ | $\leq$ | Credits |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 0 | 0.00 | 0.05 | 0.00 | 0 |
| MAIP: | $2.29 \%$ | 2 | 0.05 | 0.07 | 1.00 | 1 |
| Relativity: | 0.93 | 3 | 0.10 | 0.10 | 1.00 | 2 |
|  |  | 4 | 0.16 | 0.16 | 1.00 | 3 |
|  |  | 5 | 0.21 | 0.27 | 1.25 | 4 |
|  |  | 6 | 0.27 | 0.33 | 1.50 | 5 |
|  |  | 7 | 0.33 | 0.38 | 2.00 | 6 |
|  |  | 8 | 0.38 | 0.44 | 2.25 | 7 |
|  |  | 9 | 0.44 | 1.00 | 2.50 | 9 |


|  |  |  | $>$ | $\leq$ | Credits |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 0 | 0.00 | 0.03 | 0.00 | 0 |
| MAIP: | $1.68 \%$ | 2 | 0.03 | 0.05 | 1.00 | 1 |
| Relativity: | 0.68 | 3 | 0.05 | 0.07 | 1.00 | 2 |
|  |  | 4 | 0.12 | 0.12 | 1.00 | 3 |
|  |  | 5 | 0.16 | 0.20 | 1.25 | 4 |
|  |  | 6 | 0.20 | 0.24 | 1.50 | 5 |
|  |  | 7 | 0.24 | 0.28 | 2.00 | 6 |
|  |  | 8 | 0.28 | 0.32 | 2.25 | 7 |
|  |  | 9 | 0.32 | 1.00 | 2.50 | 9 |


|  |  |  | $>$ | $\leq$ | Credits |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 | 0 | 0.00 | 0.03 | 0.00 | 0 |
| MAIP: | $1.34 \%$ | 2 | 0.03 | 0.04 | 1.00 | 1 |
| Relativity: | 0.54 | 3 | 0.04 | 0.06 | 1.00 | 2 |
|  |  | 4 | 0.06 | 0.09 | 1.00 | 3 |
|  |  | 5 | 0.09 | 0.12 | 1.25 | 4 |
|  |  | 6 | 0.12 | 0.16 | 1.50 | 5 |
|  |  | 7 | 0.16 | 0.19 | 1.75 | 6 |
|  |  | 8 | 0.19 | 0.22 | 2.00 | 7 |
|  |  | 9 | 0.22 | 0.25 | 2.25 | 8 |
|  |  |  | 0.25 | 1.00 | 2.50 | 9 |

Margin: $\quad 90 \% \quad \leftarrow$ Applied to Base Year MAIP Size Before Calculating Reli

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.15\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.43\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.44\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.74\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.65\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.63\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.14\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.74\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 439,287,056 | 294,536 |
| 23 | 3.63\% | 2.49\% | 1.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 439,287,056 | 294,536 |
| 25 | 2.15\% | 1.50\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.65\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | - | - |
| 41 | 5.88\% | 3.11\% | 2.48\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.74\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | rcent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.44\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.32\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 6.64\% | 3.49\% | 2.79\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.39\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.29\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.32\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.60\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 1.93\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.57\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.20\% | 1 | 1 | 2 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.59\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 10,951,878 | 8,165 |
| 23 | 2.82\% | 1.98\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,951,878 | 8,165 |
| 25 | 1.73\% | 1.28\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.28\% | 0 | 1 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.97\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.53\% |  |  |  |  |  |  |  |  |  |  |

## *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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17 Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  | Credits |  |
| 1 | 3.25\% | 2.47\% | 2.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.95\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.38\% | 0 | 1 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 2.96\% | 0 | 1 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.81\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.29\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.92\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.09\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.51\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 3.88\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.23\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.34\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.47\% | 1 | 2 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 7.06\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 4.77\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 9.55\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 9.45\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.36\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 | - | 2016 | 116,333,988 | 61,664 |
| 23 | 8.79\% | 6.11\% | 4.96\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.78\% | 0 | 1 | 0 | 0 | - | - | - | 2015 | 116,333,988 | 61,664 |
| 25 | 6.65\% | 4.56\% | 2.66\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.22\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.09\% | 3 | 3 | 2 | 3 | 1.00 | 1.00 | - |  | - | - |
| 41 | 12.06\% | 6.14\% | 4.61\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.40\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 6.17\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.40\% | 3 | 2 | 3 | 3 | 1.00 | 1.00 | - |  | 0.0\% | 0.0\% |
| 45 | 12.13\% | 6.63\% | 6.25\% | 3 | 2 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 2.98\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  |  | Indicated Mkt Share Range | Range | Selected Range* | 2016 Credits | 2015 Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.12\% | 0.63\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 2.60\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.03\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 3.98\% | 1 | 2 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 1.81\% | 0 | 1 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.37\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.76\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2016 | 1,891,734 | 853 |
| 23 | 2.12\% | 1.27\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,968,996 | 1,208 |
| 25 | 0.15\% | 1.68\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 1.80\% | 0 | 1 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 0.40\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(77,262)$ | (355) |
| 41 | 7.29\% | 1.64\% | 1.36\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 1.92\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | -3.9\% | -29.4\% |
| 45 | 4.86\% | 3.11\% | 2.89\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.95\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 4.03\% | 3.98\% | 5.86\% | 0 | 1 | 2 | 1 | 1.00 | - | 1.00 | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 3.79\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.09\% | 2 | 1 | 2 | 2 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.39\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.51\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.64\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.72\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.37\% | 3 | 2 | 3 | 3 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 6.38\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 5.64\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 5.06\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.51\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.20\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.54\% | 3 | 4 | 4 | 4 | 1.25 | 1.00 | 0.25 |  |  |  |
| 15 | 21.15\% | 13.01\% | 12.37\% | 5 | 4 | 5 | 5 | 1.50 | 1.25 | 0.25 |  |  |  |
| 16 | 26.59\% | 25.13\% | 20.50\% | 5 | 7 | 7 | 7 | 2.00 | 1.50 | 0.50 |  |  |  |
| 17 | 19.61\% | 9.89\% | 9.66\% | 4 | 3 | 4 | 4 | 1.25 | 1.25 | - |  |  |  |
| 18 | 20.86\% | 22.51\% | 12.89\% | 4 | 6 | 5 | 5 | 1.50 | 1.25 | 0.25 |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.33\% | 3 | 5 | 5 | 5 | 1.50 | 1.00 | 0.50 |  |  |  |
| 20 | 24.66\% | 18.55\% | 20.05\% | 5 | 5 | 7 | 5 | 1.50 | 1.50 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.30\% | 6 | 6 | 8 | 6 | 1.75 | 1.75 | - |  |  |  |
| 22 | 33.75\% | 22.17\% | 20.19\% | 7 | 6 | 7 | 7 | 2.00 | 1.75 | 0.25 | 2016 | 121,299,020 | 34,194 |
| 23 | 18.35\% | 10.83\% | 8.91\% | 4 | 3 | 3 | 3 | 1.00 | 1.25 | (0.25) |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.99\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2015 | 116,383,809 | 33,463 |
| 25 | 13.28\% | 13.16\% | 13.22\% | 3 | 4 | 5 | 4 | 1.25 | 1.00 | 0.25 |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.36\% | 5 | 4 | 5 | 5 | 1.50 | 1.50 | - |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.51\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 40 | 24.85\% | 11.38\% | 10.14\% | 5 | 3 | 4 | 4 | 1.25 | 1.50 | (0.25) |  | 4,915,211 | 731 |
| 41 | 14.09\% | 9.23\% | 9.28\% | 3 | 3 | 4 | 3 | 1.00 | 1.00 |  |  |  |  |
| 42 | 18.64\% | 12.38\% | 9.20\% | 4 | 4 | 4 | 4 | 1.25 | 1.25 | - |  | rent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 12.44\% | 4 | 4 | 5 | 4 | 1.25 | 1.25 | - |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.59\% | 5 | 5 | 5 | 5 | 1.50 | 1.50 | - |  | 4.2\% | 2.2\% |
| 45 | 20.07\% | 18.11\% | 16.01\% | 4 | 5 | 6 | 5 | 1.50 | 1.25 | 0.25 |  |  |  |
| 99 | 2.48\% | 3.08\% | 1.75\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.12\% |  |  |  |  |  |  |  |  |  |  |

*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.

## Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.46\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.49\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 2.05\% | 0 | 1 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 1.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 3.11\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.51\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.18\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.36\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.81\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.32\% | 3 | 4 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.86\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 5.62\% | 4.17\% | 1.29\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.70\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 3.20\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 1.84\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 12,217,849 | 4,897 |
| 23 | 4.67\% | 4.48\% | 3.04\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 24 | 6.40\% | 2.76\% | 0.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,176,145 | 5,797 |
| 25 | 2.60\% | 0.00\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 0.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 6.03\% | 3 | 3 | 3 | 3 | 1.00 | 1.00 | - |  | $(1,958,295)$ | (899) |
| 41 | 12.53\% | 5.33\% | 4.65\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.49\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.47\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.96\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | -13.8\% | -15.5\% |
| 45 | 10.32\% | 2.31\% | 3.78\% | 3 | 0 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.38\% | 0.00\% | -4.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.15\% | 2.98\% | 2.35\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $2016$ <br> Credits | $2015$ <br> Credits |  | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  | Change |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.20\% | 0 | 1 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 2.75\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.16\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.93\% | 1 | 2 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.06\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 5.70\% | 4 | 1 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.84\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 6.07\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 9.12\% | 0 | 3 | 4 | 3 | 1.00 | - | 1.00 |  |  |  |
| 20 | 8.81\% | 5.74\% | 4.85\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.48\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.15\% | 3 | 3 | 1 | 3 | 1.00 | 1.00 | - | 2016 | 25,296,969 | 7,563 |
| 23 | 6.30\% | 3.39\% | 0.53\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.30\% | 2.03\% | 0.24\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 15,262,693 | 4,091 |
| 25 | 8.64\% | 0.00\% | 2.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.83\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 3.47\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  | 10,034,276 | 3,472 |
| 41 | 4.94\% | 4.21\% | 4.61\% | 0 | 1 | 2 | 1 | 1.00 | - | 1.00 |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.42\% | 0 | 1 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 3.65\% | 2 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.07\% | 3 | 1 | 2 | 2 | 1.00 | 1.00 | - |  | 65.7\% | 84.9\% |
| 45 | 7.15\% | 5.62\% | 6.59\% | 2 | 2 | 3 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.66\% |  |  |  |  |  |  |  |  |  |  |

*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.

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## Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26

Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.39\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.55\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 1.72\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | - | - |
| 23 | 0.91\% | 1.55\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | ) |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,139,323 | 380 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  | $(1,139,323)$ | (380) |
| 41 | 3.25\% | 1.54\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - |  | -100.0\% | -100.0\% |
| 45 | 5.87\% | 1.57\% | 1.70\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 Credits | 2015 <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 0.99\% | 0.64\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.68\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 2.94\% | 0 | 1 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 3.55\% | 1 | 2 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.23\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 1.39\% | 1.36\% | 2.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 1.55\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.37\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 1,010,097 | 684 |
| 23 | 0.98\% | 1.55\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 809,940 | 526 |
| 25 | 1.31\% | 0.80\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.09\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - |  | 200,157 | 158 |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.66\% | 0 | 0 | 0 | 0 | - | - | - |  | ent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.77\% | 0 | 0 | 0 | 0 | - | - | - |  | 24.7\% | 30.1\% |
| 45 | 2.31\% | 1.05\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.84\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
PAGE 13 OF 14
Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM
Relative Range Methodology - PRAC Proposal

|  | Residual Market Share |  |  | Indicate | Mkt Shar | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | 2014 | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.51\% | 1.25\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.50\% | 1.38\% | 1.17\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.63\% | 1.37\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.57\% | 1.52\% | 1.21\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.18\% | 1.81\% | 1.64\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.36\% | 1.97\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.92\% | 2.44\% | 2.08\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.78\% | 2.60\% | 2.01\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.91\% | 2.44\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 4.43\% | 2.95\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 3.90\% | 2.96\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.32\% | 3.68\% | 3.25\% | 0 | 1 | 1 | 1 | 1.00 | - | 1.00 |  |  |  |
| 13 | 5.08\% | 4.33\% | 3.82\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.67\% | 4.70\% | 3.65\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 15 | 7.59\% | 7.08\% | 5.35\% | 2 | 3 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 9.92\% | 8.70\% | 7.84\% | 2 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.40\% | 3.38\% | 4.21\% | 0 | 1 | 2 | 1 | 1.00 | - | 1.00 |  |  |  |
| 18 | 5.43\% | 5.25\% | 4.30\% | 1 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.14\% | 3.33\% | 4.30\% | 0 | 1 | 2 | 1 | 1.00 | - | 1.00 |  |  |  |
| 20 | 4.03\% | 4.17\% | 4.71\% | 0 | 1 | 2 | 1 | 1.00 | - | 1.00 | Availa | Credit Prem: | Credit Eligible Exp: |
| 21 | 9.96\% | 8.17\% | 7.93\% | 2 | 3 | 3 | 3 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.99\% | 6.03\% | 4.54\% | 3 | 2 | 2 | 2 | 1.00 | 1.00 | - | 2016 | 5,496,011 | 25,939 |
| 23 | 6.85\% | 4.79\% | 3.71\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 24 | 5.22\% | 3.74\% | 1.89\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - | 2015 | 4,341,789 | 19,566 |
| 25 | 3.76\% | 2.63\% | 3.35\% | 0 | 0 | 1 | 0 | - | - | - |  |  |  |
| 26 | 8.28\% | 7.69\% | 4.56\% | 2 | 3 | 2 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.26\% | 1.21\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 8.56\% | 6.78\% | 5.93\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | 1,154,223 | 6,374 |
| 41 | 5.70\% | 3.98\% | 3.70\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 8.14\% | 6.17\% | 5.07\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 5.84\% | 4.22\% | 3.78\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.90\% | 7.20\% | 6.70\% | 2 | 3 | 3 | 3 | 1.00 | 1.00 | - |  | 26.6\% | 32.6\% |
| 45 | 7.16\% | 5.59\% | 4.92\% | 2 | 2 | 2 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 1.42\% | 0.43\% | 0.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.66\% | 2.26\% | 1.92\% |  |  |  |  |  |  |  |  |  |  |

*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.

2016 Proposed Credit Factors Relative Range Methodology - Data Through July, 2015


Two Year Projection Analysis - Current Methodology

4/1/2015 Credit Factors
4/1/16 Indicated - Residual Market Share Group Methodology

| Rate Class | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% ${ }^{\text {L }}$ | Potential Credit Premium | \% ${ }^{\text {L }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 3,079,664 | 294,536 | 439,287,056 | 46,944 | -84.1\% | 88,920,994 | -79.8\% |
| 15 | 787,860 | 8,165 | 10,951,878 | 1,923 | -76.4\% | 2,662,891 | -75.7\% |
| 17 | 145,779 | 61,664 | 116,333,988 | 12,639 | -79.5\% | 31,047,890 | -73.3\% |
| 18 | 55,230 | 1,208 | 1,968,996 | 0 | -100.0\% | 0 | -100.0\% |
| 20 | 34,313 | 33,463 | 116,383,809 | 27,734 | -17.1\% | 93,714,892 | -19.5\% |
| 21 | 15,514 | 5,797 | 14,176,145 | 215 | -96.3\% | 484,042 | -96.6\% |
| 25 | 75,827 | 4,091 | 15,262,693 | 1,602 | -60.8\% | 6,758,723 | -55.7\% |
| 26 | 65,048 | 380 | 1,139,323 | 0 | -100.0\% | 0 | -100.0\% |
| 30 | 62,120 | 526 | 809,940 | 0 | -100.0\% | 0 | -100.0\% |
| M/M | 168,786 | 19,566 | 4,341,789 | 4,778 | -75.6\% | 1,177,790 | -72.9\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 95,835 | -77.7\% | 224,767,222 | -68.8\% |

\% of Total Mkt. Exp. $\quad 9.6 \% \quad 2.1 \%$
$\left.\begin{array}{cccc}\text { Estimated Credits Used } & \begin{array}{c}\text { 682,579,167 } \\ \text { Credit Utilization }\end{array} & \begin{array}{c}\text { Estimated Credits Used } \\ \text { Credit Utilization }\end{array} & \begin{array}{c}\text { 205,956,972 } \\ 91.6 \%\end{array} \\ \hline & & \begin{array}{c}\text { Residual } \\ \text { Mark Share }\end{array} & \begin{array}{c}\text { Keep } \\ \text { Out }\end{array} \\ \text { Credits }\end{array}\right]$

Two Year Projection Analysis - Current Methodology

| 4/1/2015 Credit Factors |  |  |  | 4/1/16 - Residual Market Share Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures $\% \Delta$ | Potential Credit Premium | \% 4 |
| 1 | 179,645 | 0 | 0 | 731 0.0\% | 1,362,061 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | $0-100.0 \%$ | 0 | -100.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | $0-100.0 \%$ | 0 | -100.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | $0-100.0 \%$ | 0 | -100.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 2,321 -82.8\% | 5,856,888 | -73.7\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 1,170 -82.9\% | 3,042,268 | -74.6\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 1,622 -82.0\% | 4,849,507 | -71.1\% |
| 10 | 95,743 | 4,433 | 8,349,841 | $695-84.3 \%$ | 2,087,562 | -75.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 1,701 -76.6\% | 5,091,667 | -66.1\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 2,759 -84.7\% | 8,996,442 | -65.9\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 3,653 -46.0\% | 9,817,883 | -30.9\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 1,310 -49.8\% | 2,410,888 | -56.6\% |
| 16 | 13,786 | 12,407 | 19,439,240 | 1,366 -89.0\% | 3,689,684 | -81.0\% |
| 17 | 17,276 | 409 | 971,286 | $102-75.1 \%$ | 333,501 | -65.7\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 671 -95.2\% | 2,049,026 | -89.9\% |
| 19 | 15,574 | 511 | 1,386,654 | 239 -53.2\% | 847,042 | -38.9\% |
| 20 | 17,998 | 14,796 | 23,214,158 | 823 -94.4\% | 2,900,329 | -87.5\% |
| 21 | 47,453 | 46,303 | 93,336,130 | 39,684 -14.3\% | 82,510,811 | -11.6\% |
| 22 | 15,082 | 15,082 | 32,284,144 | 14,331 -5.0\% | 29,404,644 | -8.9\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 663 -77.1\% | 2,638,825 | -64.5\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 466 -63.3\% | 1,600,660 | -38.9\% |
| 25 | 16,590 | 509 | 1,431,503 | $153-70.1 \%$ | 547,601 | -61.7\% |
| 26 | 21,365 | 1,639 | 4,353,093 | 351 -78.6\% | 1,302,133 | -70.1\% |
| 27 | 412,141 | 1,664 | 2,905,935 | $0-100.0 \%$ | 0 | -100.0\% |
| 40 | 20,516 | 16,612 | 22,547,056 | 1,725 -89.6\% | 2,945,328 | -86.9\% |
| 41 | 58,739 | 50,559 | 60,000,400 | 1,026 -98.0\% | 3,070,813 | -94.9\% |
| 42 | 73,454 | 59,665 | 97,080,594 | 3,253 -94.5\% | 6,041,919 | -93.8\% |
| 43 | 47,483 | 39,935 | 65,821,904 | 2,519 -93.7\% | 7,375,700 | -88.8\% |
| 44 | 33,690 | 29,883 | 39,223,163 | 3,555 -88.1\% | 7,054,713 | -82.0\% |
| 45 | 50,938 | 42,902 | 82,296,042 | 3,617 -91.6\% | 13,722,568 | -83.3\% |
| 99 | 12,368 | 0 | 0 | 0 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 95,835 -77.7\% | 224,767,222 | -68.8\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 2.1\% |  |  |
|  |  |  |  | Residual Mark Share Group | Keep Out Credits |  |
|  |  |  |  | 0 | 0.00 |  |
|  |  |  |  | 1 | 1.00 |  |
|  |  |  |  | 2 | 1.00 |  |
|  |  |  |  | 3 | 1.00 |  |
|  |  |  |  | 4 | 1.25 |  |
|  |  |  |  | 5 | 1.50 |  |
|  |  |  |  | 6 | 1.75 |  |
|  |  |  |  | 7 | 2.00 |  |
|  |  |  |  | 8 | 2.25 |  |
|  |  |  |  | 9 | 2.50 |  |

4/1/2015 Credit Factors

| Rate <br> Class | Total Mkt <br> Exposures | Credit Eligible <br> Exposures | Potential <br> Credit Premium |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 0}$ | $3,079,664$ | 294,536 | $439,287,056$ |
| $\mathbf{1 5}$ | 787,860 | 8,165 | $10,951,878$ |
| $\mathbf{1 7}$ | 145,779 | 61,664 | $116,333,988$ |
| $\mathbf{1 8}$ | 55,230 | 1,208 | $1,968,996$ |
| $\mathbf{2 0}$ | 34,313 | 33,463 | $116,383,809$ |
| $\mathbf{2 1}$ | 15,514 | 5,797 | $14,176,145$ |
| $\mathbf{2 5}$ | 75,827 | 4,091 | $15,262,693$ |
| $\mathbf{2 6}$ | 65,048 | 380 | $1,139,323$ |
| $\mathbf{3 0}$ | 62,120 | 526 | 809,940 |
| M/M | 168,786 | 19,566 | $4,341,789$ |
| Total | $\mathbf{4 , 4 9 0 , 1 4 0}$ | $\mathbf{4 2 9 , 3 9 5}$ | $\mathbf{7 2 0 , 6 5 5 , 6 1 7}$ |


| Potential <br> Credit Premium | $\underline{\%} \Delta$ |
| :---: | :---: |
|  |  |
| $154,050,150$ | $-64.9 \%$ |
| $10,951,878$ | $0.0 \%$ |
| $66,746,087$ | $-42.6 \%$ |
| 671,348 | $-65.9 \%$ |
| $102,061,590$ | $-12.3 \%$ |
| $5,772,762$ | $-59.3 \%$ |
| $12,399,940$ | $-18.8 \%$ |
| 0 | $-100.0 \%$ |
| 435,670 | $-46.2 \%$ |
| $4,455,024$ | $2.6 \%$ |
| $\mathbf{3 5 7 , 5 4 4 , 4 5 0}$ | $-50.4 \%$ |

$\%$ of Total Mkt. Exp. $9.6 \% \quad 4.4 \%$

|  | Estimated Credits Used Credit Utilization |  | $\begin{gathered} \text { 682,579,167 } \\ 94.7 \% \end{gathered}$ | Estimated Credits Used Credit Utilization |  | $\begin{gathered} 332,106,761 \\ 92.9 \% \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original | Ranges: |  |  | Relative |  |  |  |
| Group | Lower | Upper | Factor | Group | Lower | Upper | Factor |
| 0 | 0 | 0.05 | 0 | 0 | 0 | 0.035 | 0 |
| 1 | 0.05 | 0.08 | 1 | 1 | 0.035 | 0.065 | 1 |
| 2 | 0.08 | 0.11 | 1 | 2 | 0.065 | 0.095 | 1 |
| 3 | 0.11 | 0.17 | 1 | 3 | 0.095 | 0.155 | 1 |
| 4 | 0.17 | 0.23 | 1.25 | 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.23 | 0.29 | 1.5 | 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.29 | 0.35 | 1.75 | 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.35 | 0.41 | 2 | 7 | 0.335 | 0.395 | 2 |
| 8 | 0.41 | 0.47 | 2.25 | 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.47 | 1 | 2.5 | 9 | 0.455 | 1 | 2.5 |

1.34\% Current Residual Market Rate Using Data Through July, 2015
2.0\% Target Cession Rate From 2012 Division of Insurance Decision (Bulletin 953)
$5.0 \% \quad$ Residual Market rate Threshold Point, Credits were given for $5.0 \%$ and above (2012-2015)

## Relative Range Calculation:

1. Divide the actual overall residual market share by the target $(1.34 / 2.0)=.67$
2. Round the result from 1 . above to the nearest 10 th $=.7$
3. Multiply the result from 2. above by the original average residual market share threshold (. $7 \times .05$ ) $=3.5$
4. Use the same increment for bands as original methodology: .03 for first two bands, .06 for all remaining bands

| 4/1/2015 Credit Factors |  |  |  | 4/1/16 - Relative Ranges |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\triangle$ | Potential Credit Premium | \% $\Delta$ |
| 1 | 179,645 | 0 | 0 | 731 | 0.0\% | 1,362,061 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 1,088 | 0.0\% | 2,172,578 | 0.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 2,359 | 0.0\% | 4,903,494 | 0.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 | 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 2,321 | -82.8\% | 5,856,888 | -73.7\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 1,170 | -82.9\% | 3,042,268 | -74.6\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 1,622 | -82.0\% | 4,849,507 | -71.1\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 695 | -84.3\% | 2,087,562 | -75.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 | 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 7,252 | 0.0\% | 14,998,854 | 0.0\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 18,001 | 0.0\% | 26,373,177 | 0.0\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 5,444 | -19.5\% | 10,187,814 | -28.3\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,463 | -5.6\% | 4,855,514 | -12.7\% |
| 16 | 13,786 | 12,407 | 19,439,240 | 1,366 | -89.0\% | 3,689,684 | -81.0\% |
| 17 | 17,276 | 409 | 971,286 | 407 | -0.5\% | 405,839 | -58.2\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 13,844 | 0.0\% | 20,108,257 | -0.9\% |
| 19 | 15,574 | 511 | 1,386,654 | 830 | 62.5\% | 1,532,349 | 10.5\% |
| 20 | 17,998 | 14,796 | 23,214,158 | 15,128 | 2.2\% | 22,994,805 | -0.9\% |
| 21 | 47,453 | 46,303 | 93,336,130 | 45,926 | -0.8\% | 90,799,798 | -2.7\% |
| 22 | 15,082 | 15,082 | 32,284,144 | 14,711 | -2.5\% | 29,825,915 | -7.6\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 2,693 | -7.1\% | 6,033,531 | -18.9\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 466 | -63.3\% | 1,600,660 | -38.9\% |
| 25 | 16,590 | 509 | 1,431,503 | 153 | -70.1\% | 547,601 | -61.7\% |
| 26 | 21,365 | 1,639 | 4,353,093 | 1,341 | -18.2\% | 2,808,377 | -35.5\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 0 | -100.0\% | 0 | -100.0\% |
| 40 | 20,516 | 16,612 | 22,547,056 | 1,725 | -89.6\% | 2,945,328 | -86.9\% |
| 41 | 58,739 | 50,559 | 60,000,400 | 6,290 | -87.6\% | 10,858,788 | -81.9\% |
| 42 | 73,454 | 59,665 | 97,080,594 | 3,253 | -94.5\% | 6,041,919 | -93.8\% |
| 43 | 47,483 | 39,935 | 65,821,904 | 4,446 | -88.9\% | 9,660,727 | -85.3\% |
| 44 | 33,690 | 29,883 | 39,223,163 | 29,883 | 0.0\% | 37,504,512 | -4.4\% |
| 45 | 50,938 | 42,902 | 82,296,042 | 5,305 | -87.6\% | 16,279,883 | -80.2\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 196,243 | -54.3\% | 357,544,450 | -50.4\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 4.4\% |  |  |  |

Original Ranges:

| Group |  |
| :---: | :---: |
| 0 |  |
|  | 0 |
| 1 | 0.05 |
| 2 | 0.08 |
| 3 | 0.11 |
| 4 | 0.17 |
| 5 | 0.23 |
| 6 | 0.29 |
| 7 | 0.35 |
| 8 | 0.41 |
| 9 | 0.47 |


| Upper |
| :---: |
| $\mathbf{0 . 0 5}$ |
| 0.08 |
| 0.11 |
| 0.17 |
| 0.23 |
| 0.29 |
| 0.35 |
| 0.41 |
| 0.47 |
| 1 |


| Factor |
| :---: |
| 0 |
| 1 |
| 1 |
| 1 |
| 1.25 |
| 1.5 |
| 1.75 |
| 2 |
| 2.25 |
| 2.5 |

