

State: Pennsylvania **First Filing Company:** Liberty Insurance Corporation, ...
TOI/Sub-TOI: 19.0 Personal Auto/19.0000 Personal Auto Combinations
Product Name: Personal Automobile (LIC/LMFIC/TFLIC)
Project Name/Number: PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

Filing at a Glance

Companies: Liberty Insurance Corporation
 Liberty Mutual Fire Insurance Company
 The First Liberty Insurance Corporation
Product Name: Personal Automobile (LIC/LMFIC/TFLIC)
State: Pennsylvania
TOI: 19.0 Personal Auto
Sub-TOI: 19.0000 Personal Auto Combinations
Filing Type: Rate
Date Submitted: 06/01/2015
SERFF Tr Num: LBPM-130102958
SERFF Status: Assigned
State Tr Num:
State Status:
Co Tr Num: 15-PA-P-AO-R-LEG-ASR

Effective Date
Requested (New):
Effective Date 09/05/2015
Requested (Renewal):
Author(s): Melanie Bassler
Reviewer(s): Eric Zhou (primary), Michael McKenney (PC)
Disposition Date:
Disposition Status:
Effective Date (New):
Effective Date (Renewal):

State Filing Description:

State: Pennsylvania **First Filing Company:** Liberty Insurance Corporation, ...
TOI/Sub-TOI: 19.0 Personal Auto/19.0000 Personal Auto Combinations
Product Name: Personal Automobile (LIC/LMFIC/TFLIC)
Project Name/Number: PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

General Information

Project Name: PA LIC/LMFIC/TFLIC AO 2015 ASR

Project Number: 15-PA-P-AO-R-LEG-ASR

Reference Organization: N/A

Reference Title: N/A

Filing Status Changed: 06/02/2015

State Status Changed:

Created By: Melanie Bassler

Corresponding Filing Tracking Number: N/A

Status of Filing in Domicile: Not Filed

Domicile Status Comments: This is a Pennsylvania specific revision.

Reference Number: N/A

Advisory Org. Circular: N/A

Deemer Date:

Submitted By: Melanie Bassler

Filing Description:

In accordance with the "prior approval" provision, Liberty Mutual Fire Insurance Company (LMFIC), The First Liberty Insurance Corporation (TFLIC) and Liberty Insurance Corporation (LIC) are submitting for approval a rate filing impacting renewal business effective September 5, 2015.

The changes summarized below are accompanied by the corresponding rate and rule manual changes:

- 1.Base Rate Changes: Liability; Medical; Comprehensive, Collision, Underinsured, and Uninsured
- 2.Revised Rental rate

The overall rate effect of this filing is +1.5% for LMFIC, TFLIC and LIC.

Rating Manual Revisions:

R-1, 4, and 5 - Revised Base Rates

R-6 - Revised Rental Rate

Should you need any further information regarding this filing please contact me using the information below.

Sincerely,

Melanie Bassler

Compliance Analyst II

Melanie.Bassler@LibertyMutual.com

(603)354-9641

Company and Contact

Filing Contact Information

Melanie Bassler, Compliance Analyst II,

Melanie.Bassler@LibertyMutual.com

Regulatory Filing

62 Maple Ave.

800-826-6189 [Phone] 7889641 [Ext]

Keene, NH 03431

State: Pennsylvania **First Filing Company:** Liberty Insurance Corporation, ...
TOI/Sub-TOI: 19.0 Personal Auto/19.0000 Personal Auto Combinations
Product Name: Personal Automobile (LIC/LMFIC/TFLIC)
Project Name/Number: PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

Filing Company Information

Liberty Insurance Corporation	CoCode: 42404	State of Domicile: Illinois
175 Berkeley Street	Group Code: 111	Company Type:
Boston, MA 02116	Group Name: Liberty Mutual	State ID Number:
(617) 357-9500 ext. [Phone]	Group	
	FEIN Number: 03-0316876	

Liberty Mutual Fire Insurance	CoCode: 23035	State of Domicile: Wisconsin
Company	Group Code: 111	Company Type:
175 Berkeley Street	Group Name: Liberty Mutual	State ID Number:
Boston, MA 02116	Group	
(617) 357-9500 ext. [Phone]	FEIN Number: 04-1924000	

The First Liberty Insurance	CoCode: 33588	State of Domicile: Illinois
Corporation	Group Code: 111	Company Type:
175 Berkeley Street	Group Name: Liberty Mutual	State ID Number:
Boston, MA 02116	Group	
(617) 357-9500 ext. [Phone]	FEIN Number: 04-3058503	

Filing Fees

Fee Required? No
 Retaliatory? No
 Fee Explanation:

State Specific

*Filing Fee Amount: \$0
 *Date Filing Fee Mailed: N/A
 *Filing Fee Check Number: N/A
 *Filing Fee Check Date: N/A
 *NAIC Number: 0111-42404, 0111-23035, 0111-33588

SERFF Tracking #:

LBPM-130102958

State Tracking #:

Company Tracking #:

15-PA-P-AO-R-LEG-ASR

State: Pennsylvania

First Filing Company: Liberty Insurance Corporation, ...

TOI/Sub-TOI: 19.0 Personal Auto/19.0000 Personal Auto Combinations

Product Name: Personal Automobile (LIC/LMFIC/TFLIC)

Project Name/Number: PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

Rate Information

Rate data applies to filing.

Filing Method: Prior Approval

Rate Change Type: Increase

Overall Percentage of Last Rate Revision: 5.000%

Effective Date of Last Rate Revision: 09/05/2014

Filing Method of Last Filing: Prior Approval

Company Rate Information

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
Liberty Insurance Corporation	1.500%	1.500%	\$18,534	457	\$1,254,824	1.700%	1.100%
Liberty Mutual Fire Insurance Company	1.500%	1.500%	\$637,073	18,490	\$42,199,288	2.900%	0.000%
The First Liberty Insurance Corporation	1.500%	1.500%	\$1,291,249	38,264	\$85,303,890	2.600%	0.000%

SERFF Tracking #:

LBPM-130102958

State Tracking #:**Company Tracking #:**

15-PA-P-AO-R-LEG-ASR

State: Pennsylvania**First Filing Company:** Liberty Insurance Corporation, ...**TOI/Sub-TOI:** 19.0 Personal Auto/19.0000 Personal Auto Combinations**Product Name:** Personal Automobile (LIC/LMFIC/TFLIC)**Project Name/Number:** PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1		Territorial Base Rates	R-1	Replacement	LBPM-129525618	R-1.pdf
2		Uninsured Motorist Rates	R-4	Replacement	LBPM-129525618	R-4.pdf
3		Underinsured Motorist Rates	R-5	Replacement	LBPM-129525618	R-5.pdf
4		Comprehensive, Collision, Towing & Rental Rates	R-6	Replacement	LBPM-128960029	R-6.pdf