Relative Ranges:

| Group | $\frac{\text { Lower }}{0}$ |  | Upper |
| :---: | :---: | :---: | :---: |
| 0 | 0 | $\mathbf{0 . 0 3 5}$ | Factor |
| 1 | 0.035 | 0.065 | 0 |
| 2 | 0.065 | 0.095 | 1 |
| 3 | 0.095 | 0.155 | 1 |
| 4 | 0.155 | 0.215 | 1.25 |
| 5 | 0.215 | 0.275 | 1.5 |
| 6 | 0.275 | 0.335 | 1.75 |
| 7 | 0.335 | 0.395 | 2 |
| 8 | 0.395 | 0.455 | 2.25 |
| 9 | 0.455 | 1 | 2.5 |

Relative Range Methodology - PRAC Proposal
Summary by Rate Class
Two Year Projection Analysis - PRAC Proposal


Relative Ranges for each year are scaled to the original upper and lower bounds based on Relative MAIP Volume

| Territory | 4/1/2015 Credit Factors |  |  | 4/1/16 - Relative Ranges (PRAC Proposal) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\Delta$ | Potential Credit Premium | \% ${ }^{\text {a }}$ |
| 1 | 179,645 | 0 | 0 | 731 | 0.0\% | 1,362,061 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 1,088 | 0.0\% | 2,172,578 | 0.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 2,359 | 0.0\% | 4,903,494 | 0.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 0 | -100.0\% | 0 | -100.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 | 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 2,321 | -82.8\% | 5,856,888 | -73.7\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 6,854 | 0.0\% | 11,974,908 | 0.0\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 1,622 | -82.0\% | 4,849,507 | -71.1\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 4,433 | 0.0\% | 8,349,841 | 0.0\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 | 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 12,677 | 74.8\% | 15,929,118 | 6.2\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 20,804 | 15.6\% | 34,646,791 | 31.4\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 6,000 | -11.2\% | 12,662,016 | -10.9\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,463 | -5.6\% | 5,517,986 | -0.7\% |
| 16 | 13,786 | 12,407 | 19,439,240 | 12,269 | -1.1\% | 19,875,305 | 2.2\% |
| 17 | 17,276 | 409 | 971,286 | 714 | 74.6\% | 1,043,624 | 7.4\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 13,844 | 0.0\% | 20,459,296 | 0.9\% |
| 19 | 15,574 | 511 | 1,386,654 | 830 | 62.5\% | 1,895,553 | 36.7\% |
| 20 | 17,998 | 14,796 | 23,214,158 | 15,128 | 2.2\% | 24,249,539 | 4.5\% |
| 21 | 47,453 | 46,303 | 93,336,130 | 46,814 | 1.1\% | 98,559,886 | 5.6\% |
| 22 | 15,082 | 15,082 | 32,284,144 | 14,830 | -1.7\% | 32,669,867 | 1.2\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 2,918 | 0.7\% | 6,588,535 | -11.4\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 466 | -63.3\% | 1,600,660 | -38.9\% |
| 25 | 16,590 | 509 | 1,431,503 | 419 | -17.8\% | 875,630 | -38.8\% |
| 26 | 21,365 | 1,639 | 4,353,093 | 1,583 | -3.4\% | 3,812,214 | -12.4\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 0 | -100.0\% | 0 | -100.0\% |
| 40 | 20,516 | 16,612 | 22,547,056 | 1,949 | -88.3\% | 3,927,036 | -82.6\% |
| 41 | 58,739 | 50,559 | 60,000,400 | 6,290 | -87.6\% | 11,626,491 | -80.6\% |
| 42 | 73,454 | 59,665 | 97,080,594 | 5,897 | -90.1\% | 14,214,239 | -85.4\% |
| 43 | 47,483 | 39,935 | 65,821,904 | 4,446 | -88.9\% | 11,491,964 | -82.5\% |
| 44 | 33,690 | 29,883 | 39,223,163 | 29,883 | 0.0\% | 39,223,163 | 0.0\% |
| 45 | 50,938 | 42,902 | 82,296,042 | 5,305 | -87.6\% | 18,821,135 | -77.1\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 230,266 | -46.4\% | 432,376,083 | -40.0\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 5.1\% |  |  |  |

Summary for Key Territories cited by the Division of Insurance

| Total 400,504 | 329,783 | $539,595,923$ | 144,394 | $-56.2 \%$ | $278,470,839$ | $-48.4 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

# Commonwealth Automobile Reinsurers 

| Current Formulaic Methodology |  |  |  | Relative Range |  |  |  | PRAC Proposal (Relative) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Potential Cred | July | May |  | Potential Cred | July | May |  | Potential Cred | July | May |
|  | Eligible Exp | 113,620 | 112,815 |  | Eligible Exp | 332,204 | 329,286 |  | Eligible Exp | 438,496 | 421,103 |
|  | \% Total | 2.5\% | 2.5\% |  | \% Total | 7.4\% | 7.4\% |  | \% Total | 9.8\% | 9.4\% |
|  | Potential Prem | 259.7 M | 258.4 M |  | Potential Prem | 566.1 M | 562.1 M |  | Potential Prem | 733.8 M | 705.7 M |
|  | Indicated $\Delta$ : |  |  |  | Indicated $\Delta$ : |  |  |  | Indicated $\Delta$ : |  |  |
|  | $\Delta$ Exposures | -73.5\% | -73.6\% |  | $\Delta$ Exposures | -22.6\% | -22.8\% |  | $\Delta$ Exposures | 2.1\% | -1.3\% |
|  | $\Delta$ Premium | -64.0\% | -64.0\% |  | $\Delta$ Premium | -21.4\% | -21.7\% |  | $\Delta$ Premium | 1.8\% | -1.6\% |
|  | Cells With Credit | 74 | 73 |  | Cells With Credit | 126 | 124 |  | Clls With Credit | 127 | 110 |
| Factor | Lower | Upper | Group | Factor | Lower | Upper | Group | Factor | Lower | Upper | Group |
| 0 | 0 | 0.050 | 0 | 0 | 0 | 0.035 | 0 | 0 | 0.00 | 0.03 | 0 |
| 1 | 0.050 | 0.080 | 1 | 1 | 0.035 | 0.065 | 1 | 1 | 0.03 | 0.04 | 1 |
| 1 | 0.080 | 0.110 | 2 | 1 | 0.065 | 0.095 | 2 | 1 | 0.04 | 0.06 | 2 |
| 1 | 0.110 | 0.170 | 3 | 1 | 0.095 | 0.155 | 3 | 1 | 0.06 | 0.09 | 3 |
| 1.25 | 0.170 | 0.230 | 4 | 1.25 | 0.155 | 0.215 | 4 | 1.25 | 0.09 | 0.12 | 4 |
| 1.5 | 0.230 | 0.290 | 5 | 1.5 | 0.215 | 0.275 | 5 | 1.5 | 0.12 | 0.16 | 5 |
| 1.75 | 0.290 | 0.350 | 6 | 1.75 | 0.275 | 0.335 | 6 | 1.75 | 0.16 | 0.19 | 6 |
| 2 | 0.350 | 0.410 | 7 | 2 | 0.335 | 0.395 | 7 | 2 | 0.19 | 0.22 | 7 |
| 2.25 | 0.410 | 0.470 | 8 | 2.25 | 0.395 | 0.455 | 8 | 2.25 | 0.22 | 0.25 | 8 |
| 2.5 | 0.470 | 1 | 9 | 2.5 | 0.455 | 1 | 9 | 2.5 | 0.25 | 1.00 | 9 |
| 2 Year | Look Forward Indicated $\Delta$ : |  |  | 2 Year | ook Forward Indicated $\Delta$ : |  |  | 2 Year | ook Forward Indicated $\Delta$ : |  |  |
|  | $\Delta$ Exposures | -77.7\% |  |  | $\Delta$ Exposures | -54.3\% |  |  | $\Delta$ Exposures | -46.4\% |  |
|  | $\Delta$ Premium | -68.8\% |  |  | $\Delta$ Premium | -50.4\% |  |  | $\Delta$ Premium | -40.0\% |  |
| Key Territories Cited By DOI $\Delta$ : |  |  |  | Key Territories Cited By DOI: |  |  |  | Key Territories Cited By DOI: |  |  |  |
|  | $\Delta$ Exposures | -76.1\% |  |  | $\Delta$ Exposures | -35.1\% |  |  | $\Delta$ Exposures | 0.1\% |  |
|  | $\Delta$ Premium | -68.1\% |  |  | $\Delta$ Premium | -32.1\% |  |  | $\Delta$ Premium | 0.5\% |  |

# Commonwealth Automobile Reinsurers <br> Voluntary 3 Year Loss Ratio (CAR ID 8) <br> Data through March, 2015 Excluding Progressive 

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 57.59\% | 69.65\% | 70.23\% | 55.77\% | 60.16\% | 49.82\% | 65.48\% | 46.61\% | 60.51\% | 33.49\% | 59.24\% |
| 2 | 58.18\% | 71.06\% | 71.16\% | 52.65\% | 61.92\% | 60.75\% | 59.05\% | 51.14\% | 62.38\% | 32.05\% | 59.73\% |
| 3 | 59.81\% | 66.73\% | 63.89\% | 61.16\% | 64.68\% | 49.56\% | 59.99\% | 53.00\% | 61.68\% | 34.48\% | 60.18\% |
| 4 | 61.00\% | 69.07\% | 61.34\% | 54.72\% | 67.33\% | 62.81\% | 62.55\% | 50.36\% | 59.03\% | 39.21\% | 61.36\% |
| 5 | 61.85\% | 66.59\% | 67.83\% | 66.52\% | 51.49\% | 55.43\% | 60.44\% | 53.50\% | 64.88\% | 39.98\% | 61.90\% |
| 6 | 59.74\% | 71.07\% | 64.40\% | 65.86\% | 57.76\% | 54.16\% | 56.63\% | 48.46\% | 61.04\% | 38.78\% | 60.54\% |
| 7 | 59.84\% | 67.82\% | 64.92\% | 55.49\% | 57.26\% | 47.38\% | 61.07\% | 53.76\% | 61.82\% | 34.93\% | 60.39\% |
| 8 | 61.62\% | 70.72\% | 62.78\% | 55.26\% | 61.62\% | 55.64\% | 64.71\% | 53.52\% | 63.58\% | 43.23\% | 62.28\% |
| 9 | 61.52\% | 65.30\% | 63.11\% | 68.38\% | 57.70\% | 51.38\% | 62.63\% | 55.90\% | 66.97\% | 32.82\% | 61.51\% |
| 10 | 61.59\% | 72.57\% | 58.92\% | 54.94\% | 70.22\% | 74.08\% | 66.02\% | 48.50\% | 55.90\% | 30.89\% | 62.14\% |
| 11 | 56.56\% | 81.21\% | 54.70\% | 59.44\% | 54.58\% | 59.28\% | 47.92\% | 41.48\% | 53.07\% | 45.95\% | 58.86\% |
| 12 | 60.89\% | 70.16\% | 58.97\% | 58.97\% | 58.52\% | 55.02\% | 61.25\% | 52.53\% | 63.27\% | 51.19\% | 61.47\% |
| 13 | 66.74\% | 75.91\% | 61.88\% | 60.46\% | 62.74\% | 59.61\% | 67.64\% | 57.70\% | 68.48\% | 37.62\% | 66.75\% |
| 14 | 67.10\% | 70.61\% | 62.69\% | 58.63\% | 68.76\% | 48.09\% | 71.59\% | 55.01\% | 59.35\% | 80.45\% | 66.81\% |
| 15 | 65.13\% | 67.90\% | 58.71\% | 53.48\% | 74.73\% | 73.20\% | 78.48\% | 71.32\% | 72.25\% | 65.51\% | 65.75\% |
| 16 | 65.75\% | 62.70\% | 58.12\% | 60.57\% | 58.76\% | 60.26\% | 61.24\% | 79.12\% | 70.57\% | 32.31\% | 64.54\% |
| 17 | 62.39\% | 76.41\% | 68.47\% | 53.68\% | 107.91\% | 30.44\% | 68.77\% | 46.95\% | 87.81\% | 32.44\% | 64.21\% |
| 18 | 68.33\% | 72.70\% | 60.85\% | 81.09\% | 108.39\% | 39.31\% | 77.54\% | 61.01\% | 65.78\% | 51.35\% | 68.85\% |
| 19 | 49.81\% | 64.29\% | 60.03\% | 86.51\% | 75.73\% | 45.02\% | 58.62\% | 64.79\% | 25.92\% | 37.21\% | 52.08\% |
| 20 | 74.06\% | 77.45\% | 62.10\% | 90.07\% | 111.36\% | 67.43\% | 75.22\% | 54.36\% | 68.62\% | 48.34\% | 74.21\% |
| 21 | 73.20\% | 72.94\% | 76.39\% | 64.44\% | 76.72\% | 88.08\% | 74.58\% | 75.74\% | 52.54\% | 87.10\% | 73.40\% |
| 22 | 75.71\% | 78.66\% | 64.19\% | 86.68\% | 77.77\% | 63.41\% | 78.88\% | 47.26\% | 30.45\% | 105.03\% | 74.98\% |
| 23 | 52.85\% | 74.23\% | 68.82\% | 55.62\% | 71.40\% | 57.55\% | 54.14\% | 46.51\% | 44.04\% | 28.83\% | 55.48\% |
| 24 | 53.95\% | 76.31\% | 50.78\% | 58.82\% | 40.98\% | 46.75\% | 61.15\% | 55.49\% | 68.93\% | 28.20\% | 54.92\% |
| 25 | 46.49\% | 61.50\% | 74.44\% | 46.79\% | 75.63\% | 28.54\% | 38.53\% | 48.15\% | 57.01\% | 31.03\% | 48.17\% |
| 26 | 55.88\% | 79.46\% | 67.55\% | 67.73\% | 58.71\% | 35.17\% | 86.26\% | 71.97\% | 53.39\% | 45.75\% | 58.60\% |
| 27 | 59.64\% | 63.65\% | 64.33\% | 61.25\% | 59.54\% | 57.34\% | 61.61\% | 56.92\% | 57.49\% | 27.54\% | 59.58\% |
| 40 | 56.09\% | 63.56\% | 52.55\% | 54.87\% | 50.99\% | 63.61\% | 70.40\% | 45.82\% | 47.90\% | 37.34\% | 56.60\% |
| 41 | 57.85\% | 63.81\% | 57.87\% | 58.67\% | 62.72\% | 59.38\% | 57.70\% | 55.54\% | 81.60\% | 35.95\% | 58.39\% |
| 42 | 64.94\% | 68.77\% | 63.37\% | 67.29\% | 74.61\% | 63.05\% | 72.44\% | 61.69\% | 54.00\% | 45.38\% | 65.36\% |
| 43 | 68.88\% | 63.64\% | 71.66\% | 58.75\% | 59.89\% | 79.14\% | 57.28\% | 57.80\% | 70.35\% | 31.28\% | 67.31\% |
| 44 | 69.97\% | 81.78\% | 60.67\% | 74.49\% | 67.71\% | 56.18\% | 67.12\% | 58.02\% | 44.18\% | 32.62\% | 69.05\% |
| 45 | 78.93\% | 73.85\% | 82.78\% | 74.53\% | 115.44\% | 73.80\% | 87.05\% | 74.70\% | 50.37\% | 34.80\% | 78.92\% |
| 99 | 73.37\% | 64.77\% | 52.95\% | 64.26\% | 25.65\% | 62.17\% | 43.73\% | 51.97\% | 54.37\% | 55.79\% | 61.63\% |
| Total | 61.60\% | 69.14\% | 64.20\% | 60.76\% | 64.39\% | 57.28\% | 61.78\% | 52.94\% | 61.16\% | 37.66\% | 61.98\% |

Notes:
(1) Earned Premium : reflects policies effective April 2012 - March 2015 valued at March, 2015
(2) Reported Incurred Losses: reflects policies effective April 2012 - March 2015 valued at March, 2015

# Commonwealth Automobile Reinsurers <br> MAIP <br> 3 Years Loss Ratio data through March, 2015 

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 75.17\% | 152.42\% | 110.97\% | 86.80\% | 126.81\% | 44.10\% | 37.42\% | 25.13\% | 85.81\% | 163.66\% | 83.16\% |
| 2 | 82.08\% | 84.63\% | 80.29\% | 30.06\% | 50.07\% | 33.46\% | 111.05\% | 8.85\% | 64.62\% | 93.76\% | 80.69\% |
| 3 | 86.46\% | 139.37\% | 86.88\% | 105.48\% | 57.50\% | 95.27\% | 84.00\% | 48.40\% | 53.25\% | 120.40\% | 87.55\% |
| 4 | 92.66\% | 92.36\% | 67.54\% | 37.56\% | 57.74\% | 92.22\% | 68.01\% | 59.31\% | 144.95\% | 103.85\% | 87.24\% |
| 5 | 84.32\% | 144.85\% | 65.25\% | 65.66\% | 63.46\% | 118.35\% | 78.42\% | 69.87\% | 115.30\% | 66.82\% | 83.03\% |
| 6 | 81.24\% | 99.67\% | 74.64\% | 97.19\% | 73.09\% | 29.28\% | 54.97\% | 79.57\% | 65.75\% | 78.65\% | 79.36\% |
| 7 | 86.43\% | 115.57\% | 66.44\% | 65.89\% | 68.65\% | 63.06\% | 67.87\% | 48.60\% | 80.05\% | 171.83\% | 84.71\% |
| 8 | 86.45\% | 97.10\% | 87.20\% | 47.67\% | 74.94\% | 59.82\% | 63.74\% | 83.42\% | 112.13\% | 80.18\% | 85.10\% |
| 9 | 83.99\% | 81.25\% | 75.94\% | 103.88\% | 97.07\% | 87.97\% | 30.32\% | 86.96\% | 34.84\% | 94.26\% | 82.05\% |
| 10 | 78.84\% | 41.04\% | 65.48\% | 25.81\% | 61.92\% | 116.58\% | 63.51\% | 170.07\% | 102.10\% | 125.56\% | 76.83\% |
| 11 | 94.06\% | 55.22\% | 70.91\% | 115.33\% | 93.45\% | 67.59\% | 46.39\% | 15.76\% | 77.42\% | 79.54\% | 87.13\% |
| 12 | 85.02\% | 81.91\% | 85.50\% | 125.45\% | 67.20\% | 56.20\% | 110.53\% | 91.45\% | 148.17\% | 95.79\% | 85.57\% |
| 13 | 83.40\% | 115.07\% | 73.24\% | 93.88\% | 68.01\% | 63.79\% | 67.35\% | 58.73\% | 46.65\% | 88.22\% | 81.99\% |
| 14 | 84.23\% | 80.92\% | 82.98\% | 60.42\% | 72.73\% | 85.80\% | 73.00\% | 11.68\% | 91.96\% | 148.41\% | 82.93\% |
| 15 | 85.37\% | 86.52\% | 51.20\% | 31.19\% | 58.93\% | 104.94\% | 42.86\% | 63.91\% | 96.69\% | 95.39\% | 78.53\% |
| 16 | 81.96\% | 45.35\% | 43.96\% | 0.00\% | 44.18\% | 40.23\% | 156.60\% | 0.00\% | 25.37\% | 116.65\% | 70.85\% |
| 17 | 80.85\% | 93.53\% | 148.97\% | 160.47\% | 28.20\% | 41.55\% | 31.47\% | 22.55\% | 157.44\% | 93.37\% | 86.14\% |
| 18 | 113.47\% | 97.52\% | 76.08\% | 54.48\% | 69.65\% | 3.62\% | 35.71\% | 48.30\% | 39.63\% | 375.36\% | 104.04\% |
| 19 | 102.18\% | 69.48\% | 61.47\% | 13.32\% | 156.82\% | 6.33\% | 55.99\% | 0.00\% | 14.73\% | 115.47\% | 97.99\% |
| 20 | 109.12\% | 206.07\% | 102.25\% | 236.25\% | 78.39\% | 54.12\% | 85.80\% | 93.24\% | 119.00\% | 72.05\% | 109.65\% |
| 21 | 90.26\% | 94.27\% | 90.25\% | 87.31\% | 86.99\% | 104.47\% | 118.33\% | 24.30\% | 41.69\% | 191.06\% | 90.90\% |
| 22 | 85.13\% | 96.66\% | 89.32\% | 118.20\% | 103.84\% | 149.58\% | 43.60\% | 346.44\% | 16.30\% | 64.11\% | 88.77\% |
| 23 | 104.50\% | 127.54\% | 39.82\% | 329.52\% | 69.66\% | 186.47\% | 57.90\% | 33.41\% | 124.19\% | 216.51\% | 98.91\% |
| 24 | 93.14\% | 110.46\% | 56.27\% | 11.42\% | 55.31\% | 85.15\% | 189.63\% | 84.14\% | 82.05\% | 261.89\% | 90.34\% |
| 25 | 70.55\% | 67.70\% | 108.59\% | 74.85\% | 96.55\% | 62.33\% | 8.03\% | 0.00\% | 0.00\% | 270.79\% | 75.28\% |
| 26 | 68.82\% | 207.86\% | 56.09\% | 140.64\% | 76.38\% | 6.07\% | 133.40\% | 37.65\% | 339.15\% | 82.75\% | 77.74\% |
| 27 | 75.93\% | 94.01\% | 92.17\% | 106.70\% | 84.37\% | 154.17\% | 61.69\% | 64.87\% | 96.34\% | 49.11\% | 78.82\% |
| 40 | 68.55\% | 104.34\% | 57.66\% | 9.23\% | 75.36\% | 20.96\% | 37.99\% | 401.38\% | 74.41\% | 80.56\% | 69.46\% |
| 41 | 68.09\% | 148.35\% | 44.75\% | 67.00\% | 57.93\% | 65.93\% | 106.51\% | 72.76\% | 10.82\% | 104.59\% | 67.54\% |
| 42 | 86.96\% | 134.01\% | 61.70\% | 66.85\% | 96.32\% | 17.84\% | 55.64\% | 208.66\% | 97.54\% | 155.28\% | 88.93\% |
| 43 | 87.26\% | 181.69\% | 48.34\% | 34.02\% | 77.42\% | 86.34\% | 101.28\% | 38.13\% | 0.00\% | 200.35\% | 86.30\% |
| 44 | 65.43\% | 92.65\% | 49.82\% | 129.30\% | 72.77\% | 49.57\% | 86.29\% | 66.25\% | 1.09\% | 157.52\% | 66.91\% |
| 45 | 109.14\% | 104.07\% | 128.08\% | 126.30\% | 144.44\% | 153.27\% | 95.53\% | 159.07\% | 86.24\% | 103.88\% | 115.18\% |
| 99 | 151.58\% | 255.30\% | 36.54\% | 549.70\% | 0.00\% | 0.00\% | 63.79\% | 0.00\% | 76.82\% | 0.00\% | 111.99\% |
| Total | 85.64\% | 107.59\% | 75.53\% | 88.00\% | 78.75\% | 77.84\% | 72.91\% | 70.60\% | 88.58\% | 113.15\% | 84.98\% |

Notes:
Residual Market Share is $>=2$ and $<3$ times of statewide average
Residual Market Share is $>=3$ and $<4$ times of statewide average
Residual Market Share is $>=4$ and $<5$ times of statewide average
Residual Market Share is $>5$ times of statewide average
प्MWMWMWM/n 2014 Credit Eligible


President

## RECORDS OF MEETING

## ACTUARIAL COMMITTEE - OCTOBER 7, 2015

## Members Present

Mr. Joseph F. Cofield - Chair<br>Mr. Geoffrey H. Arnold<br>Mr. Jonathan E. Blake<br>Mr. Alex F. Butensky<br>Mr. Christopher Dupill<br>Mr. Glenn R. Hiltpold<br>Mr. John V. Kelly<br>Mr. Michael Petrarca, Jr.<br>Ms. Lynellen Ramirez<br>Mr. John P. Tierney<br>Ms. Meredith M. Woodcock

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

Substituted for:
N/A

Not in Attendance:
N/A

### 15.01 Records of Previous Meeting

The Committee unanimously voted to approve the Records of the Actuarial Committee meeting of September 2, 2015. The Records have been distributed and are on file with CAR’s Secretary.

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

CAR Counsel, Mr. Matthew Henning, advised the Committee relative to the conflict of interest policy recently adopted by the Governing Committee. He noted that a question had been raised regarding the discussion of credits by those members engaging in the buying and selling of excess credits. Mr. Henning explained that all Members share a common financial interest in participating in the residual market, although each company will employ its unique business model to fulfill its residual market obligation. While company members may opt to disclose whether they engage in the transfer of excess credits, they are not precluded from discussion and vote on the credit offer.

The Committee then continued discussion regarding an April 1, 2016 credit offer by considering several alternative credit models as follows:

- The current methodology as codified in Rule 29: Staff updated this model using data reported through July 2015. This model currently projects a $74 \%$ reduction in credit eligible exposures and $64 \%$ reduction in available credit premium.
- Relative Range Methodology: This model, which was presented at the September 2 meeting, estimates $23 \%$ reduction in credit eligible exposures and $21 \%$ reduction in available credit premium.
- Plymouth Rock Assurance Corporation (PRAC) Proposal: This model was modified slightly by PRAC subsequent to the September 2 meeting to apply the adjusted market-need threshold to all 3 years underlying the credit indication. The model estimates a $2.1 \%$ increase in credit eligible exposures and a $1.8 \%$ reduction in available credit premium.
- Allstate Proposal: Mr. Hall Crowder presented a model that retains the algorithm of the current methodology and introduces a transition period of 2 to 4 years such that a credit factor of 1.0 is reduced by a fraction in instances where a credit is indicated to be eliminated.
- Hanover Proposal: Mr. Jonathan Blake presented a proposal which considers the residual market loss ratio of cells which are otherwise indicated to eliminate credit eligibility.

Mr. Geoffrey Arnold distributed a memorandum discussing the goal of keep out credits, the volume of such credits in the quota share model, and his proposed benchmark for determining the threshold for disproportionate representation in the residual market. Mr. Arnold emphasized that a recommended credit offer should ensure the continuation of credits in the eleven territories noted by the Commissioner of Insurance in two previous credit decisions.

In discussing the proposals, several members favored the original formulaic approach, suggesting that its use of three year results is sufficiently self-correcting and addresses concern about potential repopulation of those cells indicated for elimination of credit. Those members also suggested that the continued depopulation is driven more by the competitive market than by the available credits, and argued that companies will actively compete for business in those areas.

Other members noted the marked depopulation of the residual market since 2009 and expressed concern that certain cells will repopulate due to the elimination of credits. Some suggested that while the formula is self-correcting, it is disruptive. Those members noted that the Allstate proposal to transition the elimination of credit would avoid market disruption and allow for reevaluation after one year.

Most committee members agreed that the Relative Range model identified a reasonable residual market threshold, and allowed for a substantive decrease in credit eligible premium while minimizing the number of impacted cells. Mr. Arnold, however, continued to express concern that this model eliminates credits in territories previously noted as areas of interest by the Commissioner of Insurance. After considerable discussion, the Committee voted with 8 members in favor and 2 opposed (PRAC and Liberty Mutual) to recommend adoption of the Relative Range credit model.

The Committee directed staff to draft amendments to the factor tables included in Rule 29 using data reported through August 2015 and to present Rule 29 to the Governing Committee for consideration at its November 2015 meeting.


TIMOTHY F. GALLIGAN
Financial Services Coordinator

Boston, Massachusetts
November 6, 2015

# ATTACHMENT LISTING 

Docket \#AC15.02, Exhibit \#3
Docket \#AC15.03, Exhibit \#25
Docket \#AC15.03, Exhibit \#26
Docket \#AC15.03, Exhibit \#27

Attendance Listing
Allstate Credit Model Proposal
Hanover Credit Proposal
PRAC Keep-Out Credit Memorandum



10/5/2015
Members of the CAR Actuarial Committee:

In the near future, your committee will recommend a credit structure for 2016 that attempts to balance the success of an increasingly depopulated residual market against the instability that rapid change could bring. The balance point is not obvious and several scenarios have been raised as an alternative to the indicated math which suggests that a mitigated approach is desired by several committee members.

Over the last few years, the application of the algorithmic structure proposed by the DOI (Bulletin 953) has resulted in a steady reduction of credits in the approximate range of 5-10\% each year as the residual market share has diminished. By and large, it appears the market has been able to absorb changes of this magnitude without harm to the overall market: residual market continues to shrink and new assignments have remained at volumes near historic lows. In short, the program has worked.