PENNSYLVANIA

Automobile Rating Manual

Territorial Base Rates							
Territory	\$35,000 Liability	\$5,000 Medical	\$10,000 Medical	\$1,500 Funeral Expense Benefits	Work Loss Benefits \$1,000 Per Month / \$5,000 Total	\$50 Deductible Comprehensive	\$500 Deductible Collision
001	1697	635	734	1	301	933	2512
002	1473	567	657	1	280	873	2176
003	626	179	207	1	86	263	1009
004	612	145	167	1	70	326	1150
005	615	222	257	1	102	266	1066
006	685	172	197	1	79	370	1199
007	676	204	236	1	96	295	1181
008	641	206	239	1	92	217	907
009	773	188	217	1	91	283	1129
010	713	179	207	1	85	262	1071
011	551	172	197	1	77	283	907
012	606	153	172	1	73	229	907
014	1411	615	715	1	288	699	1911
015	1249	486	562	1	241	580	1647
016	801	269	311	1	125	364	1283
017	592	175	202	1	84	294	1022
018	670	255	291	1	112	531	1421
019	617	175	202	1	84	491	1095
020	504	159	183	1	74	425	993
021	649	255	291	1	112	580	1263
022	654	168	193	1	79	335	1057
023	521	141	162	1	65	260	897
024	563	175	200	1	81	313	968
025	551	151	171	1	70	245	897
026	563	165	187	1	77	371	1089
027	556	141	162	1	65	209	901
028	505	124	145	1	61	209	805
029	657	215	249	1	99	547	1300
030	569	149	170	1	66	236	986
031	552	145	167	1	66	199	924
033	508	137	156	1	65	226	843
034	559	179	207	1	85	465	1006
038	649	201	232	1	96	351	1117
039	675	225	263	1	110	430	1108
040	508	168	193	1	79	274	936
041	634	186	214	1	91	295	1022
042	1155	453	525	1	217	386	1344
043	601	153	172	1	70	274	954
044	1031	397	457	1	195	349	1264
047	615	175	202	1	81	494	1132
048	457	129	150	1	62	429	963
049	597	190	218	1	91	414	1035
051	455	117	138	1	56	319	901
052	497	138	156	1	63	386	998
054	500	157	180	1	75	680	1079
055	488	146	168	1	66	628	1071
056	596	160	186	1	77	465	1158
057	534	154	175	1	74	313	1071
058	574	151	174	1	73	284	963
059	606	159	183	1	74	300	1019
060	724	255	291	1	111	416	1449
061	649	201	231	1	85	295	1066
065	994	288	332	1	139	326	1327
066	1147	426	491	1	199	437	1410
067	997	310	355	1	145	343	1181
070	659	188	217	1	92	294	965
071	503	146	168	1	66	323	954
076	613	193	221	1	92	411	933
077	606	179	210	1	85	337	948
078	586	186	213	1	85	383	914
079	631	198	227	1	92	369	915
081	650	193	221	1	92	481	1023
084	759	215	249	1	99	353	1164
085	835	175	202	1	81	293	1199
086	785	204	236	1	97	369	1146
087	890	269	311	1	125	311	1160
088	834	239	275	1	115	309	1093
089	1024	327	377	1	154	319	1176
092	869	210	242	1	98	285	1166
094	868	254	288	1	111	270	1144
096	795	222	259	1	112	285	1279
103	730	224	260	1	97	394	1333
104	658	193	220	1	92	354	1221
203	650	175	202	1	81	263	1050

PENNSYLVANIA
Automobile Rating Manual
Uninsured Motorist Rates

UM LIMIT	GROUP I				GROUP II			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>		<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0	0	0	0	0
15/30	186	186	148	151	64	64	51	52
25/50	233	233	175	177	80	80	58	60
35	206	206	155	177	72	72	53	56
50	235	235	186	192	81	81	64	65
50/100	251	251	204	207	86	86	72	74
100	256	256	207	215	88	88	74	75
100/300	291	291	232	235	102	102	80	81
300	308	308	258	265	107	107	89	91
250/500	342	342	274	280	119	119	94	95
500	358	358	310	313	124	124	107	109
1000	415	415	357	365	141	141	125	127

UM LIMIT	GROUP III				GROUP IV			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>		<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0	0	0	0	0
15/30	33	33	25	26	18	18	16	16
25/50	38	38	29	31	25	25	18	18
35	36	36	25	25	21	21	17	17
50	40	40	31	31	26	26	19	19
50/100	40	40	35	35	29	29	20	21
100	41	41	36	36	31	31	21	25
100/300	47	47	38	38	35	35	25	26
300	48	48	42	42	36	36	26	29
250/500	56	56	44	44	38	38	29	31
500	58	58	51	52	40	40	33	35
1000	65	65	58	60	42	42	37	38

UM LIMIT	GROUP V			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0
15/30	20	20	18	18
25/50	26	26	20	20
35	25	25	19	19
50	29	29	21	21
50/100	33	33	25	25
100	35	35	26	26
100/300	38	38	29	29
300	40	40	33	33
250/500	42	42	35	35
500	43	43	37	38
1000	44	44	41	42

Group	Territories
I	1, 2, 14, 15
II	42, 44, 65, 66, 67, 89, 96
III	16, 84, 85, 86, 87, 88, 92, 94
IV	3, 4, 6, 7, 9, 10, 12, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 34, 38, 39, 40, 41, 43, 47, 48, 49, 51, 52, 54, 55, 56, 57, 70, 71, 76, 78, 79, 81, 103, 104, 203
V	5, 8, 11, 18, 24, 58, 59, 60, 61, 77

PENNSYLVANIA

Automobile Rating Manual

Underinsured Motorist Rates

<u>UIM LIMIT</u>	GROUP I				GROUP II			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>		<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0	0	0	0	0
15/30	149	149	84	91	88	88	51	56
25/50	232	232	133	142	139	139	80	86
35	168	168	97	109	104	104	58	64
50	283	283	157	175	168	168	93	104
50/100	342	342	204	219	204	204	123	132
100	403	403	241	260	241	241	141	155
100/300	555	555	293	321	331	331	175	191
300	704	704	384	417	421	421	232	248
250/500	754	754	422	460	451	451	251	276
500	821	821	496	541	491	491	298	325
1000	1146	1146	676	734	685	685	402	437

<u>UIM LIMIT</u>	GROUP III				GROUP IV			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>		<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0	0	0	0	0
15/30	51	51	31	35	42	42	25	26
25/50	83	83	47	52	66	66	38	41
35	60	60	37	40	51	51	31	35
50	102	102	56	60	81	81	44	48
50/100	123	123	74	80	97	97	58	64
100	146	146	84	92	119	119	71	78
100/300	198	198	105	114	159	159	83	91
300	250	250	139	151	202	202	112	120
250/500	271	271	152	162	216	216	123	132
500	292	292	176	194	236	236	146	156
1000	406	406	241	260	330	330	195	207

<u>UIM LIMIT</u>	GROUP V			
	<u>STACKED</u> <u>LIMITED</u>		<u>UNSTACKED</u> <u>LIMITED</u>	
	Multi Car	Single Car	Multi Car	Single Car
REJECTED	0	0	0	0
15/30	47	47	26	33
25/50	78	78	43	47
35	58	58	36	37
50	93	93	53	57
50/100	114	114	66	74
100	135	135	80	86
100/300	183	183	94	103
300	233	233	127	138
250/500	247	247	139	152
500	272	272	162	180
1000	357	357	220	241

Group	Territories
I	1, 2, 14, 15
II	42, 44, 65, 66, 67, 89, 96
III	16, 84, 85, 86, 87, 88, 92, 94
IV	3, 4, 6, 7, 9, 10, 12, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 34, 38, 39, 40, 41, 43, 47, 48, 49, 51, 52, 54, 55, 56, 57, 70, 71, 76, 78, 79, 81, 103, 104, 203
V	5, 8, 11, 18, 24, 58, 59, 60, 61, 77

PENNSYLVANIA

Automobile Rating Manual

Comprehensive, Collision, Towing & Rental

Comprehensive	
Deductible	Factor
Full	1.31
50	1.00
100	.92
250	.72
500	.60
1,000	.48

Collision	
Deductible	Factor
100	1.45
200	1.27
250	1.21
500	1.00
1,000	.68

Towing	
Limit	Rate
50	8

Rental	
Rental	Rate
30/900	41
45/1350	71
60/1800	96

SERFF Tracking #:

LBPM-130102958

State Tracking #:

Company Tracking #:

15-PA-P-AO-R-LEG-ASR

State: Pennsylvania

First Filing Company: Liberty Insurance Corporation, ...

TOI/Sub-TOI: 19.0 Personal Auto/19.0000 Personal Auto Combinations

Product Name: Personal Automobile (LIC/LMFIC/TFLIC)

Project Name/Number: PA LIC/LMFIC/TFLIC AO 2015 ASR/15-PA-P-AO-R-LEG-ASR

Supporting Document Schedules

Bypassed - Item:	Authorization to File (PC)
Bypass Reason:	N/A
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	Actuarial Explanatory Memorandum & Supporting Exhibits (PC)
Comments:	
Attachment(s):	By Coverage Impact.pdf Filing Exhibits.xlsx Actuarial Justification.pdf Actuarial Justification NG.xlsm
Item Status:	
Status Date:	

Satisfied - Item:	Cover Letter
Comments:	
Attachment(s):	Legacy Cover Letter.pdf
Item Status:	
Status Date:	

Pennsylvania
Private Passenger Automobile
Rate Change and Dollar Effect

Rate Effect

Coverage	LMFIC	TFLIC	LIC	All Companies
BI/PD	1.5%	1.5%	1.5%	1.5%
UM	1.5%	1.5%	1.5%	1.5%
UIM	1.5%	1.5%	1.5%	1.5%
PIP	1.5%	1.5%	1.5%	1.5%
Total Liability	1.5%	1.5%	1.5%	1.5%
Comp	1.5%	1.5%	1.5%	1.5%
Coll	1.5%	1.5%	1.5%	1.5%
Rent. Reim.	2.7%	2.9%	1.9%	2.8%
Towing	0.0%	0.0%	0.0%	0.0%
Total Phys Dam	1.5%	1.5%	1.5%	1.5%
Overall	1.5%	1.5%	1.5%	1.5%

Dollar Effect

Coverage	LMFIC	TFLIC	LIC	All Companies
BI/PD	\$ 227,495	\$ 436,220	\$ 7,326	\$ 671,041
UM	\$ 19,730	\$ 43,966	\$ 300	\$ 63,996
UIM	\$ 64,242	\$ 134,033	\$ 1,157	\$ 199,432
PIP	\$ 62,253	\$ 120,858	\$ 1,958	\$ 185,069
Total Liability	\$ 373,720	\$ 735,077	\$ 10,741	\$ 1,119,539
Comp	\$ 59,870	\$ 120,608	\$ 1,624	\$ 182,102
Coll	\$ 189,659	\$ 400,621	\$ 5,898	\$ 596,178
Rent. Reim.	\$ 13,824	\$ 34,943	\$ 270	\$ 49,037
Towing	\$ -	\$ -	\$ -	\$ -
Total Phys Dam	\$ 263,353	\$ 556,172	\$ 7,792	\$ 827,317
Overall	\$ 637,073	\$ 1,291,249	\$ 18,534	\$ 1,946,856



Liberty Mutual
Personal Automobile
Pennsylvania
LMFIC/TFLIC/LIC
Summary of Rate Indications

Narrative

The most current rate level indication for Pennsylvania Automobile is +1.5% with a renewal business effective date of September 5, 2015.

Past and Prospective Experience Within and Outside the State

Calendar year earned premiums and accident year losses (incurred losses for Liability and paid losses for Physical Damage) are utilized in the indication. Three years of experience are used for both Liability and Physical Damage coverages beginning July 1, 2011 and ending June 30, 2014. Losses are evaluated as of June 30, 2014. The credibility weighted indications are +5.4% for Liability (See Exhibit I, Sheet 1) and -3.7% for Physical Damage (See Exhibit I, Sheet 2). The overall indication is +1.5%.

Liability and Physical Damage premiums are brought to current level by means of the parallelogram method. Liability premium is adjusted to reflect a reduction in the average on-leveled earned premium. Physical Damage premium is also adjusted to reflect the effects of Symbol Trend, Model Year and Deductible shift.

Exhibit IV shows the development of losses by accident year. Pennsylvania loss data was used to select loss development factors for all coverages.

For each coverage, two annual trend factors are selected. The historical trend factor trends losses from the midpoint of each year used in the experience period to the midpoint of the latest experience period. In this case, the midpoint of the latest experience period is January 1, 2014. The loss projection factor trends losses from the midpoint of the latest experience period to one year beyond the proposed effective date (i.e. average accident date of the proposed policy effective period). In this case, losses are trended to September 5, 2016. The loss trend selections are based on Liberty Fast Track data and are shown in Exhibit V.

Fixed expense ratios of 22.4% and 22.7%, as a percent of Earned Premium, were calculated for Liability and Physical Damage, respectively (See Exhibit VII) and then added to the developed and trended loss ratio to determine the overall indicated loss, fixed expense and loss adjustment expense ratio.

Catastrophic Hazards

A catastrophe load factor of 1.175 is selected based on the long-term catastrophe experience in Pennsylvania (See Exhibit VI). Catastrophe losses are removed from the Comprehensive loss experience and the data is then adjusted by including the selected catastrophe load.

Insurer Operating Expenses

Both Liability and Physical Damage incurred losses are adjusted to include all loss adjustment expenses. Based on Liberty Mutual Pennsylvania projections we have selected the LAE factors of 1.265 for non-MedPay Liability and 1.170 for Physical Damage.

The projected permissible loss, fixed expense and loss adjustment expense ratio for Liability is +83.9%. The projected permissible loss, fixed expense, and loss adjustment expense ratio for Physical Damage is +80.2% (see Exhibit VII).