One especially attractive element to the DOI algorithm that has been understated in recent discussions is how one is able to predict with some confidence where the direction of credits will go in the future. This predictive element is essential to providing a stable market that encourages companies, agents, regulators, and other interested parties to deploy tactics and strategies that help ensure a small residual market over time. Any new method considered by the Committee should be evaluated in this context.

To that end, and having considered all that has been raised publicly to date, Allstate would suggest the committee consider retaining the predictable structure already in place but temper the rate of falloff in recognition that modest decreases in recent history have resulted in a gradually reduced residual market. The following is proposed for consideration:

- Retain the DOI algorithm as the foundational algorithm as it has proven its ability to provide a transparent, stable and predictable platform for managing credits...i.e....retain the $5 \%$ residual market share threshold ( $2 \%$ target +1 standard deviation equating to $3 \%$ )
- With respect to 1 ) introducing a credit, 2) increasing credits where a credit already exists, and 3) lowering a credit to 1.0 from a higher value, the current application of the algorithm would continue to apply.
- With respect to removing a 1.0 credit completely, the indication would be considered a "trigger" that begins a removal of the credit at a steady, defined path so as to completely remove the credit in a period of time to be determined by the committee. For examples:
o A three year fall off would result in credits of 0.67 in year one, 0.33 in year two, and 0.0 in year three
o A four year fall off would result in credits of 0.75 in year one, 0.50 in year two, 0.25 in year three, and 0.0 in year four

Once triggered and on the defined path, the credit would continue to decline unless the conditions for reinstating a credit are met, at which point the credit would be reintroduce at 1.0.

- The responsibility of the committee is as simple as agreeing to the number of years that a credit would fall off once triggered for removal.

Based on the latest data evaluation from CAR, applying this procedure over several first-year falloff rates would yield the following results:

| Falloff <br> Scenario | Applied <br> Factor | Exposure <br> Weighted | Premium <br> Weighted |
| :--- | :---: | :---: | :---: |
| DOI Method | $\mathrm{n} / \mathrm{a}$ | $-73.5 \%$ | $-64.0 \%$ |
| 2-year falloff | -0.50 | $0.0 \%$ | $-32.6 \%$ |
| 3-year falloff | -0.33 | $0.0 \%$ | $-21.9 \%$ |
| 4-year falloff | -0.25 | $0.0 \%$ | $-17.0 \%$ |
| 5-year falloff | -0.20 | $0.0 \%$ | $-13.8 \%$ |

[^18]Thank you.

Hall D. Crowder
Allstate

Hanover Proposal


## 4/1/2015 Credit Factors

4/1/16 - Residual Market Share Group

| Territory | Total Mkt Exposures | Credit Eligible Exposures | Potential Credit Premium | Credit Eligible Exposures | \% $\triangle$ | Potential Credit Premium | \% 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 179,645 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| 2 | 241,632 | 1,088 | 2,172,578 | 1,088 | 0.0\% | 2,172,578 | 0.0\% |
| 3 | 519,011 | 2,359 | 4,903,494 | 2,359 | 0.0\% | 4,903,494 | 0.0\% |
| 4 | 329,650 | 1,349 | 3,191,218 | 1,349 | 0.0\% | 3,191,218 | 0.0\% |
| 5 | 505,909 | 3,011 | 6,732,095 | 3,011 | 0.0\% | 6,732,095 | 0.0\% |
| 6 | 338,514 | 1,684 | 4,373,882 | 1,684 | 0.0\% | 4,373,882 | 0.0\% |
| 7 | 347,953 | 13,473 | 22,263,296 | 13,473 | 0.0\% | 22,263,296 | 0.0\% |
| 8 | 198,946 | 6,854 | 11,974,908 | 6,854 | 0.0\% | 11,974,908 | 0.0\% |
| 9 | 198,113 | 8,998 | 16,805,659 | 8,281 | -8.0\% | 15,452,882 | -8.0\% |
| 10 | 95,743 | 4,433 | 8,349,841 | 1,022 | -77.0\% | 2,777,501 | -66.7\% |
| 11 | 72,383 | 635 | 2,110,782 | 635 | 0.0\% | 2,110,782 | 0.0\% |
| 12 | 194,206 | 7,252 | 14,998,854 | 1,701 | -76.6\% | 5,091,667 | -66.1\% |
| 13 | 210,052 | 18,001 | 26,373,177 | 11,394 | -36.7\% | 25,110,917 | -4.8\% |
| 14 | 72,381 | 6,759 | 14,216,143 | 6,203 | -8.2\% | 12,788,372 | -10.0\% |
| 15 | 25,613 | 2,608 | 5,559,235 | 2,608 | 0.0\% | 5,559,235 | 0.0\% |
| 16 | 13,786 | 12,407 | 19,439,240 | 12,407 | 0.0\% | 19,439,240 | 0.0\% |
| 17 | 17,276 | 409 | 971,286 | 409 | 0.0\% | 971,286 | 0.0\% |
| 18 | 16,051 | 13,844 | 20,283,776 | 13,760 | -0.6\% | 20,067,001 | -1.1\% |
| 19 | 15,574 | 511 | 1,386,654 | 447 | -12.6\% | 1,222,766 | -11.8\% |
| 20 | 17,998 | 14,796 | 23,214,158 | 14,796 | 0.0\% | 23,214,158 | 0.0\% |
| 21 | 47,453 | 46,303 | 93,336,130 | 46,303 | 0.0\% | 93,336,130 | 0.0\% |
| 22 | 15,082 | 15,082 | 32,284,144 | 14,952 | -0.9\% | 31,981,542 | -0.9\% |
| 23 | 45,098 | 2,898 | 7,436,636 | 2,006 | -30.8\% | 6,544,321 | -12.0\% |
| 24 | 24,791 | 1,271 | 2,618,743 | 643 | -49.4\% | 2,151,987 | -17.8\% |
| 25 | 16,590 | 509 | 1,431,503 | 463 | -9.1\% | 1,284,515 | -10.3\% |
| 26 | 21,365 | 1,639 | 4,353,093 | 1,500 | -8.5\% | 3,344,133 | -23.2\% |
| 27 | 412,141 | 1,664 | 2,905,935 | 1,664 | 0.0\% | 2,905,935 | 0.0\% |
| 40 | 20,516 | 16,612 | 22,547,056 | 1,725 | -89.6\% | 2,945,328 | -86.9\% |
| 41 | 58,739 | 50,559 | 60,000,400 | 4,007 | -92.1\% | 8,467,491 | -85.9\% |
| 42 | 73,454 | 59,665 | 97,080,594 | 59,665 | 0.0\% | 97,080,594 | 0.0\% |
| 43 | 47,483 | 39,935 | 65,821,904 | 38,557 | -3.5\% | 65,501,264 | -0.5\% |
| 44 | 33,690 | 29,883 | 39,223,163 | 29,503 | -1.3\% | 38,373,791 | -2.2\% |
| 45 | 50,938 | 42,902 | 82,296,042 | 42,902 | 0.0\% | 82,296,042 | 0.0\% |
| 99 | 12,368 | 0 | 0 | 0 | 0.0\% | 0 | 0.0\% |
| Total | 4,490,140 | 429,395 | 720,655,617 | 347,371 | -19.1\% | 625,630,349 | -13.2\% |
| \% of Total Mkt. Exp. |  | 9.6\% |  | 7.7\% |  |  |  |


| Residual <br> Mark Share <br> Group | Keep <br> Out <br> Credits |
| :---: | :---: |
| 0 | 0.00 |
| 1 | 1.00 |
| 2 | 1.00 |
| 3 | 1.00 |
| 4 | 1.25 |
| 5 | 1.50 |
| 6 | 1.75 |
| 7 | 2.00 |
| 8 | 2.25 |
| 9 | 2.50 |

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 10

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.17\% | 0.90\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.19\% | 0.92\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.45\% | 1.06\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.27\% | 0.98\% | 0.79\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.91\% | 1.44\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.91\% | 1.46\% | 1.15\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.46\% | 1.81\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 2.25\% | 1.64\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.87\% | 2.03\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.92\% | 2.18\% | 1.71\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.99\% | 1.51\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.50\% | 1.93\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 4.32\% | 3.11\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.84\% | 2.79\% | 2.30\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.35\% | 2.67\% | 2.11\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 6.39\% | 4.97\% | 3.44\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 2.20\% | 1.81\% | 1.70\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.22\% | 4.24\% | 3.74\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.68\% | 3.20\% | 2.65\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 6.23\% | 4.87\% | 4.63\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 7.66\% | 5.93\% | 5.14\% | 1 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.85\% | 6.82\% | 5.74\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - | 2016 | 370,345,678 | 235,491 |
| 23 | 3.63\% | 2.49\% | 1.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.15\% | 1.75\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 439,287,056 | 294,536 |
| 25 | 2.15\% | 1.50\% | 1.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 3.65\% | 2.47\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.93\% | 0.77\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 7.63\% | 4.08\% | 2.65\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(68,941,379)$ | $(59,046)$ |
| 41 | 5.88\% | 3.11\% | 2.48\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 6.48\% | 4.37\% | 2.74\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 5.28\% | 3.09\% | 2.44\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 7.95\% | 4.99\% | 4.32\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | -15.7\% | -20.0\% |
| 45 | 6.64\% | 3.49\% | 2.79\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.70\% | 0.56\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.45\% | 1.77\% | 1.39\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 15

|  | Residual Market Share |  |  | Indicated | Mkt Sha | Range | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  |  |  |
| 1 | 0.32\% | 0.27\% | 0.29\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.29\% | 0.29\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.38\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.30\% | 0.29\% | 0.26\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.44\% | 0.38\% | 0.32\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.58\% | 0.53\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.56\% | 0.46\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.78\% | 0.67\% | 0.60\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.78\% | 0.63\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 0.71\% | 0.62\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.12\% | 0.88\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 0.88\% | 0.86\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 1.46\% | 1.17\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.65\% | 1.32\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 1.42\% | 1.43\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 2.97\% | 2.27\% | 2.07\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 0.79\% | 0.76\% | 0.91\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 2.45\% | 2.07\% | 1.93\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.18\% | 2.18\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 2.70\% | 2.39\% | 2.57\% | 0 | 0 | 0 | 0 | - | - | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 5.32\% | 4.42\% | 4.20\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 8.10\% | 6.62\% | 5.59\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - | 2016 | -10,951,878 | 8,165 |
| 23 | 2.82\% | 1.98\% | 1.40\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 2.99\% | 2.98\% | 2.47\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 10,951,878 | 8,165 |
| 25 | 1.73\% | 1.28\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 1.99\% | 1.56\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.26\% | 0.24\% | 0.20\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 2.44\% | 1.80\% | 0.95\% | 0 | 0 | 0 | 0 | - | - | - |  | - | - |
| 41 | 1.68\% | 1.28\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 3.10\% | 3.10\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 1.59\% | 1.06\% | 0.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 3.16\% | 2.11\% | 1.97\% | 0 | 0 | 0 | 0 | - | - | - |  | 0.0\% | 0.0\% |
| 45 | 2.38\% | 1.83\% | 1.45\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.36\% | 0.26\% | 0.19\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.73\% | 0.62\% | 0.53\% |  |  |  |  |  |  |  |  |  |  |

*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 - 4/1/2016 Credit Offer
Indicated Private Passenger Auto Residual Market Share Group - Operator Class 17

|  |  | Residual Market Share |  | Indicate | Mkt Sha | Range | Selected Range* | $2016$ <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 3.25\% | 2.47\% | 2.04\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.96\% | 2.03\% | 1.95\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 4.05\% | 2.61\% | 2.06\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 3.21\% | 2.63\% | 1.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.26\% | 3.06\% | 2.38\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 4.40\% | 3.57\% | 2.96\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 5.00\% | 3.57\% | 2.81\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 5.01\% | 3.58\% | 3.29\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 5.05\% | 3.56\% | 2.92\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 5.55\% | 3.98\% | 3.09\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 9 | 2.50 |  |
| 11 | 4.60\% | 3.99\% | 2.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 5.90\% | 4.74\% | 3.88\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 13 | 7.34\% | 5.15\% | 4.50\% | 1 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 14 | 8.44\% | 5.78\% | 5.23\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 15 | 8.90\% | 6.45\% | 4.34\% | 2 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 14.02\% | 9.76\% | 6.38\% | 3 | 2 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 6.51\% | 5.57\% | 3.47\% | 1 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 18 | 10.10\% | 7.78\% | 7.06\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 11.66\% | 7.72\% | 4.77\% | 3 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 20 | 12.72\% | 10.84\% | 9.55\% | 3 | 2 | 2 | 3 | 1.00 | 1.00 | - | Avai | able Credit Prem: | Credit Eligible Exp: |
| 21 | 15.41\% | 11.31\% | 9.45\% | 3 | 3 | 2 | 4 | 1.00 | 1.00 | - |  |  |  |
| 22 | 14.23\% | 10.75\% | 9.36\% | 3 | 2 | 2 | 3 | 1.00 | 1.00 | - | 2016 | 100,854,461 | 52,700 |
| 23 | 8.79\% | 6.11\% | 4.96\% | 2 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 24 | 4.64\% | 3.61\% | 2.78\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 116,333,988 | 61,664 |
| 25 | 6.65\% | 4.56\% | 2.66\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 26 | 8.63\% | 5.64\% | 4.22\% | 2 | 1 | 0 | 2 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 2.51\% | 2.07\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 12.55\% | 7.28\% | 5.09\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  | $(15,479,527)$ | $(8,963)$ |
| 41 | 12.06\% | 6.14\% | 4.61\% | 3 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 42 | 9.55\% | 4.71\% | 3.40\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | Percent Change: | Percent Change: |
| 43 | 8.81\% | 5.59\% | 6.17\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 44 | 11.57\% | 6.62\% | 6.40\% | 3 | 1 | 1 | 2 | 1.00 | 1.00 | - |  | -13.3\% | -14.5\% |
| 45 | 12.13\% | 6.63\% | 6.25\% | 3 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.83\% | 0.39\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 5.17\% | 3.64\% | 2.98\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 18

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | 2016 |  |  |  |  |  | Credits |  |
| 1 | 1.12\% | 0.63\% | 0.70\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.84\% | 0.55\% | 0.42\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.34\% | 0.92\% | 0.72\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.14\% | 0.86\% | 0.47\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 1.75\% | 1.26\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.10\% | 1.13\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.98\% | 1.31\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 1.08\% | 0.94\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.17\% | 1.57\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.83\% | 1.02\% | 1.57\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 1.24\% | 0.77\% | 1.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 2.44\% | 1.85\% | 1.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.71\% | 1.96\% | 1.79\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.53\% | 2.39\% | 2.02\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 4.75\% | 4.06\% | 2.60\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 1.75\% | 0.00\% | 1.03\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 2.14\% | 1.13\% | 0.80\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.63\% | 5.10\% | 3.98\% | 1 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 3.16\% | 2.04\% | 0.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 3.59\% | 4.15\% | 1.81\% | 0 | 0 | 0 | 0 | - | - | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 4.86\% | 3.05\% | 3.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 9.76\% | 4.32\% | 3.76\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 671,348 | 342 |
| 23 | 2.12\% | 1.27\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 3.56\% | 0.43\% | 2.37\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 5 1,968,996 | 1,208 |
| 25 | 0.15\% | 1.68\% | 0.85\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.20\% | 3.21\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.89\% | 0.72\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 5.77\% | 2.78\% | 0.40\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | $(1,297,648)$ | (866) |
| 41 | 7.29\% | 1.64\% | 1.36\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 42 | 2.50\% | 1.69\% | 1.07\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 3.03\% | 3.04\% | 1.92\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.80\% | 2.70\% | 2.12\% | 0 | 0 | 0 | 0 | - | - | - |  | -65.9\% | -71.7\% |
| 45 | 4.86\% | 3.11\% | 2.89\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 1.96\% | 0.51\% | 0.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.72\% | 1.21\% | 0.95\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 20

|  |  | Residual Market Share |  |  | Indicated Mkt Share Range |  | Selected Range* | $2016$ <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ |  | Residual <br> Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | 2015 | 2016 |  |  |  | Change |  | Credits |  |
| 1 | 4.03\% | 3.98\% | 5.86\% | 0 | 0 | 1 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 5.82\% | 4.31\% | 3.79\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 1 | 1.00 |  |
| 3 | 7.69\% | 3.82\% | 4.09\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 2 | 1.00 |  |
| 4 | 5.70\% | 3.32\% | 2.39\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 3 | 1.00 |  |
| 5 | 7.89\% | 6.27\% | 5.51\% | 1 | 1 | 1 | 1 | 1.00 | 1.00 | - | 4 | 1.25 |  |
| 6 | 8.17\% | 5.21\% | 5.64\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 5 | 1.50 |  |
| 7 | 8.07\% | 5.93\% | 5.72\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 6 | 1.75 |  |
| 8 | 12.69\% | 6.65\% | 6.37\% | 3 | 1 | 1 | 2 | 1.00 | 1.00 | - | 7 | 2.00 |  |
| 9 | 8.51\% | 6.58\% | 6.38\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 8 | 2.25 |  |
| 10 | 11.91\% | 6.98\% | 5.64\% | 3 | 1 | 1 | 2 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 10.13\% | 5.85\% | 5.06\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 12 | 12.77\% | 7.55\% | 6.51\% | 3 | 1 | 1 | 1 | 1.00 | 1.00 | - |  |  |  |
| 13 | 11.99\% | 8.85\% | 8.20\% | 3 | 2 | 2 | 3 | 1.00 | 1.00 | - |  |  |  |
| 14 | 15.28\% | 13.10\% | 11.54\% | 3 | 3 | 3 | 4 | 1.00 | 1.00 | - |  |  |  |
| 15 | 21.15\% | 13.01\% | 12.37\% | 4 | 3 | 3 | 4.25 | 1.25 | 1.25 | - |  |  |  |
| 16 | 26.59\% | 25.13\% | 20.50\% | 5 | 5 | 4 | 5 | 1.50 | 1.50 | - |  |  |  |
| 17 | 19.61\% | 9.89\% | 9.66\% | 4 | 2 | 2 | 3.25 | 1.25 | 1.25 | - |  |  |  |
| 18 | 20.86\% | 22.51\% | 12.89\% | 4 | 4 | 3 | 5.25 | 1.25 | 1.25 | - |  |  |  |
| 19 | 15.29\% | 16.67\% | 15.33\% | 3 | 3 | 3 | 4 | 1.00 | 1.00 | - |  |  |  |
| 20 | 24.66\% | 18.55\% | 20.05\% | 5 | 4 | 4 | 5.5 | 1.50 | 1.50 | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 32.61\% | 23.95\% | 24.30\% | 6 | 5 | 5 | 6.75 | 1.75 | 1.75 | - |  |  |  |
| 22 | 33.75\% | 22.17\% | 20.19\% | 6 | 4 | 4 | 5.75 | 1.75 | 1.75 | - | 2016 | 115,180,603 | 33,463 |
| 23 | 18.35\% | 10.83\% | 8.91\% | 4 | 2 | 2 | 3.25 | 1.25 | 1.25 | - |  |  |  |
| 24 | 8.54\% | 5.71\% | 5.99\% | 2 | 1 | 1 | 1 | 1.00 | 1.00 | - | 2015 | 116,383,809 | 33,463 |
| 25 | 13.28\% | 13.16\% | 13.22\% | 3 | 3 | 3 | 4 | 1.00 | 1.00 | - |  |  |  |
| 26 | 23.56\% | 13.76\% | 13.36\% | 5 | 3 | 3 | 3 | 1.00 | 1.50 | (0.50) |  | Difference: | Difference: |
| 27 | 5.26\% | 3.54\% | 2.51\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 40 | 24.85\% | 11.38\% | 10.14\% | 5 | 3 | 2 | 3 | 1.00 | 1.50 | (0.50) |  | $(1,203,206)$ | - |
| 41 | 14.09\% | 9.23\% | 9.28\% | 3 | 2 | 2 | 3 | 1.00 | 1.00 | ) |  |  |  |
| 42 | 18.64\% | 12.38\% | 9.20\% | 4 | 3 | 2 | 4.25 | 1.25 | 1.25 | - |  | Percent Change: | Percent Change: |
| 43 | 19.22\% | 14.80\% | 12.44\% | 4 | 3 | 3 | 4.25 | 1.25 | 1.25 | - |  |  |  |
| 44 | 24.27\% | 16.44\% | 14.59\% | 5 | 3 | 3 | 4.5 | 1.50 | 1.50 | - |  | -1.0\% | 0.0\% |
| 45 | 20.07\% | 18.11\% | 16.01\% | 4 | 4 | 3 | 5.25 | 1.25 | 1.25 | - |  |  |  |
| 99 | 2.48\% | 3.08\% | 1.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 12.86\% | 8.91\% | 8.12\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 21

|  |  | Residual Market Share | Share | Indicated Mkt Share Range |  |  | Selected <br> Range* | $\begin{gathered} 2016 \\ \text { Credits } \end{gathered}$ | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out <br> Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.87\% | 1.52\% | 0.75\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 2.29\% | 1.29\% | 0.97\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 2.90\% | 1.82\% | 1.46\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 2.49\% | 2.11\% | 0.94\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 4.05\% | 2.57\% | 2.49\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 3.80\% | 3.28\% | 2.05\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.70\% | 2.76\% | 2.41\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 4.32\% | 1.96\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 5.47\% | 2.97\% | 1.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 8 | 2.25 |  |
| 10 | 9.63\% | 4.03\% | 3.11\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - | 9 | 2.50 |  |
| 11 | 3.08\% | 2.33\% | 1.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.79\% | 3.88\% | 2.51\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 10.29\% | 3.92\% | 4.18\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 14 | 5.89\% | 4.05\% | 3.36\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 15 | 10.82\% | 4.90\% | 2.81\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 16 | 13.13\% | 13.16\% | 6.32\% | 3 | 3 | 1 | 4 | 1.00 | 1.00 | - |  |  |  |
| 17 | 5.11\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 5.32\% | 3.61\% | 3.86\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 19 | 5.62\% | 4.17\% | 1.29\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 20 | 11.09\% | 6.02\% | 4.70\% | 3 | 1 | 0 | 2 | 1.00 | 1.00 | - | Availab | Credit Prem: | Credit Eligible Exp: |
| 21 | 10.53\% | 4.35\% | 3.20\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 22 | 9.88\% | 2.86\% | 1.84\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - | 2016 | 9,451,635 | 3,711 |
| 23 | 4.67\% | 4.48\% | 3.04\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 6.40\% | 2.76\% | 0.46\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2015 | 14,176,145 | 5,797 |
| 25 | 2.60\% | 0.00\% | 1.88\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 6.32\% | 1.47\% | 0.96\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | Difference: | Difference: |
| 27 | 2.55\% | 1.88\% | 1.44\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 13.69\% | 7.00\% | 6.03\% | 3 | 1 | 1 | 2 | 1.00 | 1.00 | - |  | $(4,724,509)$ | $(2,086)$ |
| 41 | 12.53\% | 5.33\% | 4.65\% | 3 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 42 | 6.17\% | 3.86\% | 1.49\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | ent Change: | Percent Change: |
| 43 | 7.66\% | 3.59\% | 2.47\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 8.43\% | 3.35\% | 3.96\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  | -33.3\% | -36.0\% |
| 45 | 10.32\% | 2.31\% | 3.78\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.38\% | 0.00\% | -4.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |

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.

Indicated Private Passenger Auto Residual Market Share Group - Operator Class 25

|  | Residual Market Share |  |  | Indicat | Mkt Sh | Range | Selected Range* | $\begin{gathered} 2016 \\ \text { Credits } \\ \hline \end{gathered}$ | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  |  |  |
| 1 | 1.88\% | 1.37\% | 1.36\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 1.61\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 1.84\% | 1.26\% | 0.89\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 1.75\% | 1.27\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 2.37\% | 2.09\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 2.57\% | 1.99\% | 1.65\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 2.53\% | 1.92\% | 1.58\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 3.30\% | 2.48\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 2.62\% | 2.15\% | 2.18\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 3.19\% | 3.31\% | 2.20\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 2.54\% | 1.31\% | 2.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 4.04\% | 3.41\% | 2.75\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 3.75\% | 3.40\% | 3.16\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 6.81\% | 5.30\% | 2.93\% | 1 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 15 | 11.71\% | 4.46\% | 5.06\% | 3 | 0 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 17.01\% | 4.90\% | 5.70\% | 4 | 0 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 17 | 3.23\% | 3.64\% | 1.84\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 9.96\% | 5.00\% | 6.07\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 19 | 4.46\% | 11.43\% | 9.12\% | 0 | 3 | 2 | 2 | - | - | - |  |  |  |
| 20 | 8.81\% | 5.74\% | 4.85\% | 2 | 1 | 0 | 2 | 1.00 | 1.00 | - | Availa | able Credit Prem: | Credit Eligible Exp: |
| 21 | 8.56\% | 5.86\% | 6.48\% | 2 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 22 | 10.69\% | 8.39\% | 3.15\% | 2 | 2 | 0 | 3 | 1.00 | 1.00 | - | 2016 | -14,372,306 | 3,839 |
| 23 | 6.30\% | 3.39\% | 0.53\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 24 | 5.30\% | 2.03\% | 0.24\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - | 2015 | 15,262,693 | 4,091 |
| 25 | 8.64\% | 0.00\% | 2.51\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) |  |  |  |
| 26 | 9.20\% | 2.76\% | 2.83\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | Difference: | Difference: |
| 27 | 1.33\% | 0.88\% | 0.63\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 3.61\% | 3.64\% | 3.47\% | 0 | 0 | 0 | 0 | - | - | - |  | $(890,387)$ | (251) |
| 41 | 4.94\% | 4.21\% | 4.61\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 4.47\% | 4.14\% | 2.42\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 7.06\% | 6.52\% | 3.65\% | 1 | 1 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 44 | 10.75\% | 4.27\% | 4.07\% | 2 | 0 | 0 | 1 | 1.00 | 1.00 | - |  | -5.8\% | -6.1\% |
| 45 | 7.15\% | 5.62\% | 6.59\% | 1 | 1 | 1 | 2 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.52\% | 0.40\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 2.55\% | 1.97\% | 1.66\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 26

|  | Residual Market Share |  |  | Indicated Mkt Share Range |  |  | Selected Range* | 2016 <br> Credits | $\begin{gathered} 2015 \\ \text { Credits } \end{gathered}$ | Change | Residual Mark Shr Group | Keep Out Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | 2015 | 2016 |  |  |  |  |  |  |  |
| 1 | 0.85\% | 0.56\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.52\% | 0.36\% | 0.39\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.84\% | 0.58\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.67\% | 0.55\% | 0.41\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.93\% | 0.92\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 0.81\% | 0.67\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 0.92\% | 0.68\% | 0.52\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.95\% | 0.89\% | 0.55\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 0.93\% | 0.58\% | 0.74\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 1.56\% | 1.02\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.67\% | 0.68\% | 0.69\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.75\% | 1.20\% | 1.12\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.28\% | 1.43\% | 1.24\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 1.87\% | 0.47\% | 0.46\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 3.62\% | 1.93\% | 1.52\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 16 | 0.76\% | 0.00\% | 2.43\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 17 | 1.40\% | 0.70\% | 0.37\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 3.56\% | 3.30\% | 1.72\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 2.14\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 0.80\% | 0.77\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - | Availab | redit Prem: | Credit Eligible Exp: |
| 21 | 1.76\% | 0.91\% | 0.73\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 5.59\% | 0.00\% | 0.00\% | 1 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 989,334 | 334 |
| 23 | 0.91\% | 1.55\% | 0.49\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 0.85\% | 0.96\% | 0.96\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 1,139,323 | 380 |
| 25 | 1.39\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 0.96\% | 2.02\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.41\% | 0.35\% | 0.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 0.06\% | 1.47\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - |  | $(149,989)$ | (46) |
| 41 | 3.25\% | 1.54\% | 1.50\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 1.58\% | 0.73\% | 0.76\% | 0 | 0 | 0 | 0 | - | - | - |  | nt Change: | Percent Change: |
| 43 | 2.42\% | 1.10\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 1.88\% | 2.14\% | 1.69\% | 0 | 0 | 0 | 0 | - | - | - |  | -13.2\% | -12.1\% |
| 45 | 5.87\% | 1.57\% | 1.70\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 99 | 0.00\% | 0.00\% | 0.00\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 0.94\% | 0.69\% | 0.54\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class 30

|  | Residual Market Share |  |  | Indicated | Mkt Shar | Range | Selected Range* | 2016 <br> Credits | $2015$ <br> Credits | Change | Residual Mark Shr Group | Keep Out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terr | Aug-13 | Aug-14 | Jul-15 | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  |  |  |  |  | Credits |  |
| 1 | 0.99\% | 0.64\% | 0.28\% | 0 | 0 | 0 | 0 | - | - | - | 0 | 0.00 |  |
| 2 | 0.86\% | 0.66\% | 0.62\% | 0 | 0 | 0 | 0 | - | - | - | 1 | 1.00 |  |
| 3 | 0.87\% | 0.52\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - | 2 | 1.00 |  |
| 4 | 0.81\% | 0.51\% | 0.50\% | 0 | 0 | 0 | 0 | - | - | - | 3 | 1.00 |  |
| 5 | 0.97\% | 0.91\% | 0.82\% | 0 | 0 | 0 | 0 | - | - | - | 4 | 1.25 |  |
| 6 | 1.01\% | 0.85\% | 0.77\% | 0 | 0 | 0 | 0 | - | - | - | 5 | 1.50 |  |
| 7 | 1.54\% | 1.13\% | 0.92\% | 0 | 0 | 0 | 0 | - | - | - | 6 | 1.75 |  |
| 8 | 0.93\% | 1.23\% | 1.16\% | 0 | 0 | 0 | 0 | - | - | - | 7 | 2.00 |  |
| 9 | 1.27\% | 0.94\% | 0.56\% | 0 | 0 | 0 | 0 | - | - | - | 8 | 2.25 |  |
| 10 | 2.29\% | 1.49\% | 1.68\% | 0 | 0 | 0 | 0 | - | - | - | 9 | 2.50 |  |
| 11 | 0.97\% | 1.74\% | 1.28\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 12 | 1.86\% | 1.29\% | 1.29\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 13 | 2.05\% | 1.29\% | 1.32\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 14 | 3.24\% | 3.44\% | 2.94\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 15 | 5.81\% | 6.90\% | 3.55\% | 1 | 1 | 0 | 2 | 1.00 | 1.00 | - |  |  |  |
| 16 | 7.84\% | 4.32\% | 2.23\% | 1 | 0 | 0 | 1 | 1.00 | 1.00 | - |  |  |  |
| 17 | 1.39\% | 1.36\% | 2.31\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 18 | 1.04\% | 2.13\% | 0.86\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 19 | 1.49\% | 1.93\% | 1.55\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 20 | 1.68\% | 0.00\% | 1.39\% | 0 | 0 | 0 | 0 | - | - | - | Availab | able Credit Prem: | Credit Eligible Exp: |
| 21 | 2.47\% | 2.39\% | 2.15\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 22 | 8.30\% | 1.27\% | 2.37\% | 2 | 0 | 0 | 0 | - | 1.00 | (1.00) | 2016 | 657,326 | 441 |
| 23 | 0.98\% | 1.55\% | 0.98\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 24 | 1.21\% | 1.06\% | 1.80\% | 0 | 0 | 0 | 0 | - | - | - | 2015 | 5 809,940 | 526 |
| 25 | 1.31\% | 0.80\% | 0.53\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 26 | 4.15\% | 4.92\% | 3.09\% | 0 | 0 | 0 | 0 | - | - | - |  | Difference: | Difference: |
| 27 | 0.62\% | 0.61\% | 0.38\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 40 | 1.29\% | 0.97\% | 0.59\% | 0 | 0 | 0 | 0 | - | - | - |  | $(152,613)$ | (84) |
| 41 | 1.68\% | 1.20\% | 1.22\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 42 | 2.10\% | 1.35\% | 1.66\% | 0 | 0 | 0 | 0 | - | - | - |  | Percent Change: | Percent Change: |
| 43 | 2.31\% | 1.26\% | 2.34\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 44 | 4.60\% | 2.87\% | 2.77\% | 0 | 0 | 0 | 0 | - | - | - |  | -18.8\% | -16.0\% |
| 45 | 2.31\% | 1.05\% | 0.99\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| 99 | 0.00\% | 2.41\% | 0.67\% | 0 | 0 | 0 | 0 | - | - | - |  |  |  |
| Tot | 1.20\% | 0.97\% | 0.84\% |  |  |  |  |  |  |  |  |  |  |

*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.

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Indicated Private Passenger Auto Residual Market Share Group - Operator Class MM

*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.

2016 Proposed Credit Factors - Data Through July, 2015

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

$\left.\begin{array}{ccc} & \begin{array}{c}\text { Residual } \\ \text { Mark Shr }\end{array} & \begin{array}{c}\text { Keep } \\ \text { Out }\end{array} \\ \text { Group }\end{array} \quad \begin{array}{ccc}\text { Credits }\end{array}\right]$

## Commonwealth Automobile Reinsurers Voluntary 3 Year Loss Ratio (CAR ID 1,8)

Data through March, 2015

|  | Rate Class Group |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | 10 | 15 | 17 | 18 | 20 | 21 | 25 | 26 | 30 | MC/Misc. | Total |
| 1 | 57.59\% | 69.65\% | 70.23\% | 55.77\% | 60.16\% | 49.82\% | 65.48\% | 46.61\% | 60.51\% | 33.49\% | 59.24\% |
| 2 | 58.18\% | 71.06\% | 71.16\% | 52.65\% | 61.92\% | 60.75\% | 59.05\% | 51.14\% | 62.38\% | 32.05\% | 59.73\% |
| 3 | 59.81\% | 66.73\% | 63.89\% | 61.16\% | 64.68\% | 49.56\% | 59.99\% | 53.00\% | 61.68\% | 34.48\% | 60.18\% |
| 4 | 61.00\% | 69.07\% | 61.34\% | 54.72\% | 67.33\% | 62.81\% | 62.55\% | 50.36\% | 59.03\% | 39.21\% | 61.36\% |
| 5 | 61.85\% | 66.59\% | 67.83\% | 66.52\% | 51.49\% | 55.43\% | 60.44\% | 53.50\% | 64.88\% | 39.98\% | 61.90\% |
| 6 | 59.74\% | 71.07\% | 64.40\% | 65.86\% | 57.76\% | 54.16\% | 56.63\% | 48.46\% | 61.04\% | 38.78\% | 60.54\% |
| 7 | 59.84\% | 67.82\% | 64.92\% | 55.49\% | 57.26\% | 47.38\% | 61.07\% | 53.76\% | 61.82\% | 34.93\% | 60.39\% |
| 8 | 61.62\% | 70.72\% | 62.78\% | 55.26\% | 61.62\% | 55.64\% | 64.71\% | 53.52\% | 63.58\% | 43.23\% | 62.28\% |
| 9 | 61.52\% | 65.30\% | 63.11\% | 68.38\% | 57.70\% | 51.38\% | 62.63\% | 55.90\% | 66.97\% | 32.82\% | 61.51\% |
| 10 | 61.59\% | 72.57\% | 58.92\% | 54.94\% | 70.22\% | 74.08\% | 66.02\% | 48.50\% | 55.90\% | 30.89\% | 62.14\% |
| 11 | 56.56\% | 81.21\% | 54.70\% | 59.44\% | 54.58\% | 59.28\% | 47.92\% | 41.48\% | 53.07\% | 45.95\% | 58.86\% |
| 12 | 60.89\% | 70.16\% | 58.97\% | 58.97\% | 58.52\% | 55.02\% | 61.25\% | 52.53\% | 63.27\% | 51.19\% | 61.47\% |
| 13 | 66.74\% | 75.91\% | 61.88\% | 60.46\% | 62.74\% | 59.61\% | 67.64\% | 57.70\% | 68.48\% | 37.62\% | 66.75\% |
| 14 | 67.10\% | 70.61\% | 62.69\% | 58.63\% | 68.76\% | 48.09\% | 71.59\% | 55.01\% | 59.35\% | 80.45\% | 66.81\% |
| 15 | 65.13\% | 67.90\% | 58.71\% | 53.48\% | 74.73\% | 73.20\% | 78.48\% | 71.32\% | 72.25\% | 65.51\% | 65.75\% |
| 16 | 65.75\% | 62.70\% | 58.12\% | 60.57\% | 58.76\% | 60.26\% | 61.24\% | 79.12\% | 70.57\% | 32.31\% | 64.54\% |
| 17 | 62.39\% | 76.41\% | 68.47\% | 53.68\% | 107.91\% | 30.44\% | 68.77\% | 46.95\% | 87.81\% | 32.44\% | 64.21\% |
| 18 | 68.33\% | 72.70\% | 60.85\% | 81.09\% | 108.39\% | 39.31\% | 77.54\% | 61.01\% | 65.78\% | 51.35\% | 68.85\% |
| 19 | 49.81\% | 64.29\% | 60.03\% | 86.51\% | 75.73\% | 45.02\% | 58.62\% | 64.79\% | 25.92\% | 37.21\% | 52.08\% |
| 20 | 74.06\% | 77.45\% | 62.10\% | 90.07\% | 111.36\% | 67.43\% | 75.22\% | 54.36\% | 68.62\% | 48.34\% | 74.21\% |
| 21 | 73.20\% | 72.94\% | 76.39\% | 64.44\% | 76.72\% | 88.08\% | 74.58\% | 75.74\% | 52.54\% | 87.10\% | 73.40\% |
| 22 | 75.71\% | 78.66\% | 64.19\% | 86.68\% | 77.77\% | 63.41\% | 78.88\% | 47.26\% | 30.45\% | 105.03\% | 74.98\% |
| 23 | 52.85\% | 74.23\% | 68.82\% | 55.62\% | 71.40\% | 57.55\% | 54.14\% | 46.51\% | 44.04\% | 28.83\% | 55.48\% |
| 24 | 53.95\% | 76.31\% | 50.78\% | 58.82\% | 40.98\% | 46.75\% | 61.15\% | 55.49\% | 68.93\% | 28.20\% | 54.92\% |
| 25 | 46.49\% | 61.50\% | 74.44\% | 46.79\% | 75.63\% | 28.54\% | 38.53\% | 48.15\% | 57.01\% | 31.03\% | 48.17\% |
| 26 | 55.88\% | 79.46\% | 67.55\% | 67.73\% | 58.71\% | 35.17\% | 86.26\% | 71.97\% | 53.39\% | 45.75\% | 58.60\% |
| 27 | 59.64\% | 63.65\% | 64.33\% | 61.25\% | 59.54\% | 57.34\% | 61.61\% | 56.92\% | 57.49\% | 27.54\% | 59.58\% |
| 40 | 56.09\% | 63.56\% | 52.55\% | 54.87\% | 50.99\% | 63.61\% | 70.40\% | 45.82\% | 47.90\% | 37.34\% | 56.60\% |
| 41 | 57.85\% | 63.81\% | 57.87\% | 58.67\% | 62.72\% | 59.38\% | 57.70\% | 55.54\% | 81.60\% | 35.95\% | 58.39\% |
| 42 | 64.94\% | 68.77\% | 63.37\% | 67.29\% | 74.61\% | 63.05\% | 72.44\% | 61.69\% | 54.00\% | 45.38\% | 65.36\% |
| 43 | 68.88\% | 63.64\% | 71.66\% | 58.75\% | 59.89\% | 79.14\% | 57.28\% | 57.80\% | 70.35\% | 31.28\% | 67.31\% |
| 44 | 69.97\% | 81.78\% | 60.67\% | 74.49\% | 67.71\% | 56.18\% | 67.12\% | 58.02\% | 44.18\% | 32.62\% | 69.05\% |
| 45 | 78.93\% | 73.85\% | 82.78\% | 74.53\% | 115.44\% | 73.80\% | 87.05\% | 74.70\% | 50.37\% | 34.80\% | 78.92\% |
| 99 | 73.37\% | 64.77\% | 52.95\% | 64.26\% | 25.65\% | 62.17\% | 43.73\% | 51.97\% | 54.37\% | 55.79\% | 61.63\% |
| Total | 61.60\% | 69.14\% | 64.20\% | 60.76\% | 64.39\% | 57.28\% | 61.78\% | 52.94\% | 61.16\% | 37.66\% | 61.98\% |

LR
$\begin{array}{lllllllllllll}\text { threshold } & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \% & 59.0 \%\end{array}$
Red cells should retain credits

Notes:
(1) Earned Premium : reflects policies effective April 2012 - March 2015 valued at March, 2015
(2) Reported Incurred Losses: reflects policies effective April 2012 - March 2015 valued at March, 2015

Commonwealth Automobile Reinsurers Voluntary 3 Year Loss Ratio (CAR ID 1,8)

Data through March, 2015


Red cells should retain 2015 credits due to LR performance poorer than Std Dev threshold (no New credits)
Notes:
(1) Earned Premium : reflects policies effective April 2012 - March 2015 valued at March, 2015
(2) Reported Incurred Losses: reflects policies effective April 2012 - March 2015 valued at March, 2015

M E M O R A N D U M

October 7, 2015
TO: CAR Actuarial Committee

FROM: Geoff Arnold
RE: 2016 Credit Offer

As the CAR Actuarial Committee continues its discussion of the MAIP Quota Share credit offer for policies effective April 1, 2016 through March 31, 2017, it seems appropriate to address a few unresolved issues that have arisen to date. The following topics may help to focus the Committee's deliberations and enhance our ability to reach agreement.

- The Goal of Keep-Out Credits - M.G.L. c. 175, §113H governs assigned risk plans in Massachusetts, including MAIP. It states: "To control the size of the population of the plan, the plan shall annually provide for territorial and classification credits for those companies voluntarily writing private passenger automobile insurance within those territories and classifications that would otherwise be disproportionately represented in the plan. The size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan".

The statutory language contains references both to the "size of the population" and to "disproportionate representation" of territories and classifications. In order to comply with the statute, CAR's credit offer must address both of these elements. Given the current size of the plan, it is clear that a credit offer at the current (April 1, 2015 through March 31, 2016) level should be adequate to control the size of the plan. That being the case, our work in developing the 2016-2017 credit offer must focus on the other requirement of the statute - enhancing the prospect that no classification or territory be disproportionately represented.

The eleven territories which the Commissioner of Insurance has twice asked us to use as a benchmark remain disproportionately represented in the plan - at fully three times the rate of the other twenty-two territories ( $3.7 \%$ and $1.2 \%$ respectively). In order to comply with the statute, we must develop a credit offer that will enhance the prospects that MAIP volume in those eleven territories be reduced to a level that is less out of proportion with the rest of the state.

- The Volume of Keep-Out Credits - There has been a great deal of concern expressed about the volume of credit premium that is currently being used (\$739.8 million for the most recent twelve months), particularly in comparison to the volume of MAIP premium assigned over the same period ( $\$ 92.2$ million). Some have suggested that this will destabilize the system and/or lead to other distortions in the market, now that companies are using competitively set rates.

However, there is actually no a priori relationship between MAIP volume and overall credit volume that one can point to as being inappropriate. The "right" volume of credits is that which "enhance[s] the prospects that no classification or territory is disproportionately represented in the plan," irrespective of the size of the plan itself. Credits - at any level - do not introduce instability into the system. Instead they shift the same total residual market burden to a lesser or to a greater degree. The approach to credits that CAR has had in place since the MAIP was established is designed to make voluntary business more attractive in credit-eligible territories and classifications
relative to that in non-credit-eligible territories and classifications. We can be entirely comfortable setting them at whatever level the current degree of disproportionate representation demands. This level would be zero if the level of disproportionate representation were also zero, and this would be true irrespective of the size of the plan itself. Conversely, the current level of disproportionate representation (3:1) demands a fairly high level of credits, a fact which is not changed by the current small MAIP volume.

- The Benchmark for Setting Keep-Out Credits - In order to comply with the statutory requirement that we set credits to "enhance the prospects that no classification or territory is disproportionately represented in the plan," we should focus on measured historical levels of disproportionate representation as compared to some normative goal. One way to do this is to pick a completely exogenous goal $-2 \%$ has been suggested - and to calculate the relationship between MAIP usage and that goal. However, when we are as successful in reducing the size of the residual market as has been the case in Massachusetts, it is possible to have cells which are simultaneously below a $2 \%$ goal and considerably above the $1.2 \%$ that characterizes the twenty-two "non-credit" territories.

This contradiction can be resolved by defining disproportionate in relative terms (a concept which of course is inherent in the idea of "disproportionate" itself). This permits permanent use of the levels adopted when the Market Share Group methodology was established.

| Market | Relative to Average |  |  |
| :---: | :---: | :---: | :---: |
| Share | $>$ | $\leq$ | Credits |
| Group | $>$ | 1.8 | 0.00 |
| 0 | 0.0 | 2.9 | 1.00 |
| 1 | 1.8 | 4.0 | 1.00 |
| 2 | 2.9 | 6.2 | 1.00 |
| 3 | 4.0 | 8.4 | 1.25 |
| 4 | 6.2 | 10.6 | 1.50 |
| 5 | 8.4 | 12.7 | 1.75 |
| 6 | 10.6 | 14.9 | 2.00 |
| 7 | 12.7 | 17.1 | 2.25 |
| 8 | 14.9 | 17.1 | $\infty$ |

## Conclusion

For these reasons I believe that a relative range approach using the historical (2012) relativities tabulated above would permit CAR to fulfill its statutory obligation. Not only would this result in a smaller and more stable residual market, but the increased competition for voluntary business in credit territories would also benefit consumers by providing more of them with the opportunity to be written in the voluntary market at lower rates.

Natalie A. Hubley President

## TRANSCRIPT OF

## GOVERNING COMMITTEE MEETING

A meeting of the Governing Committee was held at the offices of Commonwealth Automobile Reinsures, 225 Franklin Street, Boston, Massachusetts, on

## WEDNESDAY, NOVEMBER 18, 2015 AT 11:00 A.M.

Committee Members present -
Mr. M. John Olivieri, Jr. - Chair
J.K. Olivieri Insurance Agency, Inc.

Mr. Paolo V. Abelli
Mr. William J. Cahill, Jr.
Mr. Thomas C. DePaulo
Mr. Christopher D. Dupill
Mr. Sumner D. Gilman
Ms. Paula W. Gold
Mr. James S. Heat
Mr. Christopher Jarrard
Mr. John V. Kelly
Mr. Joseph P. Leahy, Jr.
Ms. Marie-Armel Theodat
Mr. John P. Tierney
Substituted for:
N/A
Not in Attendance:
NA

Liberty Mutual Group
The Hanover Insurance Company
Meridian Insurance Agency, LLC
EM Freedman Insurance Agency, Inc.
Economy Insurance Agency, Inc.
Plymouth Rock Assurance Corporation
Arbella Insurance Group
GEICO
MAPFRE U.S.A. Corporation
Leahy \& Brown Insurance and Realty
R. Theodat Insurance Agency, Inc.

Quincy Mutual Group
(Meeting began at 11:00 a.m.)





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$\square$








## GC

### 15.15 Actuarial Committee

Mr. Olivieri:
The next agenda item, which I know there'll be some discussion on is Actuarial Committee. Natalie, are you going to be giving this report?

Ms. Hubley:
Yes. The Actuarial Committee has two items for you today. The quota share credits for policies effective April 1, 2016 and later,

I'm going to take the second agenda item first as I think the first agenda item may generate some discussion.

Mr. Olivieri: Do you want to waive the 10-day now or wait until we get to the additional?

Ms. Hubley:
Either way.

Mr. Olivieri:

Mr. Gilman:
So moved.

Mr. Tierney:
Second.

Mr. Olivieri:
Any discussion? All in favor?
All Committee Members:
Aye.
Mr. Olivieri:
Opposed? Motion carries. Thank you.



The next agenda item would be the quota share credits for policies effective April 1, 2016 and later. The Committee met four times during the spring and the summer to discuss this issue. They considered several
models and different approaches to this issue. The indicated credits as codified in the current Rules would indicate a reduction of 64 percent of the potential credit premium within the model and a corresponding decrease in the number of credit-eligible exposures. Several Committee members favored allowing that formulaic approach as codified in the Rule to play out. Many of those Committee members pointed out that the size of the residual market is more influenced by adequate voluntary rating in the competitive market and less influenced by the credit and the credit usage. Companies also suggested that they have easier accessibility to buying and selling of the excess credit premium because of the amount of credit premium in the system which reduces companies' participation in the assignment sharing process. Members also opined that with the smaller residual market, companies are better incented to write the remaining business voluntarily by strengthening the take-out credits rather than adjusting the formula for determining the keep-out credits, and as the size of the residual market decreases so does the need for credits. Finally, several members pointed out that the current formula works well and that the mechanism was designed to be self-correcting in the event that there are any swings in the population of the residual market.

Several members that favored a change to the formula or perhaps even a freezing of credit factors suggested that the volume of exposures that would no longer be eligible for credit is extreme and that if implemented would cause repopulation of the residual market. Members suggested that the significant reduction in the credit-eligible cells would be disruptive to companies that are strategically writing risks in these areas. They also pointed out that the Division of Insurance in two prior credit Decisions has expressed concern about certain territories that it considers likely to be over-represented in the residual market. They argued that although the model is self-correcting that it's overly responsive and therefore disruptive to the marketplace.

In all, the Committee considered seven alternative models giving thoughtful consideration. Some of those models considered mitigated the large indicated decrease by freezing credits in certain cells or transitioning the decrease over time. Others attempted to recalibrate the threshold which defines the disproportionate representation in the residual market and one tied that threshold as currently defined by the residual market size to the loss ratio observed in those cells. After considerable discussion, the Actuarial Committee ultimately voted with eight members in favor and two opposed to recommend the approach that calibrates the measure of disproportionate representation to 70 percent of the current threshold comparing the current statewide residual market of 1.38 percent to the target of 2 percent as defined by the Commissioner of Insurance in the Decision that promulgated the current methodology that we have today.

With that recommendation, the Committee directed CAR staff to draft amendments to the factors in the tables included in Rule 29 using data reported through August 2015 and to present the Rule 29 draft modifications to the Governing Committee at this time. In order to

Mr. Henning:
Mr. Olivieri:

Mr. Kelly:
implement the recommendation of the Actuarial Committee relating to quota share credits, there were proposed Rule amendments attached to the Governing Committee notice. They are also reflected in Exhibit 3 of Docket Number 15.15 - and, I'm going to bring you to those - beginning on Page 4 of 20 of that attachment. The Rule amendments are modified simply to bring the dates current to the 2016 recommendation. On Page 9 of 20 of that exhibit and Page 6 of 12 of Rule 29 begin the more substantive changes relating to the Actuarial Committee's recommendation. It codifies the scale as recommended by the Actuarial Committee that defines or identifies that threshold for disproportionate representation in the residual market. Page 10 of 12 of Rule 29 identifies those credit factors that would result from the Actuarial Committee's recommendation. That would be an action item for your consideration after, I'm sure, some discussion.

That's quite a motion.
I don't want to have to repeat it. Obviously, I'm sure there's going to be some discussion regarding this agenda item. What I'd possibly like to do first is we have a number of Governing Committee members who served on the Actuarial Committee. If they would like to add anything initially and then I'll open it up to the entire table for discussion and see if somebody wants to make a motion or where it will go. John.

I can make some comments. I participated in those meetings. There was a lot of good discussion, a lot of detailed discussion, over the market itself and how credits work. It was unanimous at the Committee that nobody wants to see the residual market grow. I think that everyone agreed that that's the ultimate goal. There really has been great success in driving the size of the residual market down over the last several years. In addition, I voiced my support or my comments that it's a very healthy, competitive marketplace too. There is great competition for writing risks in all of these towns out there. When you look at the Class 10 business in Brockton and the residual market share is less than 3 percent, that's a far cry for those of us who were around when the residual market was two-thirds of the whole market in the old days. Great success there. I think that this recommendation really is a good one in that no one was happy with it coming out of the Committee really. I was of the opinion that we have used the formula that was in place for many years and we should stick with that formula. It did have a dramatic change in the number of credits but I think that what drives the marketplace out there now is not credits. We don't look at credits as a significant factor in competing for business in the marketplace at all. It's really a healthy marketplace out there in these territories that we're talking about. We compete in them. A lot of focus was placed on Brockton and Lowell and Lynn. Today, we have over 450 voluntary agents writing policies with us today in those towns and very profitable agents that are competing, several agents on this board here that have risks written in those towns. Very competitive marketplace out there.

The recommendation is one that is a compromise. It is really a compromise that went from - the numbers have changed a little bit, but I

Mr. Olivieri:
Mr. Tierney:

Mr. Olivieri:

Ms. Gold:
think the potential credits from the formula-based approach was in the minus 70 range or high 60 range. With this approach, it's down in the 20s, a reduction of 20 percent. That sounds like a big number. Last year, we reduced credits in the 10 percent range and we saw that the residual market shrunk. That really kind of supported the fact that credits aren't a driving factor in driving the size of the residual market down out there in the marketplace today. I think it was great work by the Actuarial Committee to come up with this recommendation. It is a compromise. It is one that saw a dramatic reduction in what the formula would have spitted out. So I think it gets us in the right direction and it's something that we support fully.

John.
I also want to add to what John just said regarding the Committee. John complimented the Committee on its hard work, but I also think significant credit - sorry for the pun - should be given to CAR staff for helping to get us to the consensus. There was a lot of good analysis on trying to emulate what the Commissioner had done a number of years ago in a different scenario and that's what we ultimately voted for as the compromise approach. I think we'd still be meeting if it wasn't for the efforts of CAR staff to try and focus us on a common ground. So credit needs to go to them for their hard work.

Thank you for your comments. At this point, do we have any other comments or questions in regards to this portion of the Actuarial Committee's agenda item? Paula.

I appreciate the hard work of the Actuarial Committee. I know it was a compromise. However, there is a statute. The credits are not set just to keep residual market small. It's been a success. The residual market is small but credits deal with disproportionality. You have a letter here from the AG and you have a memo from me. If you look at the AG's letter, I'll start with that. I'm not going to read the letter but there are some things I want to highlight: "Despite the depopulation of the residual market, a number of territories remain substantially overrepresented in the MAIP." That's what the statute is supposed to deal with. Then it goes through the 11 territories that the Commissioner has looked at before. They are still substantially overrepresented. He states the elimination of these credits - the credits will affect those territories. That is not in keeping with what the statute has asked us to do. Then I think the most important point is the fact that the residual market share has decreased over time does not obviate the need and statutory responsibility to develop a system that has a reasonable chance of eliminating territorial overrepresentation in the residual market.

My memo to you basically talks about the same kinds of issues and really highlight three communities where you can see the dramatic impact it has. I think that, to be consistent with the statute, and the statute is independent of the size of the residual market, it's directed at disproportionality. If you look at some of the statistics in the letter of the Attorney General, Roxbury, although it's a small number, is 453 percent.

| Mr. Henning: | Procedurally, we should treat that as a separate motion and not an <br> amendment of the Committee. |
| :--- | :--- |
| Mr. Olivieri: | We don't have a motion at this point. There's no motion yet on the table. |
| Mr. Abelli: | Can I - just so I understand your motion. Is it to freeze credits just in <br> those territories you listed or to maintain this year's credit program into <br> 2016? |
| Ms. Gold: | To freeze credits in those territories if, in fact, they were - if there's an <br> indicated decrease in particular in those territories. |
| Mr. Olivier: | Go ahead, Paolo. |
| Mr. Abelli: | Are we still in discussion or do we need to address her motion? |
| Mr. Olivieri: | Have you made a motion, Paula, I guess is the question? We don't have <br> the Actuarial Committee. |
| Ms. Gold: | I'm happy to have more discussion or if I'm impeding discussion by <br> making the motion. |
| Mr. Olivieri: | Why don't we hold motions at this point? Paolo, do you have a <br> question? |
| Mr. Abelli: | I had just a comment. From our perspective, I would echo what's <br> already been said, that the current methodology has been extraordinarily |
| successful in reducing the size of the involuntary market as well as the |  |
| fact there is much freer competition for companies to innovate a price |  |
| and so on. I think we should not lose sight that this has been an |  |
| extraordinarily successful transition. Kind of like John was saying, I |  |
| think some of these areas probably - I don't have the data - I'd love to |  |
| see the data - but may have been just as disproportionate in the past as |  |
| they potentially are now. Maybe we've gotten better. That said, I do |  |
| believe that the current methodology, given where we're at, does have |  |
| some unintended consequences. We also talked about the rapid |  |

Mr. Olivieri:
Mr. Cahill:
reduction. It's not something that we would like to see so dramatically happen. The compromise solution that's on the table is a compromise. It's a step in the right direction, but Liberty doesn't believe that that's enough. What we would like to see is, frankly, just more study. I know the Committee has met a lot and it's done a lot of work, but we would suggest freezing the current program, which we know works, in its entirety. I'm not clear if it's the same thing that Paula is saying or not, but basically taking what we have today and saying, let's extend that for a year and give this some more thought, have more chance to do analysis, maybe even at the territorial level, and so on, and then come back and make a decision. In the meantime, keep what we have.