Index of Exhibits

Exhibit	Description
I	Liability and Physical Damage Rate Level Indications
II	Premium Exhibit
III	Loss Exhibit
IV	Loss Development Triangles
V	Trend Analysis
VI	Catastrophe Provision Calculation
VII	Permissible Loss Ratio Calculation

Appendix A Automobile Profit Provision

Liberty Mutual Insurance
Pennsylvania
LMFIC/TFLIC/LIC
Combined Coverages Rate Level Indication

A) 1-Year Total Liability Earned Premium at Current Level and at Total Limits	99,955,307
B) 1-Year Total Physical Damage Earned Premium at Current Level	76,923,585
C) Total Earned Premium at Current Level: (A) + (B)	176,878,893
D) Total Liability Rate Indication (See Exhibit I, Sheet 1)	5.4%
E) Total Physical Damage Rate Indication (See Exhibit I, Sheet 2)	-3.7%
F) Overall Rate Indication	1.5%

Liberty Mutual Insurance
Pennsylvania
LMFIC/TFLIC/LIC
Total Limits Liability Rate Level Indication
Accident Period: 07/01/2011 to 06/30/2014

	3-Year Total
1) Total Limits Earned Premium at Collected Level (See Exhibit II)	
Bodily Injury	108,994,125
Property Damage	98,650,032
UM/UIM	78,736,859
PIP	59,844,688
Total Liability	<u>346,225,704</u>
2) Earned Premium at Current Level Including Premium Trend (See Exhibit II)	
Bodily Injury	118,200,977
Property Damage	106,983,107
UM/UIM	90,889,681
PIP	62,589,030
Total Liability	<u>378,662,795</u>
3) Total Limits Incurred Loss as of 06/14 (See Exhibit III)	
Bodily Injury	42,212,693
Property Damage	55,914,742
UM/UIM	18,061,861
PIP	25,010,488
Total Liability	<u>141,199,783</u>
4) Total Limits Ultimate Loss and LAE (See Exhibit III)	
Bodily Injury	73,344,236
Property Damage	73,552,663
UM/UIM	29,808,503
PIP	32,169,275
Total Liability	<u>208,874,678</u>
5) Total Limits Ultimate and Trended Loss and LAE (See Exhibit III)	
Bodily Injury	82,118,782
Property Damage	85,432,989
UM/UIM	33,529,421
PIP	28,620,224
Total Liability	<u>229,701,415</u>
6) Fixed Expenses (See Exhibit VII)	
Bodily Injury	22.3%
Property Damage	22.3%
UM/UIM	22.3%
PIP	22.3%
7) Indicated Loss, LAE and Fixed Expense Ratio [(5)/(2)+(6)]	
Bodily Injury	91.8%
Property Damage	102.2%
UM/UIM	59.2%
PIP	68.1%
8) Permissible Loss, LAE, and Fixed Expense Ratio (See Exhibit VII)	83.9%
9) Indicated Rate Change [(7)/(8) - 1]	
Bodily Injury	9.4%
Property Damage	21.8%
UM/UIM	-29.4%
PIP	-18.9%
10) Credibility	
Bodily Injury: Full Credibility Based on 3,000 BI Claims	94.0%
Property Damage: Full Credibility Based on 3,000 PD Claims	100.0%
UM/UIM: Full Credibility Based on 3,000 UM Claims	35.0%
PIP: Full Credibility Based on 3,000 PIP Claims	100.0%
11) Complement of Credibility (Average Loss Ratio Trend)	
Bodily Injury	14.3%
Property Damage	17.3%
UM/UIM	11.2%
PIP	0.0%
12) Credibility Weighted Rate Indication {(9)*(10) + (11)*[1-(10)]}	
Bodily Injury	9.7%
Property Damage	21.8%
UM/UIM	-3.0%
PIP	-18.9%
Total Liability (Weighted Average of Coverages. Weights = (2), Year Ending 06/30/2014)	<u>5.4%</u>

Liberty Mutual Insurance
Pennsylvania
LMFIC/TFLIC/LIC
Physical Damage Rate Level Indication
Accident Period: 07/01/2011 to 06/30/2014

	3-Year Total
1) Earned Premium at Collected Level (See Exhibit II)	
Comprehensive	59,313,319
Collision	<u>163,601,239</u>
Total	<u>222,914,558</u>
2) Earned Premium at Current Level Including Premium Trend (See Exhibit II)	
Comprehensive	74,190,653
Collision	<u>215,266,577</u>
Total	<u>289,457,230</u>
3) Paid Loss as of 06/14 (See Exhibit III)	
Comprehensive	27,782,772
Collision	<u>77,238,241</u>
Total	<u>105,021,013</u>
4) Ultimate Loss and LAE (See Exhibit III)	
Comprehensive	38,527,425
Collision	<u>88,738,627</u>
Total	<u>127,266,051</u>
5) Ultimate and Trended Loss and LAE (See Exhibit III)	
Comprehensive	45,841,421
Collision	<u>112,373,666</u>
Total	<u>158,215,087</u>
6) Fixed Expenses (See Exhibit VII)	
Comprehensive	22.6%
Collision	22.6%
7) Indicated Loss, LAE and Fixed Expense Ratio [(5)/(2)+(6)]	
Comprehensive	84.4%
Collision	74.8%
8) Permissible Loss, LAE, and Fixed Expense Ratio (See Exhibit VII)	80.2%
9) Indicated Rate Change [(7)/(8) - 1]	
Comprehensive	5.2%
Collision	-6.7%
10) Credibility	
Comprehensive: Full Credibility Based on 3,000 Comprehensive Claims	100.0%
Collision: Full Credibility Based on 3,000 Collision Claims	100.0%
11) Complement of Credibility (Average Loss Ratio Trend)	
Comprehensive	6.7%
Collision	9.4%
12) Credibility Weighted Rate Indication {(9)*(10) + (11)*[1-(10)]}	
Comprehensive	5.2%
Collision	<u>-6.7%</u>
Total Physical Damage (Weighted Average of Coverages. Weights = (2), Year Ending 06/30/2014)	<u>-3.7%</u>

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Earned Premium
Accident Period: 07/01/2011 to 06/30/2014
Data Evaluated as of: 06/30/2014

Calculation of Trended Earned Premium at Current Rate Level
LMFIC/TFLIC/LIC

Bodily Injury

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	42,633,936	1.272	54,234,980	0.882	47,843,175	0.40
07/01/12 to 06/30/13	36,263,132	1.178	42,718,219	0.914	39,050,476	0.33
07/01/13 to 06/30/14	30,097,058	1.098	33,049,135	0.947	31,307,326	0.26
Total	108,994,125		130,002,333		118,200,977	

Property Damage

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	38,587,760	1.272	49,087,806	0.882	43,302,616	0.40
07/01/12 to 06/30/13	32,821,577	1.178	38,664,044	0.914	35,344,388	0.33
07/01/13 to 06/30/14	27,240,695	1.098	29,912,605	0.947	28,336,102	0.26
Total	98,650,032		117,664,455		106,983,107	

UM

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	30,095,082	1.258	37,858,494	0.973	36,852,390	0.41
07/01/12 to 06/30/13	26,422,627	1.178	31,114,538	0.973	30,287,657	0.33
07/01/13 to 06/30/14	22,219,150	1.098	24,398,021	0.973	23,749,634	0.26
Total	78,736,859		93,371,053		90,889,681	

PIP

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	23,660,801	1.275	30,157,801	0.841	25,348,640	0.41
07/01/12 to 06/30/13	19,860,342	1.183	23,494,163	0.880	20,678,146	0.33
07/01/13 to 06/30/14	16,323,545	1.101	17,970,946	0.922	16,562,244	0.26
Total	59,844,688		71,622,910		62,589,030	

Comprehensive

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	22,374,081	1.245	27,862,613	1.076	29,971,816	0.40
07/01/12 to 06/30/13	19,825,773	1.161	23,011,344	1.065	24,508,223	0.33
07/01/13 to 06/30/14	17,113,465	1.092	18,691,824	1.055	19,710,614	0.27
Total	59,313,319		69,565,782		74,190,653	

Collision

Experience Period	Earned Premium	On-Level Factors	Earned Premium @ Current Level	Premium Trend Factor	Trended Earned Premium @ Current Level	Weights
07/01/11 to 06/30/12	60,721,700	1.270	77,091,589	1.126	86,818,266	0.40
07/01/12 to 06/30/13	54,751,057	1.178	64,519,585	1.104	71,235,340	0.33
07/01/13 to 06/30/14	48,128,483	1.098	52,855,568	1.082	57,212,972	0.27
Total	163,601,239		194,466,743		215,266,577	

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Loss Experience
Accident Period: 07/01/2011 to 06/30/2014
Data Evaluated as of: 06/30/2014
LMFIC/TFLIC/LIC
Incurred Loss Method
Losses Developed to Ultimate

Bodily Injury Total Limits

Experience Period	Incurred Loss	Loss Development			Trend Factor	Trended Developed		Weights
		Factor	LAE Load	Developed Loss & LAE		Loss & LAE		
07/01/11 to 06/30/12	21,501,814	1.119	1.265	30,428,351	1.148	34,942,714	0.40	
07/01/12 to 06/30/13	13,097,824	1.343	1.265	22,240,021	1.115	24,795,689	0.33	
07/01/13 to 06/30/14	7,613,054	2.147	1.265	20,675,864	1.082	22,380,378	0.26	
Total	42,212,693			73,344,236		82,118,782		

Property Damage

Experience Period	Incurred Loss	Loss Development			Trend Factor	Trended Developed		Weights
		Factor	LAE Load	Developed Loss & LAE		Loss & LAE		
07/01/11 to 06/30/12	23,352,175	0.999	1.265	29,511,617	1.201	35,457,575	0.40	
07/01/12 to 06/30/13	18,646,583	1.005	1.265	23,700,686	1.155	27,380,640	0.33	
07/01/13 to 06/30/14	13,915,984	1.156	1.265	20,340,361	1.111	22,594,774	0.26	
Total	55,914,742			73,552,663		85,432,989		

UMBI/UIM

Experience Period	Incurred Loss	Loss Development			Trend Factor	Trended Developed		Weights
		Factor	LAE Load	Developed Loss & LAE		Loss & LAE		
07/01/11 to 06/30/12	9,678,513	1.119	1.265	13,696,574	1.148	15,728,603	0.41	
07/01/12 to 06/30/13	6,539,875	1.343	1.265	11,104,665	1.115	12,380,736	0.33	
07/01/13 to 06/30/14	1,843,474	2.147	1.265	5,006,587	1.082	5,419,329	0.26	
Total	18,061,861			29,807,826		33,528,668		

PIP

Experience Period	Incurred Loss	Loss Development			Trend Factor	Trended Developed		Weights
		Factor	LAE Load	Developed Loss & LAE		Loss & LAE		
07/01/11 to 06/30/12	10,712,226	1.006	1.265	13,627,927	0.867	11,817,388	0.41	
07/01/12 to 06/30/13	7,994,944	1.020	1.265	10,311,587	0.894	9,218,186	0.33	
07/01/13 to 06/30/14	6,303,318	1.032	1.265	8,229,761	0.922	7,584,649	0.26	
Total	25,010,488			32,169,275		28,620,224		

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Loss Experience
Accident Period: 07/01/2011 to 06/30/2014
Data Evaluated as of: 06/30/2014
LMFIC/TFLIC/LIC
Paid Loss Method
Losses Developed to Ultimate

Comprehensive xCat

Experience Period	Paid Loss	Loss Development			Developed Loss & LAE	Trend Factor	Trended Developed	
		Factor	LAE Load	CAT Load			Loss & LAE	Weights
07/01/11 to 06/30/12	11,238,059	0.999	1.170	1.175	15,439,796	1.241	19,153,662	0.40
07/01/12 to 06/30/13	9,181,828	0.999	1.170	1.175	12,610,033	1.181	14,898,316	0.33
07/01/13 to 06/30/14	7,362,884	1.035	1.170	1.175	10,477,596	1.125	11,789,443	0.27
Total	27,782,772				38,527,425		45,841,421	

Collision

Experience Period	Paid Loss	Loss Development			Developed Loss & LAE	Trend Factor	Trended Developed	
		Factor	LAE Load	Loss & LAE			Loss & LAE	Weights
07/01/11 to 06/30/12	30,712,933	0.998	1.170	35,853,392	1.330	47,691,275	0.40	
07/01/12 to 06/30/13	25,124,948	0.993	1.170	29,200,866	1.255	36,643,635	0.33	
07/01/13 to 06/30/14	21,400,360	0.946	1.170	23,684,368	1.184	28,038,757	0.27	
Total	77,238,241			88,738,627		112,373,666		

**Liberty Mutual Insurance
Pennsylvania
Bodily Injury/UM Bodily Injury/UIM Bodily Injury - Total Limits Incurred Losses**

Acc Year/ Age	Maturity														
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Jul1999-Jun2000	14,186,441	22,260,933	25,011,012	26,553,365	26,374,139	27,267,998	28,249,767	27,918,426	28,087,432	28,290,612	28,297,157	28,297,157	28,302,157	28,267,157	28,265,038
Jul2000-Jun2001	14,788,032	20,638,969	22,398,262	23,909,679	25,238,586	25,854,809	26,063,044	26,322,540	26,336,815	26,352,815	26,352,815	26,452,815	26,629,558	26,629,558	
Jul2001-Jun2002	13,835,281	17,773,691	21,398,175	24,202,282	26,254,662	26,728,913	27,093,084	27,121,449	27,116,648	27,116,648	27,113,848	27,112,970	27,110,570		
Jul2002-Jun2003	11,330,323	16,423,340	19,743,550	23,570,256	24,686,157	25,031,000	25,555,810	25,888,310	25,695,943	25,590,444	25,601,310	25,826,810			
Jul2003-Jun2004	8,335,383	15,277,180	21,147,237	23,455,850	25,238,472	25,357,223	25,339,629	25,318,331	25,326,933	25,318,806	25,327,756				
Jul2004-Jun2005	18,788,942	30,491,123	37,519,220	41,443,397	41,916,792	42,460,033	42,462,151	42,383,935	42,321,513	42,321,717					
Jul2005-Jun2006	21,430,717	37,154,647	45,277,801	47,023,650	47,861,312	48,353,861	48,401,317	48,359,835	48,418,523						
Jul2006-Jun2007	19,656,956	30,555,947	37,112,588	39,584,994	39,518,947	40,382,771	40,277,928	40,516,067							
Jul2007-Jun2008	23,104,534	34,166,252	41,499,493	42,295,323	44,738,502	44,712,283	45,305,544								
Jul2008-Jun2009	22,403,271	33,124,485	37,147,442	42,113,190	44,234,155	44,827,670									
Jul2009-Jun2010	20,978,275	29,793,688	38,784,867	41,710,764	42,565,336										
Jul2010-Jun2011	17,720,190	31,629,846	36,964,933	40,682,835											
Jul2011-Jun2012	19,602,083	33,885,847	40,716,514												
Jul2012-Jun2013	22,120,381	37,864,799													
Jul2013-Jun2014	22,167,577														