Bill.
I appreciate all the comments that have been offered. I also want to thank the Actuarial Committee and staff for all the effort that's gone into this. It is sort of remarkable to think that there have been four meetings on the topic over the course of many months. But it's a very important piece. I'm coming at this from a substantive perspective then also from a procedural standpoint. I think where I'm leading would suggest is we might find somewhere in-between the two ideas that have been brought forth. The idea of the Committee that was the recommendation to the Governing Committee from the Actuarial Committee would lead us in one direction. Paula's suggestion would sort of take us in another. I'm actually thinking what we ought to do is recognize that from a substantive standpoint a very fair question has been raised about whether or not the current proposal actually is consistent with the statutory requirements with regard to credits to be offered by the residual auto market. I don't know how extensively that was discussed at the Actuarial Committee. I feel it's a fair point to actually refer this back to the Actuarial Committee with a very specific charge to ask for a response to that topic, particularly recognizing that it's being raised as a potential flaw in the recommendation. That's my substantive point.

From a procedural standpoint, I'm feeling very old as I'm thinking back to having served on this Committee for - this is my $12^{\text {th }}$ year. We've had to deal with a lot of hotly contested issues. Based on my experience, the times when we've been the most successful as far as being able to move forward a proposal that ultimately is allowed and accepted from a regulatory standpoint as meeting all the various criteria is when we've been very thoughtful and deliberate about the process. I don't think we should be concerned that meetings have already occurred four times or that we're getting close to a drop-dead date for when this program has to actually be put in place. I do feel like we've been asked, as a Governing Committee, by the Office of the Attorney General to specifically look at this. I think it's a timely request unlike sometimes in the past when the requests have come maybe after this body has even acted so it's out of our hands. I do think it's a timely request. As I say, I feel like taking the time to just ensure that all the various questions have been addressed we may end up with exactly the same recommendation coming back here. But I would feel more comfortable voting in favor of it if we have the

Mr. Olivieri:
Mr. Tierney:

Mr. Olivieri:
Mr. Leahy:

Mr. Olivieri:
Mr. Cahill:
information that this question that's been raised from a statutory standpoint has been met.

I'll probably vote against anything that would allow the recommendation from the Actuarial Committee to go forward in favor of trying to get to a motion that would say, let's refer this back to the Actuarial Committee with a very specific charge.

John.
The Actuarial Committee was aware of the statutory requirements. We had them in front of us at a couple of different meetings. So we were aware of the whole issue of disproportionality. My comments earlier about the effort that was made by CAR staff related to that because CAR staff took what the Commissioner gave us a number of years ago in a different size market and applied that same approach for the specific purpose of addressing the disproportionality. It comes out in some cases, like Class 10 in Brockton, that that particular class and that particular territory doesn't meet the threshold that the Commissioner established a number of years ago. I'm very comfortable that the Committee did its work, followed the charge, had the appropriate information in front of it - that's why we took four meetings to get to where we were - but then came forward with something that we think follows the approach that the regulator had previously given us.

I think Joe had his hand up.
In listening to the different arguments, I tend to agree with John here that competition and not credits is keeping the residual market smaller. Quite frankly, if you look at these communities that we've been talking about, given those statistics, obviously credits aren't working there. There's another reason for it. Coming from an agency that is in one of these communities, I can tell you right now, there is plenty of opportunity. Companies are looking at drivers based on their record and other factors. My agency alone has one policy in the MAIP and we come from Springfield. So the argument can't be made that companies don't want to write policies in these communities voluntarily. That, in addition to the amount of work that the Actuarial Committee had done and the overwhelming support that they came up with for this plan I intend to support it.

Bill and then Marie.
I appreciate, John, your comments, really, for being a participant on the Committee. But what I would suggest to you is I think maybe it actually makes it a fairly easy exercise to go back because I don't think we actually have in front of us a record that reflects that extensive discussion and debate. If you bring back a record or if a record is established, that this question has been fully vetted and you do feel every confidence that it's been addressed, I would feel much more comfortable in voting in favor of it. I feel like then we've actually sent along a proposal that has a greater chance of being successful, to be ultimately implemented,
recognizing any of these things are going to be referred as Rule changes, have to go up to the Division, potentially going to have to withstand a hearing process at the Division. I just feel like we are shortsighted if we don't end up ensuring there is an appropriate record that has been built.

Given that I am one of the agents that services more than 50 percent of these disproportionate communities, I do not feel comfortable in supporting the proposal that's been brought up from the Actuarial Committee. Part of it may be because we may not have looked at the probably the contracts that have been given to some of these agents that service a lot of these communities, voluntary contracts. That may ultimately give a market to see that there might be a decrease, but I feel that the Actuarial Committee should take a look at that. I wouldn't feel comfortable about supporting that right now especially given that it will adversely affect a lot of these communities.

Mr. Olivieri:
Jim.
Mr. Hyatt:

Mr. Olivieri:
Paolo.
Mr. Abelli: Could I just ask a question? Should the Committee not vote on this proposal, do the existing credits just continue or do we have to affirmatively push those forward? Do you know what I mean? I'm just kind of fuzzy on that procedural detail.

Mr. Olivieri: I'm going to look to my right.
Mr. Henning: I believe they continue on.
Mr. Olivieri: Bill.
Mr. Cahill: I think, for clarity, if we don't change anything in the Rule we're going to have a 70 percent - whatever the percentage is - reduction which will go into place, right, the Rule language as it currently reads?

Mr. Henning: As it currently stands, correct.

| Mr. Cahill: | We have to act in order to intervene if you want to change the reduction. |
| :--- | :--- |
| Mr. Abelli: | Doing nothing, if we... |
| Mr. Olivieri: | Hang on second. Do we have consensus on the... |
| Mr. Cahill: | Am I correct in that? |
| Mr. Olivieri: | I don't know. I'm going to tell you right now, I don't know. I want to <br> get a straight answer for that first. So let's go to staff. |
| Ms. Hubley: | The Rule as written indicates that the table of credit factors are valid for <br> policies effective April 1, 2015 and subsequent. If nothing were to occur <br> and that we're ok for nothing to occur then the credits would stay as they <br> are today. |
| Mr. Abelli: | So there would be no reduction, just to be clear? It would just continue <br> with the current credits? |
| Mr. Olivieri: | Based on that comment - John wants to add to that. |
| Mr. Tierney: | I agree with Natalie. My understanding is that there is a protocol that we <br> were given by the Division of Insurance a number of years ago for <br> calculating the indicated credits which then find their way into the Rating |
| Manual after this Committee votes. So until this Committee votes to |  |
| change the credit factors in the Rating Manual, they stay in-force |  |
| indefinitely. |  |

(The Committee recessed from 11:55 a.m. to 12:03 p.m.)
Mr. Olivieri:
Thank you. We're going to reconvene the meeting. After staff and Counsel have reviewed the Rules there appears to be a little bit of inconsistency. But the ultimate bottom line is we do not have the option

Mr. Abelli:

Mr. Olivieri:

Ms. Gold:
not to take any action. The Rules mandate that we have to do something. If we leave it the way it is, it's not an option that's on the table. We either need to move something forward and make a decision today or, to Bill's point, if we wanted to send it back to the Actuarial Committee we do have that option but we need to act in short order and we probably could potentially end up having a Special Governing Committee meeting in January, which we may need to do anyway, but that's another agenda item. Any further clarification on that needed?

No, that's helpful. I guess what I would comment is given that and given some of the points raised and, as usual, Bill often says things better than I do, but given some of the things that have happened I think it's worthwhile for this Committee to ask the Actuarial Committee to go back - and this is by no means a comment on the quality of work done to date. I want to be very clear about that. I have full faith that Committee has done some great work so far and considered all these issues. But I would just be more comfortable if the Committee went back and considered these issues head-on, it became part of the Record as Bill said. Frankly, if that can be done quickly, great. If that takes longer then I would suggest we also have a motion to affirmatively freeze what we have in place now until the Actuarial Committee can come back with something.

Before I ask for any additional comments from the table here, I do know we have some extra folks out in the audience. Does anyone from the audience want to make a comment in regards to the topic? OK. Just wanted to cover that. Paula.

As I said before, I appreciate all the work that the Actuarial Committee has done. The fact that it has been stated that they considered disproportionality and now we have a recommendation and we can see what the recommendation does in those 11 territories, I think it's really clearly before us whether that is disproportionate or not. I think it may take some time for the Actuarial Committee to deal with this so I could support freezing the credits for a year. If the Actuarial Committee comes back before then with a recommendation we can act on it and we can act that way, picking up on what Paolo said.

My concern is that it's going to come back with the same recommendation with more justifications for it and we'll be back exactly where we are now which is, there is a statute. I have no doubt that everybody is trying to act in good faith, but is the market reduction in credits in the 11 territories that have been of interest to the Department in keeping with the statute. If people want to take more time to think about that then freeze the credits and send it back. I don't think it's going to take a month. They've already met four times. We have heard that this has been considered. This has been considered. They tried to come to a compromise in terms of applying the standard methodology and there may be more questions now that that methodology doesn't work consistent with the statute when the MAIP is this small. As the Attorney General said, this board is not relieved of its responsibility to set credits when the MAIP is small. It has been a success and everybody's done a

Mr. Olivieri:

Mr. Kelly:

Mr. Olivieri:

Mr. Tierney:

Mr. Olivieri:
very good job but we're at a different point now. I would say that I have obviously no objection if people want to re-look at it and re-study but if it's going to re-study it and come up with 14 reasons why this is not disproportionate then we're just delaying dealing with that issue. But I would support a motion that Paolo made that we return and frozen for a year.

My suggestion is if it does go back to Committee, you would probably want to show up at the Actuarial Committee and make your point heard. Having said that, John.

I would just say if it comes back with this justification for the current recommendation, it's because it's a good recommendation. I can support the Actuarial Committee's recommendation. I think we, with CAR staff, did great work there. I'd be happy to vote on that today. If the Committee feels more comfortable sending it back to the Actuarial Committee to address and provide more information, I can support that if we do that quickly. I think freezing is just kind of a transparent process of keeping credits high. The last thing I would say is everyone should look at the Quota Share Report. It's not like credits are going away. We have so many credits in the system. That's what we're trying to address here. If you look at the Quota Share Report, you have - rough numbers off the top of my head - something like 700 million credits and $\$ 100$ million of MAIP premium. I mean 700 million credits. We're reducing that down. It's not even close to the size of the MAIP premium out there. So it's not like credits are going away in this process. Credits are still being given in these territories out there. Again, I would support the recommendation that the Actuarial Committee made. If we want to bring it back to the Actuarial Committee for more information, that's fine. I would just be specific, Mr. Chairman, on what they're supposed to look at because it's a little fuzzy to me as to what is it that they're supposed to be addressing.

John.
I just want to add one additional comment. I'm agreeing with John but if the Actuarial Committee comes back feeling strongly that their current recommendation is the appropriate one and that it addresses all of this, I think we then have to vote up or down on it and resolve it and not keep sending it back until we get a different answer. Ultimately, the ultimate determinator of whether this works or not is the Division of Insurance. I have no problem sending what the Actuarial Committee recommended to the Division of Insurance because I believe we worked very hard to address what we had been instructed to do. If the Commissioner says, you did a wonderful job, great. If the Commissioner says, you did a wonderful job but, we'll hear from him in very clear language as to what we did right and what we could have done better as opposed to us debating this or putting it off for years because keeping the status quo works for some and doesn't work for others.

Jim, I just want to address one point John said. I can guarantee you this, if it does get put back to Actuarial, if that's the consensus of the

Committee, I will do everything in my power to get a vote out of this group at the next Special Governing Committee meeting because that's what we'd end up having to do. As I said, we don't have an option. Option C is off the table.

| Mr. Henning: | And there are time considerations. |
| :--- | :--- |
| Mr. Olivieri: | There are time considerations. John, to your point, if it does come back, <br> we'll have to vote one way or the other. That's not going to be an issue. |
| Mr. Olivieri: | Jim. |
| Mr. Hyatt: | That was just my question. Practically, just for the Committee, what is <br> the timeframe where a decision would need to be made? |
| Mr. Henning: | I would say we'd have to do it - when do we think for the special |
| Mr. Olivieri: | We'd have to have a vote in order to send - it would be a Rule <br> amendment that would have to be sent to the DOI, give them enough <br> time to see if an appeal is filed. Even then that's - because it has to be in |
| Mr. Henning: | place by the time the old one runs out. |
| Again, I'm making some assumptions here but if it were to go that route |  |
| Mr. Olivieri: | - I'm not saying it’s going to, whatever the Committee’s decision is - I'd <br> charge the Actuarial specifically what to look at, meet in December, get a <br> report back, and we'd have something in the first half of January so we'd <br> have time to meet all of our deadlines. Joe. |
| Mr. Leahy: | I just have one question for John. John, you've been through this whole <br> process, do you see any changes? If we do send it back to Actuarial, do <br> you realistically see any changes? Knowing everything that has been <br> vetted, that in the end it was a 9 to 2 vote, do you really see any changes <br> forthcoming from Actuarial. |
|  |  |

Mr. Tierney:

Mr. Leahy:
Mr. Tierney:

Mr. Henning:

One correction. It was an 8 to 2 vote.

I'm sorry, 8 to 2.

I'm good with numbers. I don't see it changing because I sincerely believe that the Committee did the work that it was supposed to do. That's why it took so many meetings. There is, and Bill mentioned this earlier, if there is a need for better documentation from the Committee as to what they did, how they did it, and how they got to where we are, that's a worthwhile exercise. But I don't necessarily see us getting together and coming up with a brand new piece of paper with a whole different formula on it.

Can I just - Maryellen...
Mr. Olivieri:
Mr. Henning:
Ms. Thompson:
Mr. Henning:
Ms. Gold:
Ms. Thompson:

Mr. Olivieri:
Mr. Cahill:

Mr. Olivieri:

Ms. Gold:

Ms. Hubley:
Ms. Gold:

Mr. Olivieri:
Mr. Abelli:

Counsel and then Bill.
Maryellen, do you have concerns if we weren't able to take the vote until January? Would that back you guys to get it done by March?

I don't think it's us that updates them.
Right. But what I'm saying is assuming that we would get the Rule amendments to you guys.

Then there was a hearing.
That's the concern. If someone asks for hearing there's no guarantee of any timeframe whatsoever.

I'm going to take this in order. Bill.
I appreciate all the comments. I think that what I would definitely suggest is that we refer it back. I don't want to predict what the Actuarial Committee is actually going to do. I don't want to try to foresee. I would actually leave it to them other than, John, do you have a specific question? I feel like we've got a question that's all around the statutory issue. It's been raise by Governing Committee members. It's been raised by the Attorney General's Office. I think that's really the main point here. Does the Actuarial Committee feel that the proposal that's coming back addresses this particular requirement? The only other thing I would suggest is I'm happy to make a motion but I wouldn't include an alternative about keeping the existing credit program in place. I actually feel like it's a good thing from a time constraint standpoint to require us to get a backup here or deal with it in January. It sounds like the Budget Committee, which we'll get to in a little bit, we may end up needing a January meeting anyway. My thought is to leave that part out, Paolo. I know you had raised that. My thought is it's good to have the time pressure to make sure it comes back up and then we're forced to deal with it.

Paula had her hand up. Did somebody else have their hand up? Paula, Paolo, and then I'd like to see if we can get a motion.

Don't we have a transcript of the Actuarial Committee? Is there a transcript of those Committee meetings?

We have a recording. We can create a transcript.
It wasn't indicated here that that was fully looked at in those meetings. So I just point that out that to the extent that you want a full Record, there are transcripts of four meeting that could be made available.

Paolo and then Bill.
Just to try and draw this to a conclusion, I'm with Bill. I feel like we should remand this - and, again, like I'm saying, it's no judgment on the

Mr. Olivieri:
Mr. Cahill:
Mr. Olivieri:

Mr. Hyatt:

Mr. Olivieri:
Mr. Leahy:

Mr. Olivieri:
work that was done. The reason I think it's good to have a credit program is more of a backstop. Let's say we cannot get ourselves organized and let's say there's a hearing, et cetera, at least we have a credit program that's in place. I think we're sort of pretty close or on the same page as Bill and I in terms of, let's get this back, and I favor that kind of motion. I prefer to have a backstop of at least we voted on this credit program so if things slide we can do that in January too.

Bill, make a comment and then I'm going to move this along.
I was just going to make a motion.
Before you make a motion, I think it's in this organization's best interest at this point - there's been a number of different comments. In talking with Counsel and my Vice Chair, I think the safer route for us to go at this point - and I think the work that was done by actuarial staff and whatnot is very good. I think it's potentially at this point because we're probably not going to have a very one-sided vote at this point anyways for us to send it back to Actuarial, focus on the territories that basically we're talking about are being addressed, and make sure that we have vetted those, go through the transcript, get out as much information we can to the Governing Committee because I'm not sure of the dates yet. But we are going to have to react to this relatively quickly. It's probably going to be very early in January that we're going to have to have a Special Governing Committee meeting. Like I said, we don't have an option to do nothing. We have to do something and I want to make sure we do it the right way. It's better if we have everybody or the vast majority of the folks around this table on board. Having said that, if anybody wants to speak against my plan please feel free to do so.

The only comment I would make is I think John had mentioned this a little bit earlier, if this goes back to the Actuarial Committee is to look at the statistics and the data and not just at a snapshot in time. Let's look at it over a number of years ago to today. Let's really understand the trends in those territories and see if that sheds any additional light on the direction we should go.

Joe.
The only thing I would ask is that, I mean, we're all here today in theory that we were going to vote on this, moving it to January that at least an effort can be made in advance to try to find a common date which we all can be here. I think that's the fairest way.

We're going to - I will make sure that everyone is notified as early in advance for their availability and then we'll go with the largest number of participants serving on the Committee that can make the date. You'll probably get that email very shortly. We'll schedule this one far enough in advance. OK. Actuarial Committee is going to schedule a meeting as soon as possible. We'll get some dates out for a Special Governing Committee meeting. Like I said, not to be repetitive, but we need to get this done much sooner rather than later.

Mr. Cahill: John, do you need a motion? Are you electing based upon the discussion to refer it back as Chair?

Mr. Olivieri: I'm just going to refer it back as Chair. That way we don't need a motion. We don't need additional discussion. I haven't entertained a motion to go with the recommendation.

Mr. Cahill:
Understood. OK. Very good.

Mr. Olivieri:
No problem. Anything else on Actuarial? Who thought Actuarial would be that exciting other than John Tierney?





(Meeting ended at 12:27 p.m.)

NATALIE A. HUBLEY
President

Note: This Transcript has not been approved. It will be considered for approval at the next meeting of the Governing Committee.

Boston, Massachusetts
December 14, 2015

The above proceedings have been transcribed in accordance with CAR's guidelines for producing quality transcripts, which provide for the elimination of insignificant material that does not alter the substance of the Committee's discussions, such as sidebar comments, the use of verbal fillers (i.e., uhm's and ah's), and commentary (i.e., "laughter" and "coughing").

## ATTACHMENT LISTING

Attendance Listing



GOVERNING COMMITTEE MEETING
SIGN-IN SHEET
WEDNESDAY, NOVEMBER 18, 2015
Individual's Name
Company / Agency
PLEASE PRINT

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## NOTICE OF MEETING

## ACTUARIAL COMMITTEE

A meeting of the Actuarial Committee will be held at the offices of Commonwealth Automobile Reinsurers, 225 Franklin Street, Boston, on

## THURSDAY, DECEMBER 10, 2015 AT 10:00 A.M.

## MEMBERS OF THE COMMITTEE

Mr. Joseph F. Cofield - Chair
Metropolitan P \& C Insurance Company

Mr. Geoffrey H. Arnold
Mr. Jonathan E. Blake
Mr. Alex F. Butensky
Mr. Christopher Dupill
Mr. Glenn R. Hiltpold
Mr. John V. Kelly
Mr. Michael Petrarca, Jr.
Ms. Lynellen Ramirez
Mr. John P. Tierney
Ms. Meredith M. Woodcock

Plymouth Rock Assurance Corporation
The Hanover Insurance Company
The Norfolk \& Dedham Group
EM Freedman Insurance Agency, Inc.
Safety Insurance Company
MAPFRE U.S.A. Corporation
Amica Mutual Insurance Company
Arbella Insurance Group
Quincy Mutual Group
Liberty Mutual Group

## AGENDA

## AC

### 15.01 Records of Previous Meeting

The Records of the Actuarial Committee meeting of October 7, 2015 should be read and approved.

AC
15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

The Governing Committee has directed the Actuarial Committee to further discuss its quota share credit proposal for policies effective April 1, 2016 and subsequent in order to consider whether and to
what extent the proposal complies with the statutory requirement that the "size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan."

An analysis of historical residual market shares by rate class and territory will be distributed as additional information prior to the meeting.

## 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 F. GALLIGAN
Financial Services Coordinator

Boston, Massachusetts
November 20, 2015 President

ADDITIONAL INFORMATION

## TO MEMBERS OF THE ACTUARIAL COMMITTEE

## FOR THE MEETING OF:

## Thursday, December 10, 2015 at 10:00 a.m.

## AC

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

Attached is an analysis of historical residual market shares by rate class and territory relating to this agenda item. (Docket \#AC15.03, Exhibit \#28)

Also attached is an exhibit displaying historical residual market share relativities to the statewide average, as requested by the Chair. (Docket \#AC15.03, Exhibit \#29)

Also attached is correspondence from the Office of the Attorney General and Plymouth Rock Assurance Corporation relative to the April 1, 2016 and later credit offer, as presented to the Governing Committee at its November 18, 2015 meeting. (Docket \#AC15.03, Exhibits \#30 and 31)

TIMOTHY F. GALLIGAN
Financial Services Coordinator
Attachments
Boston, Massachusetts
December 4, 2015

Natalie A. Hubley

MEMORANDUM

To: Actuarial Committee
From: Tim Galligan
Financial Services Coordinator
Date: $\quad$ December 4, 2015
Re: $\quad$ AC 15.03 Exhibit \# 28 - Historical Residual Market Shares

The Governing Committee has directed the Actuarial Committee to further discuss its quota share credit proposal for policies effective April 1, 2016 and subsequent in order to consider whether and to what extent the proposal complies with the statutory requirement that the "size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan."

Attached is an analysis of historical residual market shares by rate class (page 1) and territory (pages 2-4) to assist the Committee in its discussion.

The exhibit displays the past six years of "Rolling Twelve Month" residual market shares valued as of March of each year, and calculates relativities to the overall statewide average residual market share. The current year uses the most recent data available, April, 2015 - September, 2015.

The Division of Insurance (DOI) territories shown represent those eleven territories previously noted as areas of interest by the Commissioner of Insurance and include Chelsea (16), Hyde Park (20), Dorchester (21), Roxbury (22), Charlestown and East Boston (26), Holyoke (40), Lowell (41), Springfield (42), Lynn (43), Lawrence (44), and Brockton (45).

The exhibit also includes a summary of data that is credit eligible vs. non-credit eligible, using the following approved credit factors:

## Data:

April, 2015 - Sept., 2015
Roll 12 @ March, 2015
Roll 12 @ March, 2014
Roll 12 @ March, 2013
Roll 12 @ March, 2012
Roll 12 @ March, 2011

## Credit Factors

4/1/2015 Credits
4/1/2014 Credits
4/1/2013 Credits
4/1/2012 Credits
4/1/2011 Credits
4/1/2010 Credits

Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer

| Relative to Statewide Average |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mar-11 Mar-12 Mar-13 Mar-14 Mar-15 Ap15+ <br> 1.1 1.1 1.1 1.1 1.0 1.0 <br> 0.2 0.3 0.3 0.3 0.4 0.4 <br> 2.4 2.4 2.3 2.2 2.2 2.1 <br> 0.9 0.8 0.8 0.8 0.7 0.7 <br> 7.0 6.4 6.2 5.4 5.7 6.4 <br> 2.6 2.4 2.5 2.0 1.7 1.8 <br> 1.3 1.1 1.1 1.2 1.2 1.2 <br> 0.4 0.4 0.4 0.4 0.4 0.4 <br> 0.5 0.5 0.5 0.6 0.6 0.5 <br> 1.0 1.0 1.0 1.2 1.3 1.5$\|$ |  |  |  |  |  |  |


| DOI Territories Residual Mkt Shr |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 9.2\% | 9.1\% | 7.5\% | 5.0\% | 3.5\% | 3.2\% |
| 3.0\% | 3.4\% | 3.1\% | 2.7\% | 2.3\% | 2.2\% |
| 16.1\% | 15.7\% | 13.6\% | 8.7\% | 6.4\% | 5.9\% |
| 8.4\% | 7.5\% | 6.0\% | 3.5\% | 2.2\% | 1.8\% |
| 29.3\% | 30.3\% | 27.4\% | 18.8\% | 15.0\% | 14.8\% |
| 15.2\% | 12.9\% | 13.1\% | 5.8\% | 3.5\% | 3.8 |
| 10.1\% | 8.4\% | 8.0\% | 5.7\% | 4.4\% | 3.8\% |
| 4.4\% | 3.7\% | 2.8\% | 1.7\% | 1.4\% | $1.3 \%$ |
| 3.8\% | 3.3\% | 2.9\% | 2.4\% | 1.9\% | 2.0\% |
| 8.0\% | 7.7\% | 6.6\% | 5.9\% | 4.8\% | 5.7\% |

Credit Eligible Exposures

| Rate | "Roll 12" Residual Market Share |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 10 | 8.9\% | 9.0\% | 7.3\% | 4.9\% | 3.4\% | 3.3 |
| 15 | 6.6\% | 7.1\% | 6.2\% | 5.1\% | 4.7\% | 4.9\% |
| 17 | 9.0\% | 8.9\% | 7.6\% | 5.8\% | 4.3\% | 4.1\% |
| 18 | 7.8\% | 7.4\% | 5.9\% | 3.2\% | 2.2\% | 2.0\% |
| 20 | 18.8\% | 18.1\% | 15.5\% | 10.3\% | 8.2\% | 8.6\% |
| 21 | 9.5\% | 8.5\% | 8.3\% | 4.6\% | 3.0\% | 3.1\% |
| 25 | 6.5\% | 6.0\% | 5.3\% | 4.8\% | 4.2\% | 3.9\% |
| 26 | 5.2\% | 4.1\% | 1.4\% | 0.4\% | 2.2\% | 1.0\% |
| 30 | 5.5\% | 5.2\% | 3.2\% | 2.7\% | 3.0\% | 2.6\% |
| MC/Misc. | 6.1\% | 6.5\% | 5.6\% | 5.4\% | 4.3\% | 4.8\% |
| Total | 9.2\% | 9.2\% | 7.6\% | 5.4\% | 3.9\% | 3.9 |


| Relative to Statewide Average |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 3.3 | 3.2 | 2.9 | 2.5 | 2.4 | 2.5 |
| 2.5 | 2.5 | 2.5 | 2.6 | 3.3 | 3.7 |
| 3.3 | 3.2 | 3.1 | 3.0 | 3.0 | 3.1 |
| 2.9 | 2.6 | 2.4 | 1.7 | 1.6 | 1.5 |
| 7.0 | 6.5 | 6.3 | 5.4 | 5.7 | 6.4 |
| 3.5 | 3.0 | 3.3 | 2.4 | 2.1 | 2.3 |
| 2.4 | 2.1 | 2.1 | 2.5 | 2.9 | 3.0 |
| 1.9 | 1.5 | 0.6 | 0.2 | 1.5 | 0.8 |
| 2.0 | 1.9 | 1.3 | 1.4 | 2.1 | 1.9 |
| 2.3 | 2.3 | 2.2 | 2.8 | 3.0 | 3.6 |
| 3.4 | 3.3 | 3.1 | 2.8 | 2.7 | 3.0 |


| dual Mkt Shr |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 9.2\% | 9.1\% | 7.5\% | 5.0\% | 3.5\% | 3.3\% |
| 6.6\% | 7.1\% | 6.2\% | 5.1\% | 4.7\% | 4.9\% |
| 16.1\% | 15.7\% | 13.6\% | 8.7\% | 6.4\% | 5.9\% |
| 8.2\% | 7.5\% | 6.0\% | 3.5\% | 2.1\% | 1.7\% |
| 29.3\% | 30.3\% | 27.4\% | 18.8\% | 15.0\% | 14.8\% |
| 15.5\% | 12.9\% | 13.1\% | 5.8\% | 3.5\% | 3.8\% |
| 10.1\% | 8.4\% | 8.0\% | 5.7\% | 4.4\% | 4.4\% |
| 5.2\% | 4.1\% | 1.4\% | 0.4\% | 2.2\% | 1.0\% |
| 5.7\% | 5.2\% | 3.4\% | 2.8\% | 3.5\% | 2.4\% |
| 8.0\% | 7.7\% | 6.6\% | 5.9\% | 4.8\% | 5.7\% |
| 9.9\% | 9.7\% | 8.1\% | 5.5\% | 3.9\% |  |