	Age to Age Factors														
	12 - 24	24 - 36	36 - 48	48 - 60	60 - 72	72 - 84	84 - 96	96 - 108	108 - 120	120 - 132	132 - 144	144 - 156	156 - 168	168 - 180	180-ult
Jul1999-Jun2000	1.569	1.124	1.062	0.993	1.034	1.036	0.988	1.006	1.007	1.000	1.000	1.000	0.999	1.000	
Jul2000-Jun2001	1.396	1.085	1.067	1.056	1.024	1.008	1.010	1.001	1.001	1.000	1.004	1.007	1.000		
Jul2001-Jun2002	1.285	1.204	1.131	1.085	1.018	1.014	1.001	1.000	1.000	1.000	1.000	1.000			
Jul2002-Jun2003	1.450	1.202	1.194	1.047	1.014	1.021	1.013	0.993	0.996	1.000	1.009				
Jul2003-Jun2004	1.833	1.384	1.109	1.076	1.005	0.999	0.999	1.000	1.000	1.000					
Jul2004-Jun2005	1.623	1.230	1.105	1.011	1.013	1.000	0.998	0.999	1.000						
Jul2005-Jun2006	1.734	1.219	1.039	1.018	1.010	1.001	0.999	1.001							
Jul2006-Jun2007	1.554	1.215	1.067	0.998	1.022	0.997	1.006								
Jul2007-Jun2008	1.479	1.215	1.019	1.058	0.999	1.013									
Jul2008-Jun2009	1.479	1.121	1.134	1.050	1.013										
Jul2009-Jun2010	1.420	1.302	1.075	1.020											
Jul2010-Jun2011	1.785	1.169	1.101												
Jul2011-Jun2012	1.729	1.202													
Jul2012-Jun2013	1.712														
Selected	1.599	1.200	1.070	1.025	1.010	1.003	1.001	1.000	1.000	1.000	1.003	1.002	0.999	1.000	1.000
To Ultimate	2.147	1.343	1.119	1.045	1.020	1.010	1.006	1.005	1.005	1.005	1.005	1.002	0.999	1.000	1.000

**Liberty Mutual Insurance
Pennsylvania
PIP - Incurred Losses**

Acc Year/ Age	Maturity														
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Jul1999-Jun2000	7,801,628	8,450,108	8,824,298	8,576,505	8,581,920	8,643,269	8,668,954	8,682,945	8,746,514	8,752,732	8,748,584	8,774,023	8,773,711	8,773,711	8,773,711
Jul2000-Jun2001	7,418,753	7,768,536	7,731,855	7,752,918	7,765,013	7,766,960	7,783,882	7,787,938	7,783,942	7,784,541	7,785,187	7,785,187	7,785,187	7,785,187	
Jul2001-Jun2002	7,241,386	7,189,366	7,263,740	7,378,311	7,429,530	7,426,620	7,393,036	7,506,161	7,504,108	7,691,877	7,717,433	7,712,868	7,706,864		
Jul2002-Jun2003	6,929,327	7,009,689	7,274,802	7,219,666	7,372,099	7,398,670	7,364,227	7,372,356	7,373,931	7,373,931	7,373,931	7,373,931	7,373,642		
Jul2003-Jun2004	7,104,875	7,318,647	7,716,391	7,673,971	7,645,640	7,641,045	7,764,023	7,772,285	7,772,285	7,772,285	7,662,770	7,662,770			
Jul2004-Jun2005	12,486,117	12,953,831	13,050,818	13,336,858	13,344,543	13,317,728	13,277,761	13,264,921	13,280,781	13,276,999					
Jul2005-Jun2006	14,996,014	15,935,545	16,290,960	16,231,874	16,409,395	16,686,119	16,620,735	16,596,575	16,590,767						
Jul2006-Jun2007	13,409,173	14,445,400	14,647,433	14,812,967	14,816,437	14,786,029	14,845,502	14,814,580							
Jul2007-Jun2008	16,382,641	16,161,013	16,280,370	16,341,416	16,311,000	16,345,224	16,333,244								
Jul2008-Jun2009	13,673,958	14,751,010	15,234,459	15,157,270	15,283,743	15,351,383									
Jul2009-Jun2010	16,586,083	15,659,488	16,094,206	16,038,174	16,084,962										
Jul2010-Jun2011	16,741,470	16,338,116	16,248,981	16,638,275											
Jul2011-Jun2012	14,395,898	14,622,995	14,712,778												
Jul2012-Jun2013	13,875,869	14,861,532													
Jul2013-Jun2014	14,405,269														

	Age to Age Factors														
	12 - 24	24 - 36	36 - 48	48 - 60	60 - 72	72 - 84	84 - 96	96 - 108	108 - 120	120 - 132	132 - 144	144 - 156	156 - 168	168 - 180	180-ult
Jul1999-Jun2000	1.083	1.044	0.972	1.001	1.007	1.003	1.002	1.007	1.001	1.000	1.003	1.000	1.000	1.000	
Jul2000-Jun2001	1.047	0.995	1.003	1.002	1.000	1.002	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	
Jul2001-Jun2002	0.993	1.010	1.016	1.007	1.000	0.995	1.015	1.000	1.025	1.003	0.999	0.999			
Jul2002-Jun2003	1.012	1.038	0.992	1.021	1.004	0.995	1.001	1.000	1.000	1.000	1.000				
Jul2003-Jun2004	1.030	1.054	0.995	0.996	0.999	1.016	1.001	1.000	0.986	1.000					
Jul2004-Jun2005	1.037	1.007	1.022	1.001	0.998	0.997	0.999	1.001	1.000						
Jul2005-Jun2006	1.063	1.022	0.996	1.011	1.017	0.996	0.999	1.000							
Jul2006-Jun2007	1.077	1.014	1.011	1.000	0.998	1.004	0.998								
Jul2007-Jun2008	0.986	1.007	1.004	0.998	1.002	0.999									
Jul2008-Jun2009	1.079	1.033	0.995	1.008	1.004										
Jul2009-Jun2010	0.944	1.028	0.997	1.003											
Jul2010-Jun2011	0.976	0.995	1.024												
Jul2011-Jun2012	1.016	1.006													
Jul2012-Jun2013	1.071														
Selected	1.012	1.014	1.002	1.003	1.001	0.999	1.000	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.000
To Ultimate	1.032	1.020	1.006	1.004	1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Calculation of Loss Trend Factors
LMFIC/TFLIC/LIC
Historical Loss Trend Factors

	BI	PD	UMBI	UMPD	PIP	COMP	COLL
Selected Annual Historical Pure Premium Trend :	3.0%	4.0%	3.0%	4.0%	-3.0%	5.0%	6.0%

Experience Period	Trend From	Trend To	Trend Period	BI Loss Trend Factor	PD Loss Trend Factor	UMBI Loss Trend Factor	UMPD Loss Trend Factor	PIP Loss Trend Factor	Comp Loss Trend Factor	Coll Loss Trend Factor
07/01/11 to 06/30/12	1/1/2012	1/1/2014	2.00	1.061	1.082	1.061	1.082	0.941	1.103	1.124
07/01/12 to 06/30/13	1/1/2013	1/1/2014	1.00	1.030	1.040	1.030	1.040	0.970	1.050	1.060
07/01/13 to 06/30/14	1/1/2014	1/1/2014	0.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Loss Projection Factors

	BI	PD	UMBI	UMPD	PIP	COMP	COLL
Selected Annual Projected Pure Premium Trend :	3.0%	4.0%	3.0%	4.0%	-3.0%	4.5%	6.5%

Experience Period	Trend From	Trend To	Trend Period	BI Loss Trend Factor	PD Loss Trend Factor	UMBI Loss Trend Factor	UMPD Loss Trend Factor	PIP Loss Trend Factor	Comp Loss Trend Factor	Coll Loss Trend Factor
All	1/1/2014	9/5/2016	2.68	1.082	1.111	1.082	1.111	0.922	1.125	1.184

Combined Loss Trend Factors

Experience Period	BI Loss Trend Factor	PD Loss Trend Factor	UMBI Loss Trend Factor	UMPD Loss Trend Factor	PIP Loss Trend Factor	Comp Loss Trend Factor	Coll Loss Trend Factor
07/01/11 to 06/30/12	1.148	1.201	1.148	1.201	0.867	1.241	1.330
07/01/12 to 06/30/13	1.115	1.155	1.115	1.155	0.894	1.181	1.255
07/01/13 to 06/30/14	1.082	1.111	1.082	1.111	0.922	1.125	1.184

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Calculation of Premium Trend Factors
LMFIC/TFLIC/LIC
Historical Premium Factors

	BI	PD	UM	PIP	Comp	Collision
Selected Annual Historical Premium Trend:	-3.5%	-3.5%	0.0%	-4.5%	1.0%	2.0%

Experience Period	Trend From	Trend To	Trend Period	BI Premium Trend Factor	PD Premium Trend Factor	UM Premium Trend Factor	PIP Premium Trend Factor	Comp Premium Trend Factor	Coll Premium Trend Factor
07/01/11 to 06/30/12	1/1/2012	1/1/2014	2.00	0.931	0.931	1.000	0.912	1.020	1.040
07/01/12 to 06/30/13	1/1/2013	1/1/2014	1.00	0.965	0.965	1.000	0.955	1.010	1.020
07/01/13 to 06/30/14	1/1/2014	1/1/2014	0.00	1.000	1.000	1.000	1.000	1.000	1.000

Premium Projection Factors

	BI	PD	UM	PIP	Comp	Collision
Selected Annual Projected Premium Trend:	-2.0%	-2.0%	-1.0%	-3.0%	2.0%	3.0%

Experience Period	Trend From	Trend To	Trend Period	BI Premium Trend Factor	PD Premium Trend Factor	UM Premium Trend Factor	PIP Premium Trend Factor	Comp Premium Trend Factor	Coll Premium Trend Factor
All	1/1/2014	9/5/2016	2.68	0.947	0.947	0.973	0.922	1.055	1.082

Combined Premium Trend Factors

Experience Period	BI Premium Trend Factor	PD Premium Trend Factor	UM Premium Trend Factor	PIP Premium Trend Factor	Comp Premium Trend Factor	Coll Premium Trend Factor
07/01/11 to 06/30/12	0.882	0.882	0.973	0.841	1.076	1.126
07/01/12 to 06/30/13	0.914	0.914	0.973	0.880	1.065	1.104
07/01/13 to 06/30/14	0.947	0.947	0.973	0.922	1.055	1.082

**Pennsylvania
Fast Track Trend Data
Industry**

4 Qtrs. Ending		Bodily Injury				Property Damage			Personal Injury Protection				Collision			Comprehensive		
Year	Qtr.	Paid Severity	Arising Freq.	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium	Paid Severity	Arising Freq.	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium
2010	1	18,270	1.02%	0.50%	90.85	2,771	3.45%	95.57	4,168	1.90%	1.47%	61.25	2,586	6.20%	160	1,150	5.14%	59.11
2010	2	18,627	1.04%	0.50%	93.32	2,758	3.46%	95.35	4,177	1.90%	1.46%	61.19	2,580	6.22%	161	1,158	5.44%	62.98
2010	3	18,550	1.04%	0.50%	93.56	2,765	3.48%	96.23	4,171	1.90%	1.47%	61.12	2,598	6.30%	164	1,194	5.58%	66.64
2010	4	18,570	1.03%	0.51%	93.98	2,769	3.50%	96.92	4,223	1.92%	1.46%	61.53	2,595	6.31%	164	1,240	5.57%	69.03
2011	1	18,884	1.02%	0.51%	97.23	2,786	3.50%	97.40	4,201	1.91%	1.44%	60.50	2,631	6.30%	166	1,236	5.68%	70.24
2011	2	18,476	1.00%	0.52%	96.17	2,823	3.47%	98.03	4,212	1.91%	1.43%	60.24	2,657	6.30%	167	1,290	5.89%	76.03
2011	3	18,583	0.98%	0.52%	97.23	2,858	3.43%	98.07	4,194	1.91%	1.43%	59.86	2,686	6.27%	168	1,342	6.05%	81.23
2011	4	18,719	0.97%	0.52%	97.48	2,880	3.46%	99.65	4,170	1.90%	1.41%	58.69	2,723	6.37%	173	1,347	6.28%	84.56
2012	1	18,449	0.97%	0.52%	95.45	2,929	3.44%	100.67	4,185	1.92%	1.41%	58.82	2,722	6.21%	169	1,372	6.23%	85.46
2012	2	18,646	0.97%	0.51%	95.41	2,935	3.44%	101.04	4,171	1.92%	1.40%	58.24	2,750	6.20%	171	1,333	5.63%	75.06
2012	3	18,877	0.96%	0.51%	95.58	2,929	3.47%	101.74	4,214	1.90%	1.38%	58.17	2,748	6.23%	171	1,322	5.48%	72.41
2012	4	19,053	0.94%	0.50%	95.62	2,958	3.41%	100.85	4,168	1.86%	1.38%	57.70	2,744	6.12%	168	1,420	5.24%	74.37
2013	1	19,153	0.93%	0.50%	95.13	2,973	3.39%	100.84	4,089	1.84%	1.38%	56.31	2,810	6.21%	175	1,436	5.11%	73.36
2013	2	19,377	0.93%	0.49%	95.18	2,999	3.41%	102.28	4,069	1.84%	1.37%	55.76	2,828	6.26%	177	1,439	5.15%	74.05
2013	3	19,588	0.95%	0.49%	95.18	3,036	3.42%	103.80	4,041	1.84%	1.36%	55.06	2,836	6.31%	179	1,406	4.97%	69.95
2013	4	19,629	0.96%	0.48%	94.19	3,064	3.44%	105.30	4,093	1.85%	1.35%	55.20	2,850	6.41%	183	1,341	4.97%	66.65
2014	1	20,163	0.96%	0.47%	94.90	3,067	3.48%	106.69	4,169	1.85%	1.33%	55.50	2,853	6.66%	190	1,348	5.13%	69.14

FITTED TREND

1-Yr (5 pts)	4.74	-3.92	-5.11	-0.61	3.42	2.34	5.84	1.80	0.30	-3.29	-1.54	1.54	6.74	8.38	-7.62	-1.03	-8.57
2-Yr (9 pts)	4.08	-0.86	-4.40	-0.50	2.69	0.08	2.77	-1.20	-2.26	-2.35	-3.52	2.63	2.92	5.63	0.54	-8.66	-8.16
3-Yr (13 pts)	2.46	-2.05	-3.28	-0.90	3.10	-0.39	2.70	-1.00	-1.63	-2.35	-3.33	2.74	0.83	3.60	2.79	-7.02	-4.43
4-Yr (17 pts)	1.85	-2.61	-1.41	0.41	2.96	-0.36	2.59	-0.63	-1.04	-2.39	-3.00	2.84	0.55	3.41	4.89	-2.72	2.05