Non-Credit Eligible Exposures

| Rate <br> Class | "Roll 12" Residual Market Share |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 10 | 2.1\% | 2.4\% | 2.1\% | 1.7\% | 1.3\% | 1.1\% |
| 15 | 0.6\% | 0.7\% | 0.7\% | 0.6\% | 0.5\% | 0.5\% |
| 17 | 3.5\% | 3.7\% | 3.5\% | 3.1\% | 2.3\% | 2.0\% |
| 18 | 1.9\% | 1.9\% | 1.7\% | 1.3\% | 0.9\% | 0.9\% |
| 20 | 4.9\% | 3.1\% | 3.6\% | 0.0\% | 0.3\% | 5.2\% |
| 21 | 3.8\% | 4.0\% | 3.5\% | 2.3\% | 1.4\% | 2.1\% |
| 25 | 2.6\% | 2.4\% | 2.2\% | 1.9\% | 1.6\% | 1.5\% |
| 26 | 1.0\% | 1.1\% | 1.0\% | 0.8\% | 0.6\% | 0.5\% |
| 30 | 1.1\% | 1.3\% | 1.2\% | 1.0\% | 0.9\% | 0.7\% |
| MC/Misc. | 2.1\% | 2.3\% | 2.0\% | 1.9\% | 1.6\% | 1.7\% |
| Total | 1.9\% | 2.0\% | 1.9\% | 1.5\% | 1.1\% | 1.0\% |
| Credit/Non-Credit | 4.9 | 4.5 | 4.1 | 3.5 | 3.5 | 3.8 |


| Relative to Statewide Average |  |  |  |  |  | DOI Territories Residual Mkt Shr |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% |
| 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 2.4\% | 2.7\% | 2.5\% | 2.2\% | 1.8\% | 1.7\% |
| 1.3 | 1.3 | 1.4 | 1.6 | 1.6 | 1.5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 9.4\% | 0.0\% | 0.0\% | 4.2\% | 2.3\% | 1.8\% |
| 1.8 | 1.1 | 1.4 | 0.0 | 0.2 | 3.9 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1.4 | 1.4 | 1.4 | 1.2 | 1.0 | 1.6 | 10.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1.0 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% |
| 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 3.9\% | 3.6\% | 3.0\% | 1.8\% | 1.3\% | 1.3\% |
| 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 2.4\% | 2.8\% | 2.7\% | 2.1\% | 1.8\% | 2.0\% |
| 0.8 | 0.8 | 0.8 | 1.0 | 1.1 | 1.2 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 4.9\% |
| 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 2.6\% | 2.7\% | 2.6\% | 2.2\% | 1.8\% | 1.9\% |
|  |  |  |  |  |  | 3.9 | 3.6 | 3.2 | 2.5 | 2.2 | 2.1 |

# Commonwealth Automobile Reinsurers - 4/1/2016 Credit Offer <br> Indicated Private Passenger Auto Residual Market Share Group <br> Residual Market Shares Relativities to Statewide Average Summary By Territory 

All Exposures (Credit Eligible + Non-Credit Eligible)

|  | R12 Residual Market Share |  |  |  |  |  | Relative to Statewide Average |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 1 | 1.1\% | 1.3\% | 1.2\% | 1.0\% | 0.7\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 2 | 1.1\% | 1.2\% | 1.2\% | 1.0\% | 0.8\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 3 | 1.4\% | 1.6\% | 1.5\% | 1.2\% | 0.8\% | 0.8\% | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 4 | 1.2\% | 1.3\% | 1.2\% | 1.0\% | 0.8\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 |
| 5 | 1.8\% | 2.0\% | 1.9\% | 1.5\% | 1.1\% | 1.0\% | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |
| 6 | 1.8\% | 2.0\% | 1.9\% | 1.6\% | 1.2\% | 1.0\% | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |
| 7 | 2.5\% | 2.7\% | 2.3\% | 1.9\% | 1.4\% | 1.3\% | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 |
| 8 | 2.2\% | 2.4\% | 2.2\% | 1.8\% | 1.4\% | 1.2\% | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| 9 | 3.5\% | 3.5\% | 2.9\% | 2.1\% | 1.5\% | 1.5\% | 1.3 | 1.3 | 1.2 | 1.1 | 1.0 | 1.1 |
| 10 | 2.8\% | 3.0\% | 2.9\% | 2.3\% | 1.7\% | 1.6\% | 1.0 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 |
| 11 | 2.4\% | 2.6\% | 2.2\% | 1.8\% | 1.3\% | 1.1\% | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 |
| 12 | 2.8\% | 3.0\% | 2.6\% | 2.2\% | 1.7\% | 1.6\% | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 |
| 13 | 4.6\% | 4.8\% | 4.4\% | 3.4\% | 2.5\% | 2.3\% | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 |
| 14 | 4.6\% | 5.0\% | 4.3\% | 3.4\% | 2.5\% | 2.5\% | 1.7 | 1.8 | 1.7 | 1.8 | 1.7 | 1.9 |
| 15 | 5.4\% | 5.9\% | 5.1\% | 3.5\% | 2.5\% | 2.6\% | 2.0 | 2.1 | 2.1 | 1.8 | 1.7 | 2.0 |
| 16 | 9.6\% | 10.0\% | 7.9\% | 6.0\% | 4.3\% | 4.4\% | 3.6 | 3.6 | 3.2 | 3.1 | 3.0 | 3.3 |
| 17 | 2.3\% | 2.3\% | 2.1\% | 1.8\% | 1.6\% | 1.7\% | 0.9 | 0.8 | 0.9 | 1.0 | 1.1 | 1.3 |
| 18 | 6.9\% | 6.8\% | 5.8\% | 4.5\% | 3.8\% | 3.5\% | 2.6 | 2.4 | 2.3 | 2.3 | 2.7 | 2.7 |
| 19 | 4.8\% | 4.8\% | 4.0\% | 3.5\% | 2.9\% | 2.4\% | 1.8 | 1.7 | 1.6 | 1.8 | 2.0 | 1.8 |
| 20 | 8.2\% | 8.2\% | 6.6\% | 5.3\% | 4.6\% | 5.3\% | 3.0 | 2.9 | 2.7 | 2.8 | 3.2 | 4.0 |
| 21 | 10.8\% | 10.7\% | 8.9\% | 7.0\% | 5.6\% | 5.8\% | 4.0 | 3.8 | 3.6 | 3.7 | 3.9 | 4.3 |
| 22 | 12.4\% | 12.7\% | 11.2\% | 8.6\% | 6.4\% | 6.2\% | 4.6 | 4.5 | 4.5 | 4.5 | 4.4 | 4.7 |
| 23 | 4.8\% | 4.9\% | 4.2\% | 3.1\% | 2.1\% | 1.8\% | 1.8 | 1.7 | 1.7 | 1.6 | 1.5 | 1.3 |
| 24 | 3.7\% | 3.8\% | 2.8\% | 2.3\% | 1.7\% | 1.5\% | 1.4 | 1.3 | 1.1 | 1.2 | 1.2 | 1.1 |
| 25 | 3.1\% | 2.8\% | 2.6\% | 1.8\% | 1.5\% | 1.3\% | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 26 | 5.9\% | 5.8\% | 4.5\% | 3.3\% | 2.4\% | 2.5\% | 2.2 | 2.1 | 1.8 | 1.7 | 1.7 | 1.9 |
| 27 | 0.9\% | 1.0\% | 0.9\% | 0.8\% | 0.6\% | 0.6\% | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| 40 | 12.8\% | 11.4\% | 8.4\% | 5.0\% | 3.2\% | 2.4\% | 4.7 | 4.1 | 3.4 | 2.6 | 2.2 | 1.8 |
| 41 | 7.2\% | 6.9\% | 6.7\% | 4.0\% | 2.8\% | 2.5\% | 2.7 | 2.5 | 2.7 | 2.1 | 1.9 | 1.9 |
| 42 | 9.8\% | 8.9\% | 6.9\% | 5.3\% | 3.2\% | 2.4\% | 3.6 | 3.2 | 2.8 | 2.7 | 2.3 | 1.8 |
| 43 | 7.8\% | 7.7\% | 6.1\% | 3.9\% | 2.6\% | 2.7\% | 2.9 | 2.7 | 2.5 | 2.0 | 1.8 | 2.0 |
| 44 | 9.5\% | 9.5\% | 9.1\% | 6.0\% | 4.7\% | 4.9\% | 3.5 | 3.4 | 3.7 | 3.1 | 3.3 | 3.6 |
| 45 | 9.0\% | 9.6\% | 8.0\% | 4.3\% | 3.2\% | 3.3\% | 3.3 | 3.4 | 3.2 | 2.3 | 2.3 | 2.5 |
| 99 | 0.7\% | 0.7\% | 0.6\% | 0.6\% | 0.5\% | 0.3\% | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.2 |
| Tot | 2.7\% | 2.8\% | 2.5\% | 1.9\% | 1.4\% | 1.3\% |  |  |  |  |  |  |
| DOI Terr | 9.1\% | 8.9\% | 7.5\% | 5.1\% | 3.7\% | 3.5\% | 3.4 | 3.2 | 3.0 | 2.7 | 2.6 | 2.6 |

Credit Eligible

|  | R12 Residual Market Share |  |  |  |  |  | Relative to Statewide Average |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 1 | 10.7\% | 8.1\% | 5.2\% | 4.6\% | 5.6\% | 0.0\% | 4.0 | 2.9 | 2.1 | 2.4 | 3.9 | 0.0 |
| 2 | 10.0\% | 8.7\% | 7.0\% | 4.4\% | 4.1\% | 3.6\% | 3.7 | 3.1 | 2.8 | 2.3 | 2.9 | 2.7 |
| 3 | 10.7\% | 9.4\% | 7.9\% | 5.0\% | 3.9\% | 4.1\% | 4.0 | 3.4 | 3.2 | 2.6 | 2.7 | 3.1 |
| 4 | 8.4\% | 8.0\% | 5.8\% | 4.0\% | 3.0\% | 2.6\% | 3.1 | 2.9 | 2.3 | 2.1 | 2.1 | 1.9 |
| 5 | 5.7\% | 6.1\% | 5.1\% | 6.0\% | 4.4\% | 5.9\% | 2.1 | 2.2 | 2.1 | 3.1 | 3.1 | 4.5 |
| 6 | 11.9\% | 12.8\% | 9.3\% | 7.4\% | 5.6\% | 4.8\% | 4.4 | 4.6 | 3.7 | 3.8 | 3.9 | 3.6 |
| 7 | 7.3\% | 7.4\% | 5.8\% | 4.5\% | 3.3\% | 3.5\% | 2.7 | 2.6 | 2.3 | 2.3 | 2.3 | 2.6 |
| 8 | 6.3\% | 7.5\% | 6.9\% | 5.0\% | 3.9\% | 3.4\% | 2.3 | 2.7 | 2.8 | 2.6 | 2.7 | 2.5 |
| 9 | 8.0\% | 7.8\% | 6.0\% | 4.4\% | 3.2\% | 3.6\% | 3.0 | 2.8 | 2.4 | 2.3 | 2.2 | 2.7 |
| 10 | 8.8\% | 8.2\% | 8.0\% | 5.1\% | 3.9\% | 3.4\% | 3.3 | 2.9 | 3.2 | 2.6 | 2.7 | 2.6 |
| 11 | 8.9\% | 8.2\% | 6.1\% | 4.5\% | 3.0\% | 7.4\% | 3.3 | 2.9 | 2.5 | 2.4 | 2.1 | 5.5 |
| 12 | 6.7\% | 7.7\% | 7.2\% | 5.4\% | 4.3\% | 4.9\% | 2.5 | 2.8 | 2.9 | 2.8 | 3.0 | 3.7 |
| 13 | 8.4\% | 8.0\% | 7.4\% | 5.3\% | 5.0\% | 4.7\% | 3.1 | 2.8 | 3.0 | 2.8 | 3.5 | 3.5 |
| 14 | 9.5\% | 10.1\% | 8.8\% | 7.6\% | 5.6\% | 5.0\% | 3.5 | 3.6 | 3.5 | 3.9 | 3.9 | 3.8 |
| 15 | 6.3\% | 12.4\% | 5.8\% | 3.8\% | 2.7\% | 5.8\% | 2.3 | 4.4 | 2.4 | 2.0 | 1.9 | 4.4 |
| 16 | 10.2\% | 10.6\% | 8.4\% | 6.3\% | 4.5\% | 4.6\% | 3.8 | 3.8 | 3.4 | 3.3 | 3.2 | 3.5 |
| 17 | 8.9\% | 7.4\% | 7.1\% | 5.7\% | 4.9\% | 3.9\% | 3.3 | 2.6 | 2.9 | 3.0 | 3.4 | 2.9 |
| 18 | 7.4\% | 7.2\% | 6.1\% | 4.8\% | 4.0\% | 3.7\% | 2.7 | 2.6 | 2.5 | 2.5 | 2.8 | 2.8 |
| 19 | 11.8\% | 10.2\% | 8.5\% | 8.3\% | 6.4\% | 6.9\% | 4.4 | 3.7 | 3.4 | 4.3 | 4.5 | 5.2 |
| 20 | 8.9\% | 8.9\% | 7.2\% | 5.8\% | 4.9\% | 5.8\% | 3.3 | 3.2 | 2.9 | 3.0 | 3.5 | 4.4 |
| 21 | 10.8\% | 10.8\% | 8.9\% | 7.0\% | 5.6\% | 5.8\% | 4.0 | 3.8 | 3.6 | 3.7 | 3.9 | 4.4 |
| 22 | 12.5\% | 12.7\% | 11.2\% | 8.6\% | 6.4\% | 6.2\% | 4.6 | 4.5 | 4.5 | 4.5 | 4.5 | 4.7 |
| 23 | 14.9\% | 13.6\% | 11.2\% | 7.8\% | 5.4\% | 5.6\% | 5.5 | 4.8 | 4.5 | 4.1 | 3.8 | 4.2 |
| 24 | 8.2\% | 9.6\% | 7.3\% | 4.5\% | 3.3\% | 3.2\% | 3.1 | 3.4 | 2.9 | 2.4 | 2.3 | 2.4 |
| 25 | 12.8\% | 11.5\% | 9.3\% | 6.0\% | 6.5\% | 5.2\% | 4.8 | 4.1 | 3.8 | 3.1 | 4.5 | 3.9 |
| 26 | 6.5\% | 6.4\% | 4.9\% | 3.5\% | 2.5\% | 6.4\% | 2.4 | 2.3 | 2.0 | 1.8 | 1.7 | 4.8 |
| 27 | 10.6\% | 8.8\% | 7.0\% | 4.2\% | 2.7\% | 3.5\% | 3.9 | 3.2 | 2.8 | 2.2 | 1.9 | 2.6 |
| 40 | 14.7\% | 13.1\% | 9.7\% | 5.6\% | 3.6\% | 2.5\% | 5.5 | 4.7 | 3.9 | 2.9 | 2.5 | 1.9 |
| 41 | 7.9\% | 7.6\% | 7.3\% | 4.4\% | 3.0\% | 2.7\% | 2.9 | 2.7 | 3.0 | 2.3 | 2.1 | 2.0 |
| 42 | 11.0\% | 9.9\% | 7.7\% | 5.7\% | 3.4\% | 2.5\% | 4.1 | 3.5 | 3.1 | 3.0 | 2.4 | 1.9 |
| 43 | 8.8\% | 8.6\% | 6.9\% | 4.4\% | 2.9\% | 2.9\% | 3.3 | 3.1 | 2.8 | 2.3 | 2.0 | 2.2 |
| 44 | 10.1\% | 10.1\% | 9.7\% | 6.3\% | 5.0\% | 5.1\% | 3.8 | 3.6 | 3.9 | 3.3 | 3.5 | 3.9 |
| 45 | 10.0\% | 10.7\% | 8.8\% | 4.7\% | 3.5\% | 3.5\% | 3.7 | 3.8 | 3.6 | 2.4 | 2.5 | 2.6 |
| 99 | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| Tot | 9.2\% | 9.2\% | 7.6\% | 5.4\% | 3.9\% | 3.9\% | 3.4 | 3.3 | 3.1 | 2.8 | 2.7 | 3.0 |
| DOI Terr | 9.9\% | 9.7\% | 8.1\% | 5.5\% | 3.9\% | 3.9\% | 3.7 | 3.5 | 3.3 | 2.9 | 2.7 | 2.9 |


|  | R12 Residual Market Share |  |  |  |  |  | Relative to Statewide Average |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Territory | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ | Mar-11 | Mar-12 | Mar-13 | Mar-14 | Mar-15 | Ap15+ |
| 1 | 1.1\% | 1.2\% | 1.1\% | 0.9\% | 0.7\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 2 | 1.1\% | 1.2\% | 1.1\% | 1.0\% | 0.8\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 3 | 1.4\% | 1.5\% | 1.4\% | 1.1\% | 0.8\% | 0.7\% | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 |
| 4 | 1.1\% | 1.2\% | 1.2\% | 1.0\% | 0.8\% | 0.7\% | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| 5 | 1.6\% | 1.8\% | 1.7\% | 1.5\% | 1.1\% | 1.0\% | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.7 |
| 6 | 1.8\% | 2.0\% | 1.8\% | 1.5\% | 1.2\% | 1.0\% | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |
| 7 | 2.2\% | 2.5\% | 2.2\% | 1.8\% | 1.3\% | 1.2\% | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 8 | 2.0\% | 2.2\% | 2.1\% | 1.7\% | 1.3\% | 1.1\% | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.8 |
| 9 | 3.2\% | 3.3\% | 2.7\% | 2.0\% | 1.4\% | 1.4\% | 1.2 | 1.2 | 1.1 | 1.1 | 1.0 | 1.0 |
| 10 | 2.5\% | 2.8\% | 2.7\% | 2.2\% | 1.6\% | 1.5\% | 0.9 | 1.0 | 1.1 | 1.2 | 1.1 | 1.1 |
| 11 | 2.1\% | 2.3\% | 2.0\% | 1.6\% | 1.3\% | 1.1\% | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.8 |
| 12 | 2.5\% | 2.7\% | 2.4\% | 2.0\% | 1.6\% | 1.4\% | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 |
| 13 | 4.3\% | 4.5\% | 4.1\% | 3.2\% | 2.3\% | 2.1\% | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 |
| 14 | 4.1\% | 4.5\% | 3.9\% | 3.0\% | 2.2\% | 2.2\% | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 |
| 15 | 1.2\% | 5.2\% | 2.1\% | 2.1\% | 1.4\% | 2.2\% | 0.5 | 1.9 | 0.8 | 1.1 | 0.9 | 1.6 |
| 16 | 3.0\% | 3.9\% | 3.0\% | 2.5\% | 2.3\% | 2.0\% | 1.1 | 1.4 | 1.2 | 1.3 | 1.6 | 1.5 |
| 17 | 2.1\% | 2.2\% | 1.9\% | 1.7\% | 1.5\% | 1.7\% | 0.8 | 0.8 | 0.8 | 0.9 | 1.1 | 1.3 |
| 18 | 3.7\% | 4.1\% | 3.2\% | 2.6\% | 2.6\% | 2.0\% | 1.4 | 1.5 | 1.3 | 1.4 | 1.8 | 1.5 |
| 19 | 4.4\% | 4.4\% | 3.7\% | 3.3\% | 2.7\% | 2.3\% | 1.6 | 1.6 | 1.5 | 1.7 | 1.9 | 1.7 |
| 20 | 3.0\% | 3.0\% | 2.8\% | 2.5\% | 2.6\% | 3.0\% | 1.1 | 1.1 | 1.1 | 1.3 | 1.8 | 2.3 |
| 21 | 4.3\% | 3.9\% | 3.5\% | 0.8\% | 2.7\% | 1.8\% | 1.6 | 1.4 | 1.4 | 0.4 | 1.9 | 1.4 |
| 22 | 9.4\% | 8.5\% | 11.8\% | 0.0\% | 0.0\% | 0.0\% | 3.5 | 3.0 | 4.8 | 0.0 | 0.0 | 0.0 |
| 23 | 4.2\% | 4.3\% | 3.7\% | 2.8\% | 1.9\% | 1.5\% | 1.6 | 1.5 | 1.5 | 1.4 | 1.3 | 1.1 |
| 24 | 3.4\% | 3.4\% | 2.5\% | 2.2\% | 1.5\% | 1.3\% | 1.2 | 1.2 | 1.0 | 1.1 | 1.1 | 1.0 |
| 25 | 2.8\% | 2.6\% | 2.4\% | 1.7\% | 1.3\% | 1.2\% | 1.0 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 |
| 26 | 1.5\% | 1.6\% | 2.1\% | 1.9\% | 1.8\% | 2.1\% | 0.5 | 0.6 | 0.9 | 1.0 | 1.2 | 1.6 |
| 27 | 0.8\% | 0.9\% | 0.9\% | 0.8\% | 0.6\% | 0.5\% | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| 40 | 3.4\% | 2.6\% | 2.3\% | 1.9\% | 1.3\% | 1.4\% | 1.3 | 0.9 | 0.9 | 1.0 | 0.9 | 1.0 |
| 41 | 1.6\% | 1.8\% | 2.2\% | 1.6\% | 1.1\% | 1.2\% | 0.6 | 0.7 | 0.9 | 0.8 | 0.8 | 0.9 |
| 42 | 3.1\% | 3.3\% | 3.0\% | 3.2\% | 2.5\% | 1.9\% | 1.2 | 1.2 | 1.2 | 1.7 | 1.8 | 1.4 |
| 43 | 1.5\% | 1.9\% | 1.7\% | 1.3\% | 1.1\% | 1.0\% | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 |
| 44 | 2.3\% | 3.0\% | 3.3\% | 2.6\% | 2.2\% | 2.3\% | 0.9 | 1.1 | 1.3 | 1.4 | 1.6 | 1.7 |
| 45 | 3.1\% | 3.3\% | 2.8\% | 2.1\% | 1.5\% | 1.9\% | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.4 |
| 99 | 0.7\% | 0.7\% | 0.6\% | 0.6\% | 0.5\% | 0.3\% | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.2 |
| Tot | 1.9\% | 2.0\% | 1.9\% | 1.5\% | 1.1\% | 1.0\% | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |
| DOI Terr | 2.6\% | 2.7\% | 2.6\% | 2.2\% | 1.8\% | 1.9\% | 1.0 | 1.0 | 1.0 | 1.1 | 1.3 | 1.4 |

MEMORANDUM

To: Actuarial Committee
From: Tim Galligan
Financial Services Coordinator
Date: $\quad$ December 4, 2015
Re: $\quad$ AC 15.03 Exhibit \# 29 - Residual Market Share Summary - Cell Variations

Attached is an analysis of historical residual market share relativities to the statewide average requested by the Chairman. The relativities are shown for the current year vs. the prior year in credit cell variations as described below.

## Cells Remaining Creditless

These residual market share relativities are calculated using data for those class/territory cells that have no credit value in both the current and prior year.

## Non-Zero Credits That Stay the Same

These residual market share relativities are calculated using data for those class/territory cells that have the same credit factor in both the current and prior year.

## 0 Credit Cells That GAIN Credit

These residual market share relativities are calculated using data for those class/territory cells that have no credit value in the prior year and gain a credit in the current year.

## Credit Cells That LOSE Credit

These residual market share relativities are calculated using data for those class/territory cells that had a credit in the prior year and lose the entire credit in the current year.

## Existing Credit Cells with Increase

These residual market share relativities are calculated using data for those class/territory cells that have a credit in the prior year that is increased in the current year.

## Existing Credit Cells with Decrease

These residual market share relativities are calculated using data for those class/territory cells that have a credit in both years, with a lower credit in the current year.

The historical data and associated credit factors used in this exhibit are as follows:

## MAIP Year

2015-2016
2014-2015
2013-2014
2012-2013
2011-2012
2010-2011

## Data:

April, 2015 - Sept., 2015
Rolling 12 @ March, 2015
Rolling 12 @ March, 2014
Rolling 12 @ March, 2013
Rolling 12 @ March, 2012
Rolling 12 @ March, 2011

## Credit Factors

4/1/2015 Credits
4/1/2014 Credits
4/1/2013 Credits
4/1/2012 Credits
4/1/2011 Credits
4/1/2010 Credits

| Data Used | Credits Effective | MAIP Year | Cells Remaining Creditless |  |  |  | 0 Credit Cells that GAIN Credit |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { \# of } \\ \text { Cells } \end{gathered}$ | Res Mkt Ratio to Statewide Average |  |  | $\begin{gathered} \text { \# of } \\ \text { Cells } \end{gathered}$ | Res Mkt Ratio to Statewide Average |  |  |
|  |  |  |  | Previous | Current | Impact |  | Previous | Current | Impact |
| R12 @ 3/1/2011 | 4/1/2010 | 2010-11 | 129 | 0.63 | 0.68 | +7.9\% | 8 | 2.49 | 2.35 | -5.5\% |
| R12 @ 3/1/2012 | 4/1/2011 | 2011-12 | 171 | 0.70 | 0.72 | +3.8\% | 10 | 2.93 | 2.42 | -17.4\% |
| R12 @ 3/1/2013 | 4/1/2012 | 2012-13 | 177 | 0.72 | 0.75 | +3.4\% | 5 | 2.14 | 2.08 | -3.1\% |
| R12 @ 3/1/2014 | 4/1/2013 | 2013-14 | 172 | 0.75 | 0.78 | +4.9\% | 6 | 1.76 | 1.42 | -19.2\% |
| R12 @ 3/1/2015 | 4/1/2014 | 2014-15 | 178 | 0.79 | 0.79 | +0.3\% | 3 | 2.81 | 1.97 | -29.8\% |
| 4/15-9/15 | 4/1/2015 | 2015-16 | 191 | 0.81 | 0.77 | -3.9\% | 1 | 4.27 | 3.89 | -8.9\% |


| Data Used | Credits Effective | $\begin{aligned} & \hline \text { MAIP } \\ & \text { Year } \end{aligned}$ | Non-Zero Credits That Stay The Same |  |  |  | Credit Cells that LOSE ALL Credit |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { \# of } \\ & \text { Cells } \end{aligned}$ | Res Mkt Ratio to Statewide Average |  |  | $\begin{gathered} \text { \# of } \\ \text { Cells } \end{gathered}$ | Res Mkt Ratio to Statewide Average |  |  |
|  |  |  |  | Previous | Current | Impact |  | Previous | Current | Impact |
| R12 @ 3/1/2011 | 4/1/2010 | 2010-11 | 27 | 7.83 | 5.93 | -10.7\% | 52 | 1.22 | 1.12 | -8.0\% |
| R12@3/1/2012 | 4/1/2011 | 2011-12 | 99 | 3.43 | 3.22 | -6.2\% | 11 | 1.87 | 1.89 | +1.2\% |
| R12@3/1/2013 | 4/1/2012 | 2012-13 | 5 | 7.59 | 7.67 | +1.1\% | 1 | 1.65 | 2.36 | +43.0\% |
| R12 @ 3/1/2014 | 4/1/2013 | 2013-14 | 132 | 3.04 | 2.70 | -11.3\% | 9 | 1.68 | 1.73 | +3.2\% |
| R12 @ 3/1/2015 | 4/1/2014 | 2014-15 | 127 | 2.69 | 2.62 | -2.9\% | 14 | 1.59 | 1.85 | +16.4\% |
| 4/15-9/15 | 4/1/2015 | 2015-16 | 112 | 2.69 | 2.85 | +5.9\% | 22 | 1.57 | 1.77 | +12.6\% |


| Data Used | Credits Effective | MAIP Year | Existing Credit With Increase |  |  |  | Existing Credit With Decrease |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | \# of <br> Cells | Res Mkt Ratio to Statewide Average |  |  | $\begin{aligned} & \text { \# of } \\ & \text { Cells } \end{aligned}$ | Res Mkt Ratio to Statewide Average |  |  |
|  |  |  |  | Previous | Current | Impact |  | Previous | Current | Impact |
| R12 @ 3/1/2011 | 4/1/2010 | 2010-11 | 36 | 4.79 | 4.29 | -10.3\% | 88 | 3.20 | 2.97 | -7.3\% |
| R12 @ 3/1/2012 | 4/1/2011 | 2011-12 | 13 | 3.60 | 3.40 | -5.6\% | 36 | 4.17 | 4.00 | -3.9\% |
| R12 @ 3/1/2013 | 4/1/2012 | 2012-13 | 113 | 3.06 | 2.88 | -5.9\% | 39 | 6.34 | 6.26 | -1.2\% |
| R12 @ 3/1/2014 | 4/1/2013 | 2013-14 | 1 | 3.78 | 1.90 | -49.7\% | 20 | 6.24 | 5.10 | -18.2\% |
| R12 @ 3/1/2015 | 4/1/2014 | 2014-15 | 1 | 3.80 | 7.84 | +106.4\% | 17 | 7.98 | 8.66 | +8.5\% |
| 4/15-9/15 | 4/1/2015 | 2015-16 | 0 | 0.00 | 0.00 |  | 14 | 6.96 | 7.76 | +11.6\% |

NOTE: MAIP Year 2015-16 data covers 4/2015-9/2015 only. Previous year comparison is to 4/2014-9/2014.

## The Commonwealth of Massachusetts

Office of the Attorney General
One Ashburton Place
Boston, Massachusetts 02108
TEL: (617) 727-2200
Maura Healey

November 13, 2015
Governing Committee
Commonwealth Automobile Reinsurers
225 Franklin Street
Boston, MA 02110
Dear Members of the Governing Committee,
We are writing to express our concern regarding the Actuarial Committee's proposed reduction in quota share credits in certain territories in the Massachusetts Auto Insurance Plan ("MAIP").

Despite the depopulation of the residual market, a number of territories remain substantially overrepresented in the MAIP. These territories are generally low-income areas with significant minority populations. While the percentage of policyholders in these territories who are insured through the MAIP is small (for instance, over $90 \%$ of policyholders in Roxbury obtain insurance in the voluntary market), the territories still have more drivers trapped in the residual market than they should. This is particularly evident in territories where there are much higher proportions of MAIP risks than exist on average statewide. For example, the ratio of MAIP market share to statewide market share is $453 \%$ in Roxbury, $396 \%$ in Dorchester, $333 \%$ in Lawrence, 323\% in Hyde Park, 304\% in Chelsea, 226\% in Brockton, 226\% in Springfield, 218\% in Holyoke, $197 \%$ in Lowell, $184 \%$ in Lynn, and $166 \%$ in East Boston/Charlestown. ${ }^{1}$

Without change, the MAIP's existing credit quota share methodology will result in a substantial elimination and/or reduction of credits for most of the overrepresented territories. ${ }^{2}$ While we are pleased that CAR's Actuarial Committee is attempting to revise the existing quota share credit methodology so as to address this problem, we are concerned that the Committee's current proposal, which is estimated to reduce credit-eligible exposures overall by $23 \%$ compared to 2015 levels, will yield a significant decrease in credit eligible exposures in many of the overrepresented territories. Consequently, there is a serious risk that these territories will remain substantially overrepresented in the MAIP or become even more overrepresented in the MAIP. A number of carriers on the Actuarial Committee have expressed similar concerns.

[^19]General Laws Chapter 175, §113H, requires the development of a credit system in order to enhance the prospects that no classification or territory is disproportionally represented in the MAIP:

> To control the size of the population of the plan, the plan shall annually provide for territorial and classification credits for those companies voluntarily writing private passenger automobile insurance within those territories and classifications that would otherwise be disproportionately represented in the plan. The size of the credits shall be such as to enhance the prospects that no classification or territory is disproportionately represented in the plan. See G.L. c. $175, \S 113 H$

MAIP credits provide incentives for carriers to compete for business in credit-eligible territories. Removing and/or reducing credits could reduce that competition, resulting in higher premiums for policyholders in low-income communities and communities of color, many of whom already face high prices for auto insurance. A reduction in available credits could also leave more consumers in these communities in the residual market, which has a variety of disadvantages for those drivers. From a policyholder's perspective, being assigned to the MAIP means: (1) no choice of insurer, (2) fewer payment options, (3) higher installment, cancellation, and late payment fees, and (4) ineligibility for various policy benefits. The fact that the residual market share has decreased over time does not obviate the need (and statutory responsibility) to develop a system that has a reasonable chance of eliminating territorial overrepresentation in the residual market.

We urge CAR to carefully consider its statutory obligations and take steps to enhance the prospect that no classification or territory is disproportionately represented in the MAIP. If we can be of any assistance as CAR considers options related to these credits, please do not hesitate to contact me at 617-963-2453.

Sincerely,

Glenn Kaplan, Chief
Insurance \& Financial Services Division

## MEMORANDUM

## TO: CAR Governing Committee

FROM: Paula Gold

RE: Governing Committee Agenda Item 15.15<br>Actuarial Committee Proposed 2016 MAIP Quota Share Credit Offer

DATE: November 16, 2015

## Background

The 2016 credit proposal approved by the Actuarial Committee on October 7, 2015 is projected to reduce the number of credit-eligible exposures from a current level of 429,355 ( $9.6 \%$ of the market) to 332,145 ( $7.4 \%$ of the market) - a $22.6 \%$ reduction overall. The potential credit premium is similarly reduced - by $21.4 \%$.

These measures of the overall reduction in the credit offer, while unprecedented in scale, do not come close to telling the entire story. Because credits are mandated by statute to be set in a manner that will "enhance the prospects that no classification or territory is disproportionately represented in the plan," it is helpful to focus on the specific classifications and territories that have consistently been disproportionately represented in the MAIP.

The current 2015 credit offer is broadly consistent with the statutory goal. Of the 429,355 credit-eligible exposures, $3.9 \%$ of them are in the MAIP (September 2014-August 2015 data). Non-credit-eligible exposures are in the MAIP at a rate of $1.1 \%$. Therefore, credit-eligible exposures are 3.7 times as likely to be subject to an involuntary assignment as a whole than are the ineligible exposures. Credits today are certainly being offered where they are most needed.

The Commissioner of Insurance has - on two separate occasions ${ }^{1}$ - directed CAR to pay particular attention to eleven territories that, while comprising only $8.9 \%$ of the total market, currently make up $\mathbf{2 3 . 2 \%}$ of the MAIP. These eleven territories - Chelsea, Hyde Park, Dorchester, Roxbury, Charlestown/East Boston, Holyoke, Lowell, Springfield, Lynn, Lawrence, and Brockton - are now eligible for $76.8 \%$ of the available credits. They are clearly the focus of the credit offer, and yet they stand to lose credits at a rate significantly higher than the $22.6 \%$ overall statewide reduction in credits. Of the 121,047 people state-wide who will lose their credit eligibility if the Actuarial Committee's recommendation is adopted, 118,481 of these

[^20]people ( $97.9 \%$ ) live in one of these eleven territories. The result is a $35.1 \%$ overall credit reduction in these territories - more than $50 \%$ greater than the market as a whole.

The most extreme effect is concentrated in just three of the eleven territories - Lowell, Lynn, and Brockton. These are three eminently credit-worthy cities. Their relative levels of MAIP representation are 2.1, 2.9, and 2.3 respectively. A resident of any of these cities is at least twice as likely to be insured through the MAIP as other citizens of Massachusetts. And yet Lowell would lose $87.6 \%$ of its credits, Lynn would lose $88.0 \%$ of its credits, and Brockton would lose $87.6 \%$ of its credits. The total volume $-117,804$ people in these three territories no longer being helped by CAR's credit offer - make up virtually all of the 118,481 affected people noted above. And the people losing their credit eligibility are already 2.4 times as likely to be in MAIP as others. ${ }^{2}$

## Impact of Credits

The impact of credits goes well beyond simply addressing disproportionate representation in MAIP. Credits operate by making credit-eligible business significantly more attractive to insurers as voluntary than as involuntary business. As a result, companies have an incentive to actively compete for that business by entering into contracts with local agents in these territories. This provides greater access to the additional coverages and programs only available to voluntary customers, such as accident forgiveness, reduced deductibles, roadside assistance, and multiple payment plans. But by far, the most important impact of credits is that companies are able to offer lower voluntary rates to residents of credit-eligible territories than they would without the credits.

## Demographics

The disproportionately affected cities of Lowell, Lynn, and Brockton are low income, largely minority communities, with many disadvantages compared to the rest of the state. Poverty rates are well above the state average of $11.4 \%$, with Lowell at $19 \%$, Lynn at $21 \%$, and Brockton at $17.9 \%$. All three cities have significant foreign-born populations. They also have large numbers of households where a language other than English is spoken: $41.9 \%$ in Lowell, 44.5\% in Lynn, and $36.6 \%$ in Brockton, while the Massachusetts average is just $21.9 \%$. These cities also have lower percentages of high school and college graduates, lower rates of homeownership, lower property values, and higher levels of unemployment than the rest of the state. ${ }^{3}$

[^21]
## Conclusion

The $\mathbf{2 0 1 6}$ credit proposal approved by the Actuarial Committee resulted from significant efforts by the Committee and CAR Staff. While it may appear at a high level to be a sound methodology that should be satisfactory to all, it is important to look at how the methodology will impact the people on the ground. If the resuits are not in compliance with the statute, then the methodology must be adjusted.

It is apparent that this proposal will result in a disproportionate negative impact on the communities of Lowell, Lynn and Brockton by reducing credits in those communities by over $87 \%$. But these are exactly the types of communities that need credits in order to improve the opportunity for their residents to buy affordable auto insurance in the voluntary market, with the optional features available in the voluntary market. The statute requires that credits "enhance the prospects that no classification or territory is disproportionately represented in the plan." This credit proposal would actually do the opposite - it would enhance the prospect that territories like Lowell, Lynn and Brockton will be even more disproportionately represented in the MAIP than they are today. Therefore, I urge the Governing Committee to refine the Actuarial Committee's proposal by freezing the level of credits in Lowell, Lynn and Brockton at the same level they are at today.

Thank you for your consideration of these comments.

[^22]
## 11 TERRS. OF PARTICULAR INTEREST TO DOI

8.9\% of total exposures
$23.2 \%$ of MAIP exposures
$76.8 \%$ of credit-eligible exposures
$97.9 \%$ of exposures slated to lose credits
2.4 relative** MAIP usage in areas slated to lose credits

LOWELL, LYNN AND BROCKTON
3.5\% of total exposures
$7.1 \%$ of MAIP exposures
31.1\% of credit-eligible exposures
97.3\% of exposures slated to lose credits
2.4 relative** MAIP usage in areas slated to lose credits
${ }^{* *}$ relative to areas currently ineligible for credits


|  |  | 2015 Credit Offer |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Credit Eligible in 2015 |  |  | Ineligible in 2015 |  |  | Disproportionate Representation |
| Territory | Town(s) | Total Market Exposures | MAIP Exposures | MAIP <br> Usage Rate | Total Market Exposures | MAIP Exposures | MAIP <br> Usage <br> Rate |  |
| 1 | Various (40 towns) | 0 | 0 | \#N/A | 179,567 | 1,264 | 0.7\% | \#N/A |
| 2 | Various (33 towns) | 1,072 | 38 | 3.5\% | 240,463 | 1,717 | 0.7\% | 4.9 |
| 3 | Various (47 towns) | 2,359 | 93 | 4.0\% | 517,217 | 3,866 | 0.7\% | 5.3 |
| 4 | Various (24 towns) | 1,333 | 33 | 2.4\% | 328,606 | 2,336 | 0.7\% | 3.4 |
| 5 | Various (29 towns) | 2,994 | 156 | 5.2\% | 503,186 | 4,935 | 1.0\% | 5.3 |
| 6 | Various (21 towns) | 1,711 | 96 | 5.6\% | 337,053 | 3,574 | 1.1\% | 5.3 |
| 7 | Various (17 townis) | 13,398 | 429 | 3.2\% | 334,570 | 4,018 | 1.2\% | 2.7 |
| 8 | Various (11 towns) | 6,871 | 258 | 3.8\% | 192,207 | 2,266 | 1.2\% | 3.2 |
| 9 | Various (7 towns) | 8,906 | 305 | 3.4\% | 189,325 | 2,433 | 1.3\% | 2.7 |
| 10 | Various (3 towns) | 4.420 | 147 | 3.3\% | 91,391 | 1,372 | 1.5\% | 2.2 |
| 11 | Various (4 towns) | 628 | 30 | 4.8\% | 71,594 | 825 | 1.2\% | 4.1 |
| 12 | Various (6 towns) | 7,248 | 320 | 4.4\% | 187,020 | 2,775 | 1.5\% | 3.0 |
| 13 | Various (4 towns) | 18,036 | 853 | 4.7\% | 192,113 | 4,078 | 2.1\% | 2.2 |
| 14 | Various (3 towns) | 6,785 | 361 | 5.3\% | 65,700 | 1,360 | 2.1\% | 2.6 |
| 15 | Revere | 2,599 | 144 | 5.5\% | 23,048 | 456 | 2.0\% | 2.8 |
| 16 | CHELSEA | 12,418 | 521 | 4.2\% | 1,400 | 27 | 1.9\% | 2.2 |
| 17 | West Roxbury | 404 | 20 | 4.8\% | 16,865 | 267 | 1.6\% | 3.0 |
| 18 | Roslindale | 13,805 | 531 | 3.8\% | 2,214 | 41 | 1.9\% | 2.1 |
| 19 | Jamaica Plain | 506 | 38 | 7.5\% | 15,022 | 367 | 2.4\% | 3.1 |
| 20 | HYDE PARK | 14,820 | 753 | 5.1\% | 3,208 | 87 | 2.7\% | 1.9 |
| 21 | DORCHESTER | 46,304 | 2,599 | 5.6\% | 1,146 | 30 | 2.6\% | 2.2 |
| 22 | ROXBURY | 15,033 | 918 | 6.1\% | 0 | 0 | \#N/A | \#N/A |
| 23 | Boston Central | 2,900 | 162 | 5.6\% | 42,124 | 697 | 1.7\% | 3.4 |
| 24 | Brighton | 1,266 | 37 | 2.9\% | 23,410 | 356 | 1.5\% | 1.9 |
| 25 | South Boston | 512 | 29 | 5.7\% | 16,062 | 193 | 1.2\% | 4.8 |
| 26 | CHARLESTOWN + EAST BOSTON | 1,614 | 98 | 6.1\% | 19,745 | 404 | 2.0\% | 3.0 |
| 27 | Various (93 towns) | 1,668 | 45 | 2.7\% | 410,562 | 2,253 | 0.5\% | 4.9 |
| 40 | HOLYOKE | 16,626 | 497 | 3.0\% | 3,917 | 43 | 1.1\% | 2.7 |
| \% 411 絲 | LOWEH | $50 \mathrm{F31}$ - | W 1 13911 | 28\% | 8, 8,207 | 4,110 | 13\% | 2.1. |
| 42 | SPRINGFIELD | 59,710 | 1,705 | 2.9\% | 13,813 | 290 | 2.1\% | 1.4 |
| 24843 | LYNW | 40,019 | 10, 1136 | 28\% | 2,565 | W, \%3 ${ }^{\text {a }}$ | 10\% | 29.4 |
| 44 | LAWRENCE | 29,967 | 1,466 | 4.9\% | 3,812 | 81 | 2.1\% | 2.3 |
| 475 | BROCKION , \% , , \%, / | 42,896 | , 1418 | 3,3\% | 8045 | - 117 | 15\% | 23. |
| 99 | Out-of-State (7 regions) | 0 | 0 | \#N/A | 12,670 | 61 | 0.5\% | \#N/A |
| Total |  | 429,355 | 16,626 | 3.9\% | 4,062,847 | 42,772 | 1.1\% | 3.7 |
| 11 TER | RRS. OF PARTICULAR INTEREST TO DOI | 329,938 | 12,503 | 3.8\% | 70,858 | 1,261 | 1.8\% | 2.1 |
| WTHRE | MOST AFFECTED BY 2016 PROPOSAL | 133,446. | 3,945, | 3.0\% | 23,818 | 13300 | 113\% | 2.3. ${ }^{\text {a }}$ |


|  |  | 2016 Credit Offer |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Credit Eligible in 2016 |  |  | Ineligible in 2016 |  |  | Disproportionate Representation |
| Territory | Town(s) | Total <br> Market <br> Exposures$\|$ | $\begin{array}{\|c\|} \text { MAIP } \\ \text { Exposures } \end{array}$ | MAIP Usage Rate | Total <br> Market <br> Exposures$\|$ | MAIP <br> Exposures | MAIP <br> Usage <br> Rate |  |
| 1 | Various (40 towns) | 732 | 43 | 5.9\% | 178,835 | 1,221 | 0.7\% | 8.6 |
| 2 | Various (33 towns) | 1,072 | 38 | 3.5\% | 240,463 | 1,717 | 0.7\% | 4.9 |
| 3 | Various (47 towns) | 2,359 | 93 | 4.0\% | 517,217 | 3,866 | 0.7\% | 5.3 |
| 4 | Various (24 towns) | 0 | 0 | \#N/A | 329,939 | 2,369 | 0.7\% | \#N/A |
| 5 | Various (29 towns) | 2,994 | 156 | 5.2\% | 503,186 | 4,935 | 1.0\% | 5.3 |
| 6 | Various (21 towns) | 12,116 | 409 | 3.4\% | 326,647 | 3,261 | 1.0\% | 3.4 |
| 7 | Various (17 towns) | 13,398 | 429 | 3.2\% | 334,570 | 4,018 | 1.2\% | 2.7 |
| 8 | Various (11 towns) | 6,871 | 258 | 3.8\% | 192,207 | 2,266 | 1.2\% | 3.2 |
| 9 | Various (7 towns) | 8,206 | 291 | 3.6\% | 190,025 | 2,447 | 1.3\% | 2.8 |
| 10 | Various (3 towns) | 4,420 | 147 | 3.3\% | 91,391 | 1,372 | 1.5\% | 2.2 |
| 11 | Various (4 towns) | 2,417 | 76 | 3.2\% | 69,805 | 779 | 1.1\% | 2.8 |
| 12 | Various (6 towns) | 13,588 | 516 | 3.8\% | 180,680 | 2,579 | 1.4\% | 2.7 |
| 13 | Various (4 towns) | 18,036 | 853 | 4.7\% | 192,113 | 4,078 | 2.1\% | 2.2 |
| 14 | Various (3 towns) | 6,785 | 361 | 5.3\% | 65,700 | 1,360 | 2.1\% | 2.6 |
| 15 | Revere | 2,903 | 154 | 5.3\% | 22,744 | 446 | 2.0\% | 2.7 |
| 16 | CHELSEA | 12,418 | 521 | 4.2\% | 1,400 | 27 | 1.9\% | 2.2 |
| 17 | West Roxbury | 404 | 20 | 4.8\% | 16,865 | 267 | 1.6\% | 3.0 |
| 18 | Roslindale | 13,805 | 531 | 3.8\% | 2,214 | 41 | 1.9\% | 2.1 |
| 19 | Jamaica Plain | 895 | 55 | 6.2\% | 14,633 | 350 | 2.4\% | 2.6 |
| 20 | HYDE PARK | 15,357 | 778 | 5.1\% | 2,672 | 63 | 2.3\% | 2.2 |
| 21 | DORCHESTER | 46,304 | 2,599 | 5.6\% | 1,146 | 30 | 2.6\% | 2.2 |
| 22 | ROXBURY | 14,786 | 914 | 6.2\% | 246 | 4 | 1.6\% | 3.8 |
| 23 | Boston Central | 2,916 | 169 | 5.8\% | 42,109 | 690 | 1.6\% | 3.5 |
| 24 | Brighton | 1,973 | 67 | 3.4\% | 22,702 | 325 | 1.4\% | 2.4 |
| 25 | South Boston | 512 | 29 | 5.7\% | 16,062 | 193 | 1.2\% | 4.8 |
| 26 | CHARLESTOWN + EAST BOSTON | 1,572 | 99 | 6.3\% | 19,787 | 403 | 2.0\% | 3.1 |
| 27 | Various (93 towns) | 1,668 | 45 | 2.7\% | 410,562 | 2,253 | 0.5\% | 4.9 |
| 40 | HOLYOKE | 16,702 | 503 | 3.0\% | 3,840 | 37 | 1.0\% | 3.1 |
| 1814. | LowEL | 6257/ | -313, | 5.0\% | 52,481. | -1, 189 | 2.3\% | 22. |
| 42 | SPRINGFIELD | 60,585 | 1,726 | 2.8\% | 12,937 | 269 | 2.1\% | 1.4 |
| , 43 | Lraw |  | W<291. | 6.0\% | 42766 | 918 | 21\% | , 28.8 |
| 44 | LAWRENCE | 29,967 | 1,466 | 4.9\% | 3,812 | 81 | 2.1\% | 2.3 |
| 485 | BROCKTON , , , , , | -5,312 | , 396 | 74\% | 45,630 | 1139 | 25\% | 3.0. |
| 99 | Out-of-State (7 regions) | 0 | 0 | \#N/A | 12,670 | 61 | 0.5\% | \#N/A |
| Total |  | 332,145 | 14,346 | 4.3\% | 4,160,056 | 45,052 | 1.1\% | 4.0 |
| 11 TER | RRS. OF PARTICULAR INTEREST TO DOI | 214,079 | 9,606 | 4.5\% | 186,717 | 4,158 | 2.2\% | 2.0 |
| THRE | EMOSTAFFECIED BY 2016 PROPOSAL | 416,387 | 4, 999 ${ }^{\text {d/ }}$ | $6.1 \%$ | 140,877. | , 3,246 | 2.3\% | 26. |


| $\begin{aligned} & \text { Terri- } \\ & \text { tory } \end{aligned}$ | Town(s) | Changes to Credit Offer |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Net Change in CreditEligible Exposures |  | Net Change to Potential Credit Premium |  |  |
|  |  | Number | Percent |  | Dollars | Percent |
| 1 | Various (40 towns) | 732 | \#N/A | \$ | 1,363,855 | \#N/A |
| 2 | Various (33 towns) | 0 | +0.0\% | \$ | - | +0.0\% |
| 3 | Various (47 towns) | 0 | +0.0\% | \$ | - | +0.0\% |
| 4 | Various (24 towns) | -1,333 | -100.0\% |  | $(3,157,843)$ | -100.0\% |
| 5 | Various (29 towns) | 0 | +0.0\%. |  | - | +0.0\% |
| 6 | Various (21 towns) | 10,408 | +608.3\% |  | 14,542,102 | +328.0\% |
| 7 | Various (17 towns) | 0 | +0.0\% |  | - | +0.0\% |
| 8 | Various (11 towns) | 0 | +0.0\% |  | - | +0.0\% |
| 9 | Various (7 towns) | -700 | -7.9\% |  | $(1,323,344)$ | -8.0\% |
| 10 | Various (3 towns) | 0 | +0.0\% |  | - | +0.0\% |
| 11 | Various (4 towns) | 1,789 | +285.1\% |  | 3,623,753 | +174.1\% |
| 12 | Various (6 towns) | 6,340 | +87.5\% | \$ | 2,877,762 | +19.2\% |
| 13 | Various (4 towns) | , | +0.0\% | \$ | 2,87,162 | +0.0\% |
| 14 | Various (3 towns) | 0 | +0.0\% | \$ | - | +0.0\% |
| 15 | Revere | 304 | +11.7\% | \$ | 173,541 | +3.1\% |
| 16 | CHELSEA | 0 | +0.0\% | \$ | - | +0.0\% |
| 17 | West Roxbury | 0 | +0.0\% | \$ | $(85,587)$ | -8.9\% |
| 18 | Roslindale | 0 | +0.0\% | \$ | - | +0.0\% |
| 19 | Jamaica Plain | 389 | +76.8\% | \$ | 310,878 | +22.8\% |
| 20 | HYDE PARK | 537 | +3.6\% |  | 135,552 | +0.6\% |
| 21 | DORCHESTER | 0 | +0.0\% |  | $(1,333,346)$ | -1.4\% |
| 22 | ROXBURY | -246 | -1.6\% |  | $(1,260,783)$ | -3.9\% |
| 23 | Boston Central | 16 | +0.5\% |  | $(864,802)$ | -11.6\% |
| 24 | Brighton | 707 | +55.9\% |  | 1,217,313 | +46.2\% |
| 25 | South Boston | 0 | +0.0\% |  |  | +0.0\% |
| 26 | Charlestown + EASt boston | -42 | -2.6\% |  | $(1,149,544)$ | -26.8\% |
| 27 | Various (93 towns) | 0 | +0.0\% | \$ |  | +0.0\% |
| 40 | HOLYOKE | 76 | +0.5\% | 5 | $(85,836)$ | -0.4\% |
| 41 | LOWEL | 44,274 | -876\% |  | (49,100,129) | 820\% |
| 42 | SPRINGFIELD | 875 | +1.5\% |  | 1,904,363 | +2.0\% |
| 43 | UNN | 355201 | 888.0\% |  | , $155,275,675)$ | 838\% |
| 44 | LAWRENCE | 0 | +0.0\% | \$ | $(862,285)$ | -2.2\% |
| 45. | BROCKTON | -37,584 | -87.6\% |  | (65,968,242) | 80.2\% |
| 99 | Out-of-State (7 regions) | , | \#N/A | \% | - | \#N/A |
| Total |  | $(97,210)$ | -22.6\% |  | (154,318,297) | -21.4\% |
| 11 TERRS. OF PARTICULAR INTEREST TO DOI |  | (115,859) | -35.1\% |  | (172,995,925) | -32.1\% |
| THREE MOST AFFECTED BY 2016 PROPOSAL |  | (117,059) | 87.7\% |  | (170,344,046) | 81.9\% |


|  |  | Credit Losses |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Territory | Town(s) | Total Exposures Losing Credits | Exposures Currently in MAIP | MAIP Rate |
| 1 | Various (40 towns) | 0 | 0 | \#N/A |
| 2 | Various (33 towns) | 0 | 0 | \#N/A |
| 3 | Various (47 towns) | 0 | 0 | \#N/A |
| 4 | Various (24 towns) | 1,333 | 33 | 2.4\% |
| 5 | Various (29 towns) | 0 | 0 | \#N/A |
| 6 | Various (21 towns) | 0 | 0 | \#N/A |
| 7 | Various (17 towns) | 0 | 0 | \#N/A |
| 8 | Various (11 towns) | 0 | 0 | \#N/A |
| 9 | Various (7 towns) | 700 | 14 | 2.0\% |
| 10 | Various (3 towns) | 0 | 0 | \#N/A |
| 11 | Various (4 towns) | 0 | 0 | \#N/A |
| 12 | Various (6 towns) | 0 | 0 | \#N/A |
| 13 | Various (4 towns) | 0 | 0 | \#N/A |
| 14 | Various (3 towns) | 0 | 0 | \#N/A |
| 15 | Revere | 0 | 0 | \#N/A |
| 16 | CHELSEA | 0 | 0 | \#N/A |
| 17 | West Roxbury | 0 | 0 | \#N/A |
| 18 | Roslindale | 0 | 0 | \#N/A |
| 19 | Jamaica Plain | 0 | 0 | \#N/A |
| 20 | HYDE PARK | 0 | 0 | \#N/A |
| 21 | DORCHESTER | 0 | 0 | \#N/A |
| 22 | ROXBURY | 246 | 4 | 1.6\% |
| 23 | Boston Central | 214 | 0 | 0.1\% |
| 24 | Brighton | 319 | 2 | 0.6\% |
| 25 | South Boston | 0 | 0 | \#N/A |
| 26 | CHARLESTOWN + EAST BOSTON | 288 | 6 | 2.1\% |
| 27 | Various (93 towns) | 0 | 0 | \#N/A |
| 40 | HOLYOKE | 144 | 0 | 0.1\% |
| $41 \%$ |  | Vras,019 |  | $25 \%$ |
| 42 | SPRINGFIELD | 0 | 0 | \#N/A |
| V, 43 3 | LYNN | - 35,201\% | W845 | 24\% |
| 44 | LAWRENCE | 0 | 0 | \#N/A |
| 45. | BROCKION , , \%, | 4, 37,584 | 5, 1,022 | 27\% |
| 99 | Out-of-State (7 regions) | 0 | 0 | \#N/A |
| Total |  | 121,047 | 3,037 | 2.5\% |
| 11 TER | RRS. OF PARTICULAR INTEREST TO DOI | 118,481 | 2,989 | 2.5\% |
| TTHRE | EMOST AFFECTED BY 2016 PROPOSAL | 117,804 | , 2,978 | 2.5\%, |

President

## RECORDS OF MEETING

# ACTUARIAL COMMITTEE - DECEMBER 10, 2015 

## Members Present

Mr. Joseph F. Cofield - Chair<br>Mr. Geoffrey H. Arnold<br>Mr. Jonathan E. Blake<br>Mr. Alex F. Butensky<br>Mr. Christopher Dupill<br>Mr. Glenn R. Hiltpold<br>Mr. John V. Kelly<br>Mr. Michael Petrarca, Jr.<br>Ms. Lynellen Ramirez<br>Mr. John P. Tierney

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

Substituted for:
N/A
Not in Attendance:
Ms. Meredith M. Woodcock, Liberty Mutual Group

### 15.01 Records of Previous Meeting

The Committee unanimously voted to approve the Records of the Actuarial Committee meeting of October 7, 2015. The Records have been distributed and are on file with CAR's Secretary.

### 15.03 Quota Share Credits for Policies Effective April 1, 2016 and Later

CAR Counsel, Mr. Matthew Henning, advised the Committee relative to the Governing Committee remand of the recommended April 1, 2016 credit proposal to the Actuarial Committee to consider whether and to what extent the proposal complies with the statutory requirements of G.L. c. 175, §113H to enhance the prospects that no classification or territory is disproportionately represented in the plan. Mr. Henning noted that the remand was requested to give the Governing Committee a better understanding of the discussions at the Actuarial Committee level as to the consistency with the statute, establishing a record of the deliberations.

Mr. Henning also advised that in terms of meeting procedure, discussion is allowed for alternate credit proposals, but reminded the Committee that the primary task should be to consider whether and to what extent the current proposal complies with the statutory requirement.

Mr. Henning addressed the conflict of interest policy reviewed at the previous meeting. He noted that he has received questions regarding disclosure by those Committee members engaging in the buying and selling of excess credits. While company members may opt to disclose whether they engage in the transfer of excess credits, they are not precluded from discussion and vote on the credit offer.

Mr. Timothy Galligan reviewed an analysis of historical residual market shares by rate class and territory, as well as historical residual market share relativities to the statewide average, as requested by the Chair. Mr. Galligan also noted that attached to the agenda was correspondence from the Office of the Attorney General and Plymouth Rock Assurance Corporation relative to the April 1, 2016 and later credit offer, as presented to the Governing Committee at its November 18, 2015 meeting.

The Committee then began discussion regarding its credit proposal.
Mr. John Kelly noted his support for the Actuarial Committee’s original recommendation to the Governing Committee, the so-called "Relative Range" methodology. He observed that the majority of the $21.7 \%$ ( $\$ 169.5$ million) decrease to potential credit premium comes from the elimination of rate class 10 credits in Lowell, Lynn, and Brockton. Mr. Kelly noted that based on the latest year results, Lowell's rate class 10 residual market share is $2.48 \%$, Lynn's is $2.44 \%$, and Brockton's is $2.79 \%$. He opined that these results are not dramatically different from the statewide rate class 10 residual market share of $1.39 \%$.

Mr. Kelly addressed the 11 territories of interest previously noted by the Division of Insurance. He noted that some of the 11 territories have a proposed increase to potential credit premium, while others have a slight decrease. Further, he pointed out that the Actuarial Committee's recommendation continues to provide substantive credits for non-rate class 10 business in Lowell, Lynn, and Brockton.

Mr. Kelly also noted that last year's credit offer called for a reduction of $10.7 \%$ in credit premium, and the residual market continued to decrease, particularly in those 11 territories previously noted by the Division of Insurance. In fact, for rate class 10, the total residual market share decreased from $1.77 \%$ overall to $1.39 \%$. Mr. Kelly predicted that these improvements will continue. Mr. Jonathan Blake and Ms. Lynellen Ramirez agreed.

Ms. Ramirez stated that the Committee previously discussed and concluded that the proposal complies with the statute. She opined that there is no evidence that a reduction to credit premium will cause an increase in the residual market. In fact, the analysis shows no consistent pattern in the size of the residual market as it relates to past credit offers. Mr. Hiltpold agreed, noting that the current formula is self-correcting. If there was an upward swing in the residual market size, there would be an indication for more credits returning to the system.

Mr. Blake informed the Committee that he had considered tempering the Actuarial Committee's recommended credit premium decrease to approximately $-10 \%$ by offering partial credit factors valued at .5 in the three rate class 10 territories losing their credit factors. The Committee briefly discussed this idea.

Mr. Geoffrey Arnold noted that he believes the Actuarial Committee's proposal is not in compliance with the statute, as it does not appropriately identify those cells that are disproportionately represented in the residual market, and it eliminates credits in territories where they should remain or increase. He predicted that such decreases will result in consumers in those territories having more difficulty getting voluntary insurance at competitive market rates.

Mr. Arnold referenced the residual market share statistics discussed earlier, noting that historically, almost every cell had a residual market share increase where a credit was removed the prior year. Where a credit was offered, the residual market share was reduced. Mr. Arnold believes that the
historical data shows that the overwhelming impact of the use of credits is the reduction of disproportionate representation in the residual market.

After considerable discussion, Mr. John Tierney summarized the Committee's discussions to date and made a motion, which was seconded by Mr. Kelly, that the Actuarial Committee respond to the Governing Committee as follows:

1) The Actuarial Committee believes that its proposal complies with the statutory requirement regarding disproportionate representation in the involuntary market;
2) Over the course of several meetings to review market credits, the Committee was provided with copies of correspondence from the DOI to CAR pertaining to the DOI's interpretation of how the statutory requirement should be met;
3) The proposal from the Actuarial Committee compiled by CAR Staff was developed by emulating the approach taken by the DOI in a prior Decision on involuntary market credits recognizing that the involuntary market is much smaller today and that the standard for disproportionate representation thus needed to be recalibrated;
4) The Actuarial Committee notes that five years ago, there were 12 territories in which the residual market share was more than double that of the total market whereas today there are only seven such territories thus reducing the need for credit incentives in the market;
5) The Actuarial Committee believes that its proposal, in combination of the continuation of a healthy, open, competitive environment will lead to a continued depopulation of the residual market.

The motion passed with eight members in favor and one, Plymouth Rock, opposed.
The Committee directed staff to present the approved motion, along with the draft amendments to Rule 29 to the Governing Committee for consideration at its January 2016 meeting.

TIMOTHY F. GALLIGAN
Financial Services Coordinator

Boston, Massachusetts
January 7, 2016

## ATTACHMENT LISTING

Attendance Listing



Natalie A. Hubley President

## TRANSCRIPT OF

## SPECIAL GOVERNING COMMITTEE MEETING

A meeting of the Governing Committee was held at the offices of Commonwealth Automobile Reinsures, 225 Franklin Street, Boston, Massachusetts, on

WEDNESDAY, JANUARY 13, 2016 AT 10:30 A.M.

Committee Members present -
Mr. M. John Olivieri, Jr. - Chair
J.K. Olivieri Insurance Agency, Inc.

Mr. Paolo V. Abelli
Mr. William J. Cahill, Jr.
Mr. Thomas C. DePaulo
Mr. Christopher D. Dupill
Mr. Sumner D. Gilman
Ms. Paula W. Gold
Mr. James S. Heat
Mr. Christopher Jarrard
Mr. John V. Kelly
Mr. Joseph P. Leahy, Jr.
Ms. Marie-Armel Theodat
Mr. John P. Tierney
Substituted for:
N/A
Not in Attendance:
NA

Liberty Mutual Group
The Hanover Insurance Company
Meridian Insurance Agency, LLC
EM Freedman Insurance Agency, Inc.
Economy Insurance Agency, Inc.
Plymouth Rock Assurance Corporation
Arbella Insurance Group
GEICO
MAPFRE U.S.A. Corporation
Leahy \& Brown Insurance and Realty
R. Theodat Insurance Agency, Inc.

Quincy Mutual Group
(Meeting began at 10:30 a.m.)


I I


















GC
16.06 Actuarial Committee

Mr. Olivieri:
Ms. Hubley:

Actuarial Committee.
As you will recall, in November, the Governing Committee met to consider the Actuarial Committee's recommendation with respect to MAIP quota share credits. The recommendation would result in an estimated decrease of 22.6 percent to credit-eligible exposures and approximately 21.4 percent to available credit premium. After discussion, the Governing Committee remanded the proposal to the Actuarial Committee to consider whether, and to what extent, the proposal complies with the statutory requirement to enhance the prospects that no classification or territory is disproportionately represented in the plan. The remand was requested to give the Governing Committee a better understanding of the discussion at the Actuarial Committee level as to the consistency with the statute and establishing a record of its deliberations.

At their meeting in December, the Actuarial Committee observed that the majority of the decrease to the potential credits, from its recommendation, comes from the elimination of Rate Class 10 credits in Lowell, Lynn and Brockton. The residual market shares in these cells range from 2.5 percent to 2.8 percent as compared to the statewide Class 10 result of 1.4 percent. Also with respect to the 11 territories noted by the Division of Insurance in previous credit decisions, the Committee noted that the proposed credits offer an increase in some areas and slight decreases in others. Further, in Lowell, Lynn and Brockton, the recommendation continues to provide substantive credits for non-Rate Class 10 business. The Committee also noted that last year's credit offer called for a reduction of 10.7 percent in credit premium and the residual market continued to decrease particularly in those 11 territories.

After discussion, Mr. Arnold noted, however, that Plymouth Rock continues to believe that the Actuarial Committee proposal does not comply with the statute as it does not appropriately identify those cells that are disproportionately represented and it eliminates credits in territories where they should remain. He predicted that such decreases will result in consumers in those territories having more difficulty getting voluntary insurance at competitive market rates.

Mr. Olivieri:
After considerable discussion, the Committee, though, voted with eight members in favor and one opposed to respond to the Governing Committee's request as follows: The Actuarial Committee believes that its proposal complies with the statutory requirement regarding disproportionate representation in the involuntary market. Over the course of several meetings to review market credits, the Committee was provided with copies of correspondence from the Division of Insurance to CAR pertaining to the Division's interpretation of how the statutory requirement should be met. The proposal from the Actuarial Committee, compiled by CAR staff, was developed by emulating the approach taken by the Division in a prior decision on involuntary market credits recognizing that the involuntary market is much smaller today and that the standard for disproportionate representation thus needed to be recalibrated. The Actuarial Committee notes that five years ago there were 12 territories in which the residual market share was more than double that of the total market, whereas today there are only seven such territories thus reducing the need for credit incentives in the market.

Finally, the Actuarial Committee believes that its proposal, in combination with a continuation of a healthy, open, competitive environment, will lead to continued depopulation of the residual market. In light of that discussion, before you today for your consideration is the Actuarial Committee's initial recommendation with respect to credits for policies effective April 1, 2016 and later which, again, will result in an estimated decrease of 22.6 percent to credit-eligible exposures and 21.4 percent to available credit premium. Attached to the Additional Information that was distributed to the Governing Committee are the corresponding proposed Rule amendments that I can walk through with you if you like. But also included is a summary of the Committee's recommendation as well as the two letters, one from the Attorney General's Office and one from Plymouth Rock that was distributed at your last Governing Committee for your information. That would conclude my report. I'd open it up for questions.

This is an action item. So unless anybody has a question initially, I don't know if someone wants to make a - would like to make motion in favor of the Actuarial Committee's recommendation and go from there.

Mr. Tierney:
Mr. Chairman, I would like to make a disclosure before we get into a motion particularly for the benefit for the agency representatives around the table. I'm not sure everybody is aware, but under CAR Rules companies can buy and sell credits. That information is available on the CAR website but only to Member Companies. So, in the interest of full disclosure, I wanted the members around the table to know that my company, Quincy Mutual, has been for some time buying credits from other companies. We have not entered into any discussions with the companies that we buy credits from as to whether the approval of this proposal will restrict them from continuing to sell us credits. There is, perhaps, a risk of that. And if they are unable to continue to sell us credits we are okay with absorbing a greater share of the involuntary market or we will find an alternative company to buy credits from. This proposal may have an impact on our company. It may have an adverse

Mr. Olivieri:
Mr. Abelli:

Mr. Olivieri:
Mr. Cahill:

Mr. Olivieri:
Mr. Leahy:
Mr. Gilman:
Mr. Olivieri:
Ms. Gold:
impact on our company if we're not able to buy credits from someone else and have to take on more involuntary business. But we still believe that this is in the best interest of the motoring public which is why we will support this motion. But I wanted to have a full disclosure on the table.

Thank you very much. Paolo.
Along the lines of disclosure, I also wanted to disclose that Liberty engages in the buying and selling of credits like a lot of carriers around this table. I wanted to note that in the notes Mr. Henning addressed as conflict at the Actuarial Committee meeting and clarified that companies are not precluded from this discussion because of that. It's a shared interest. Frankly, every carrier shares, eventually, in the involuntary market in some way, shape or form as do agents, I would argue, in the sense that they end up working with companies and potentially handling assignments. I think it's a very shared interest, but I wanted to disclose that we also engage in the practice of buying and selling credits.

Thank you, Paolo. Bill.
Mr. Chairman, picking up on the same theme here to just disclose that the Hanover Insurance Company has participated similarly and has been, to my knowledge, a buyer of credits over the course of time. I just share that information with everyone as well.

Thank you very much. Joe.
I'd like to make a motion to adopt the Actuarial Committee's proposal.
Second.
We have a motion. We have a second. Any discussion? Paula.
I cannot support that motion. I'd like to address the assertions in the Actuarial Committee's motion that is attached to explain my reasoning for not being able to support that. I'm going to take them one by one. The first one is "The Actuarial Committee believes that its proposal complies with the statutory requirement regarding disproportionate representation in the involuntary market." We believe just the opposite. We believe that the proposal does not comply with the statutory requirement. The statute requires that CAR establish credits every year to "enhance the prospect that no classification or territory is disproportionately represented in the plan." The Attorney General's Office has provided guidance in its recent letter to us regarding what that means when the MAIP is small. In that letter it states, "The fact that the residual market share has decreased over time does not obviate the need and statutory responsibility to develop a system that has a reasonable chance of eliminating territorial overrepresentation in the residual market." The Attorney General noted in its correspondence that at least 11 territories are currently overrepresented in the MAIP and "there is a serious risk that these territories will remain substantially
overrepresented in the MAIP or become even more overrepresented in the MAIP." The proposal before us does nothing to address the Attorney General's concerns about these 11 territories. In fact, it reduces credits by more than 87 percent in three of those territories: Lowell, Lynn and Brockton.

The second point that was made in the motion that passed the Actuarial Committee was that "Over the course of several meetings to review market credits, the Committee was provided with copies of correspondence from the DOI to CAR pertaining to the DOI's interpretation of how the statutory requirement should be met." The correspondence from the DOI related to the credit offers for the 2010 and 2012 MAIP years. The MAIP is much smaller now. Those letters do not address what CAR should do when the MAIP is small but those letters are important to the extent that they identify 11 territories that need attention because they are overrepresented in the MAIP. The Attorney General provided guidance in its November $13^{\text {th }}$ letter to CAR in how to comply with the statute when the MAIP is small. Again, stating that regardless of the size of the MAIP, CAR still has a duty to "develop a system that has a reasonable chance of eliminating territorial overrepresentation in the residual market." The Attorney General noted that the 11 territories of concern to Commissioner Murphy in letters dated December 18, 2009 and December 19, 2011 are still overrepresented. The interesting thing to me is the Attorney General's letter was never discussed at the MAIP Committee meeting.

Three, "The proposal from the Actuarial Committee compiled by CAR Staff was developed by emulating the approach taken by the DOI in a prior Decision on involuntary market credits recognizing that the involuntary market is much smaller today and that the standard for disproportionate representation thus needed to be recalibrated." The response to that is the DOI's prior approach was developed when the MAIP was much larger than it is today. While the Committee modified that approach, it did not fully recalibrate it for current conditions. The result is that the Committee's proposal actually will increase the overrepresentation of several territories and fail to reduce the overrepresentation of others. Therefore, it fails to comply with the statute.

Number four, "The Actuarial Committee notes that five years ago, there were 12 territories in which the residual market share was more than double that of the total market whereas today there are only seven such territories thus reducing the need for credit incentives in the market." In response to that, I would say various parties have made assessments of the number of territories that are overrepresented in the MAIP. These assessments range from seven territories to 11. The Attorney General stated in its letter that there are 11 territories overrepresented with the East Boston/Charlestown territories at 166 percent of the statewide average, Roxbury at 453 percent of the statewide average and nine other territories in between. The exact number is not important because the statute says no territory should be overrepresented in MAIP. Therefore, whether it is seven or a higher number, the proposed Rule does not

Mr. Olivieri:
Mr. Kelly:

Mr. Olivieri:
Mr. Cahill:
comply with the statute because it does not enhance the prospects that no classification or territory is disproportionately represented in the plan.

The fifth point made in that motion is "The Actuarial Committee believes that its proposal, in combination of the continuation of a healthy, open, competitive environment will lead to a continued depopulation of the residual market." The issue is not the depopulation of the residual market in this case. The MAIP has been reduced to less than 2 percent of the market. The issue is that this proposal does nothing to address disproportionate representation in the MAIP. Not only does it fail to reduce existing disproportionate representation, but it will actually increase the disproportionate representation of several territories in direct violation of the statute. Moreover, credits are consistent with a healthy, open, competitive market and all companies are on a level playing field when it comes to credits.

Every company is free to have a strategy to write or not write credit business. The fact that some companies do not choose to do so does not change the fact that credits are beneficial to consumers and, in fact, the consumers who may most need it in this state and, in fact, are required by the statute. So, for the reasons that I stated, I can't accept the assertions that are made in the MAIP Committee's motion and I will vote against the motion.

Any other comments?
I support the motion. I think the Actuarial Committee has done a good job. I would like to just respond to some of those comments a little bit in that the Attorney General correspondence was provided to the Actuarial Committee. We discussed that document and the information contained within it. I think part of the recommendation that's coming from the Actuarial Committee even kind of addresses the issue. We went through and talked about the markets in these towns. I specifically brought up three specific towns that we talked about was a big drop in the credits. I think the Actuarial Committee did a fine job. We did review all the information that was provided to us in the second meeting and including the correspondence from Plymouth Rock and the Attorney General. So, I think that's important for the Committee to understand. I do support the Actuarial Committee's recommendation.

Bill.
Mr. Chairman, I'd just like to say that as folks will recall I was a proponent of returning the proposal back to the Actuarial Committee at our last Governing Committee meeting for further consideration. I did attend the Actuarial Committee meeting as an observer. Based upon that experience and the report that's been brought today, I'm comfortable with the proposal that's come back to us and the effort that was put forth by the Committee at their last meeting. I intend to vote in favor of the motion that's in front of us today. I do want to just thank the staff and the members of the Committee including the Governing Committee members that serve on the Actuarial Committee for their additional

|  | efforts because I do feel much more comfortable now in supporting the <br> proposal today. |
| :--- | :--- |
| Mr. Olivieri: | Paolo. |
| Mr. Abelli: | I also wanted to commend the Actuarial Committee for their work <br> debating this complicated issue. I, like Bill, was a proponent for sending <br> it back for that double check. I'm confident that the Actuarial <br> Committee thoroughly vetted the issue. That said, I will be voting <br> against this proposal. While I can see value in the current proposal, I <br> think we've been on Record before saying that the current mechanism <br> has been extraordinarily successful in shrinking the overall involuntary <br> market but we would like to see a proposal that unwinds credits more <br> slowly than this one. That is why I will be voting against it specifically <br> for that reason. |
| Mr. Olivieri: | OK. All those in favor? <br> Most Committee Members: <br> Aye. |
| Opposed? Three opposed, the remaining in favor. Motion carries. |  |
| (The Committee voted with nine in favor and Ms. Gold, Mr. Abelli and Ms. Theodat opposed) |  |

NATALIE HUBLEY
President
Note: This Transcript has not been approved. It will be considered for approval at the next meeting of the Governing Committee.

Boston, Massachusetts
January 29, 2016

The above proceedings have been transcribed in accordance with CAR's guidelines for producing quality transcripts, which provide for the elimination of insignificant material that does not alter the substance of the Committee's discussions, such as sidebar comments, the use of verbal fillers (i.e., uhm's and ah's), and commentary (i.e., "laughter" and "coughing").

## ATTACHMENT LISTING





[^0]:    ${ }^{1}$ Sections of the October 7, 2015 Records and the November 18, 2015 and January 13, 2016 Transcripts have been redacted as those agenda items are not a subject of this hearing.
    ${ }^{2}$ The October 7, 2015 Records and the January 13, 2016 Transcript have not been approved. They will be approved at the next meeting of the Actuarial Committee and Governing Committee, respectively.

[^1]:    $\begin{array}{lr}\text { Residual } & \text { Keep } \\ \text { Mark Shr } & \text { Out }\end{array}$

    | Mark Shr <br> Group | Out <br> Credits |
    | :---: | :---: |
    | 0 | 0.00 |
    | 1 | 1.00 |
    | 2 | 1.00 |
    | 3 | 1.00 |
    | 4 | 1.25 |
    | 5 | 1.50 |
    | 6 | 1.75 |
    | 7 | 2.00 |
    | 8 | 2.25 |
    | 9 | 2.50 |

    Highlighted 4/1/2015 Credit Eligible Cells

[^2]:    ${ }^{1}$ MAIP Rule 26.A. 3 sets out the conditions for MAIP eligibility, including the requirement that the "applicant, or any person who usually drives the motor vehicle has failed to pay an insurance company any

[^3]:    motor vehicle insurance premiums due or contracted during the preceding twelve months." CAR's proposed first paragraph incorrectly states the process for determining eligibility.
    ${ }^{2}$ In the event that the insurer to which money is owed has entered into a Limited Assignment Distribution Agreement ("LADA") under which another company handles some of its motor vehicle insurance business, for purposes of collecting owed premium the LADA would be considered a company with which the ARP places business.
    ${ }^{\frac{1}{3}}$ Eligible Risks who qualify for a payment plan are now required to make a premium deposit of 25 percent on new business or 20 percent on renewal business. CAR's proposed amendments do not change those percentages.
    ${ }^{4}$ The identical requirement is in the current CAR Rules and the proposed amendment. The amendment moves the text from Rule 28.C.1.b to 28.C.1.a.

[^4]:    ${ }^{5}$ Based on CAR data through December 14, 2009, approximately 93 percent of policies issued through the MAIP since April 1, 2009 are charged a premium that is lower than the MAIP premium quoted at the time of application.
    ${ }^{6}$ Section 113 E neither imposes nor prohibits a 100 percent requirement for a renewal premium.

[^5]:    ${ }^{7}$ Cession Volume Report, CAR Website.
    ${ }^{8}$ Operator classes 17,20 and 25 comprise principal operators licensed for six years or less; each class continues to be disproportionately represented in the residual market.

[^6]:    ${ }^{1}$ The Division further notes that to the extent proposed Rules 21.D. 3 and 21.D. 4 refer to whether a producer had a voluntary contract on a past date, these rules should read "...if the member did not have a voluntary contract...", rather than "if the member does not have a voluntary contract...".

[^7]:    ${ }^{1}$ See CAR Rule $29 . B$
    ${ }^{2}$ Liability is 20/40 bodily injury liability (coverage parts 1 and 5 ), $\$ 5,000$ property damage liability, $\$ 0$ deductible personal injury protection, and 20/40 uninsured vehicle.
    ${ }^{3}$ Based on data underlying residual market shares in CAR Docket \#AC11.03, Exhibit 11, page 9.

[^8]:    ${ }^{4}$ Both estimates are based on the total market exposure data underlying the market share in CAR Docket \#AC11.03, Exhibit 11, page 9. The residual market share used for the April 1, 2009 credit offer is from in CAR Docket \#AC08.06, Exhibit 7, page 7.
    ${ }^{5}$ While it may seem reasonable to specifically adjust credits for the operator class with the highest residual market share among credit eligible risks, there is a range of residual market share surrounding the averages for all classes.

[^9]:    ${ }^{6}$ Operators licensed more than six years who are under the age of 65 currently constitute approximately $70 \%$ of all credit eligible risks.
    ${ }^{7}$ See CAR Docket \#AC09.09, Exhibit 4, page 10.
    ${ }^{8}$ See CAR Docket \#AC10.06, Exhibit 1, page 6
    ${ }^{9}$ See CAR Docket \#AC11.03, Exhibit 11, page 9

[^10]:    ${ }^{10}$ Operators licensed more than six years who are under the age of 65 currently constitute approximately $70 \%$ of all credit eligible risks.
    ${ }^{11}$ See CAR Docket \#AC09.09, Exhibit 4, page 10.
    ${ }^{12}$ See CAR Docket \#AC10.06, Exhibit 1, page 6
    ${ }^{13}$ See CAR Docket \#AC11.03, Exhibit 11, page 9
    ${ }^{14}$ See CAR Docket \#AC09.09, Exhibit 4, page 10.
    ${ }^{15}$ See CAR Docket \#AC10.06, Exhibit 1, page 6

[^11]:    ${ }^{16}$ See CAR Docket \#AC11.03, Exhibit 11, page 9

[^12]:    * Selection Critieria.
    

[^13]:    * Selection Critieria:

[^14]:    Selection Critieria:
    a. If all indicated residual market share group equal in all three years, select that residual market share group .
    
    

[^15]:    ${ }^{1}$ Actuarial Committee: CAR Docket \#AC15.03, Exhibit \#13
    ${ }^{2}$ Actuarial Committee: CAR Docket \#AC15.03, Exhibit \#14

[^16]:    ${ }^{3}$ Actuarial Committee: CAR Docket \#AC15.03, Exhibit \#5

[^17]:    ${ }^{4}$ Actuarial Committee: CAR Docket \#AC15.03, Exhibit \#9 suggests that this trend may be reversing. An apples-to-apples comparison of April-May 2015 to April-May 2014 shows that the ratio of Credit-Eligible Residual Market Share to Non-Credit-Eligible Residual Market Share has risen from 3.5 to 3.9.

[^18]:    Allstate is hopeful this alternative is seriously considered as a means to retain most of what has worked so well over the last few years but that also recognizes that continued, predictable steps toward eliminating credits is likely the best course of action to promote a healthy and stable market.

[^19]:    ${ }^{\text {t }}$ This is computed based on year-ending March 2015 exposures and excludes motorcycle and miscellaneous classes. For example, the MAIP market share in Roxbury is $6.4 \%$, which is over four-and-one-half times ( $453 \%$ ) greater than the statewide MAIP market share of $1.4 \%$.
    ${ }^{2}$ The indicated reduction of eligible credits under the current credit methodology is the result of a decrease in the MAIP market share overall and for credit eligible territories.

[^20]:    ${ }^{1}$ Letters to CAR President dated December 18, 2009 and December 19, 2011 regarding proposed credit offers for the 2010 and 2012 CAR years, respectively.

[^21]:    ${ }^{2}$ Copies of CAR data relied on in this memo are attached.
    ${ }^{3}$ Demographic, educational, and economic data is drawn from the 2013 American Community Survey. See http://quickfacts.census.gov/qfd/states/25/2537000.html and http://quickfacts.census.gov/gfd/states/25/2537000ik.html for Lowell; http://quickfacts.census.gov/afd/states/25/2S37490.html and

[^22]:    http://quickfacts.census.gov/afd/states/25/2537490lk.html for Lynn; and http://quickfacts.census.gov/gfd/states/25/2509000.html and
    http://quickfacts.census.gov/afd/states/25/2509000lk.html for Brockton.