**Pennsylvania
Fast Track Trend Data
Personal Lines**

4 Qtrs. Ending		Bodily Injury				Property Damage			Personal Injury Protection				Collision			Comprehensive		
Year	Qtr.	Paid Severity	Arising Freq.	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium	Paid Severity	Arising Freq.	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium	Paid Severity	Paid Freq.	Paid Pure Premium
2010	1	19,204	1.02%	0.52%	100.41	2,555	3.81%	97.30	3,864	1.90%	1.57%	60.85	2,965	5.55%	164.43	1,126	4.43%	49.93
2010	2	19,394	1.01%	0.52%	101.26	2,545	3.87%	98.53	3,809	1.89%	1.59%	60.74	3,009	5.58%	167.97	1,120	4.76%	53.28
2010	3	18,946	1.00%	0.49%	93.47	2,508	3.88%	97.35	3,782	1.88%	1.66%	62.95	3,030	5.58%	168.95	1,117	4.99%	55.71
2010	4	19,284	0.95%	0.49%	94.24	2,508	3.90%	97.84	3,777	1.83%	1.68%	63.31	2,996	5.54%	166.09	1,173	4.93%	57.83
2011	1	18,248	0.95%	0.51%	92.16	2,560	3.98%	101.92	3,731	1.82%	1.63%	60.87	3,022	5.55%	167.67	1,159	5.01%	58.02
2011	2	18,148	0.95%	0.55%	100.50	2,626	3.93%	103.07	3,915	1.79%	1.57%	61.42	3,047	5.61%	170.93	1,167	5.02%	58.53
2011	3	17,980	0.95%	0.62%	111.10	2,646	3.90%	103.24	3,962	1.78%	1.53%	60.62	3,065	5.71%	174.90	1,277	5.13%	65.56
2011	4	19,168	0.97%	0.66%	125.96	2,680	3.91%	104.82	4,000	1.82%	1.47%	58.85	3,104	5.86%	181.98	1,251	5.36%	67.03
2012	1	20,096	0.99%	0.66%	133.24	2,700	3.84%	103.60	3,951	1.78%	1.50%	59.14	3,208	5.67%	181.80	1,240	5.29%	65.60
2012	2	20,035	1.00%	0.62%	123.25	2,723	3.79%	103.20	3,815	1.83%	1.52%	58.11	3,202	5.72%	183.10	1,234	4.93%	60.82
2012	3	20,639	1.00%	0.56%	116.15	2,793	3.78%	105.59	3,843	1.83%	1.47%	56.58	3,280	5.72%	187.46	1,175	4.77%	56.04
2012	4	18,816	0.94%	0.52%	98.68	2,835	3.69%	104.67	3,681	1.80%	1.51%	55.69	3,300	5.59%	184.44	1,386	4.61%	63.85
2013	1	17,613	0.95%	0.50%	87.95	2,940	3.70%	108.68	3,460	1.84%	1.49%	51.49	3,358	5.85%	196.58	1,453	4.47%	64.93
2013	2	18,275	0.99%	0.53%	96.34	2,928	3.81%	111.54	3,439	1.83%	1.48%	50.99	3,349	5.93%	198.67	1,450	4.48%	64.97
2013	3	18,493	1.02%	0.56%	104.10	2,991	3.85%	115.25	3,423	1.84%	1.49%	51.06	3,265	5.99%	195.54	1,444	4.36%	62.91
2013	4	18,012	1.11%	0.59%	106.86	3,031	3.95%	119.65	3,520	1.84%	1.53%	53.77	3,266	6.02%	196.50	1,272	4.29%	54.58
2014	1	18,275	1.13%	0.61%	111.11	2,992	4.00%	119.75	3,733	1.84%	1.50%	56.09	3,193	6.27%	200.06	1,297	4.48%	58.10
2014	2	17,839	1.09%	0.59%	105.57	3,088	3.94%	121.60	3,826	1.79%	1.49%	57.13	3,205	6.28%	201.12	1,798	5.33%	95.82

FITTED TREND

1-Yr (5 pts)	-2.38	12.89	13.12	10.43	4.38	4.24	8.81	12.74	-1.83	0.88	13.72	-4.32	6.52	1.91	13.76	16.20	32.19
2-Yr (9 pts)	-5.62	7.80	3.00	-2.79	5.90	3.39	9.49	-1.17	-0.22	0.02	-1.14	-0.84	5.60	4.72	11.43	-0.28	11.12
3-Yr (13 pts)	-1.88	5.16	-2.20	-4.03	5.85	0.40	6.27	-3.64	0.63	-0.64	-4.26	1.94	3.37	5.38	8.54	-4.39	3.77
4-Yr (17 pts)	-1.27	2.89	2.70	1.39	5.64	-0.15	5.48	-1.97	-0.34	-2.44	-4.36	2.55	2.83	5.45	7.97	-2.56	5.21

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
All Companies
Comprehensive Catastrophe Load Calculation

Accident Year Ending	Total Paid Comp Loss	XCat Paid Comp Loss	Total/XCat Ratio
Jul1999-Jun2000	9,330,156	8,929,284	1.045
Jul2000-Jun2001	9,528,386	8,972,382	1.062
Jul2001-Jun2002	7,788,372	7,601,052	1.025
Jul2002-Jun2003	7,673,293	7,570,073	1.014
Jul2003-Jun2004	8,421,098	8,128,318	1.036
Jul2004-Jun2005	12,366,564	11,511,295	1.074
Jul2005-Jun2006	13,124,104	12,555,708	1.045
Jul2006-Jun2007	13,821,139	13,222,705	1.045
Jul2007-Jun2008	14,205,054	12,860,372	1.105
Jul2008-Jun2009	14,463,477	13,863,662	1.043
Jul2009-Jun2010	15,779,880	13,140,889	1.201
Jul2010-Jun2011	16,206,975	13,768,334	1.177
Jul2011-Jun2012	18,150,368	15,492,222	1.172
Jul2012-Jun2013	20,796,680	16,817,633	1.237
Jul2013-Jun2014	28,813,923	17,426,754	1.653

Selected Cat Provision 1.175

Liberty Mutual Insurance
Private Passenger Automobile
Pennsylvania
Permissible Loss Ratio Calculation
Projected Expenses
(As a Percentage of Earned Premium)

Liability	Total	Variable	Fixed
Commission	0.8%	0.8%	0.0%
Other Acquisition	19.3%	4.7%	14.6%
General	3.3%	0.0%	3.3%
Tax	2.6%	2.6%	0.0%
Profit	8.0%	8.0%	0.0%
Total Expense Ratio	34.0%	16.1%	17.9%
Total Trended Expense Ratio	38.5%	16.1%	22.4%
Target Loss & Fixed Exp Ratio			83.9%

Physical Damage	Total	Variable	Fixed
Commission	0.7%	0.7%	0.0%
Other Acquisition	19.5%	4.7%	14.8%
General	3.4%	0.0%	3.3%
Tax	2.5%	2.5%	0.0%
Profit	11.9%	11.9%	0.0%
Total Expense Ratio	37.9%	19.8%	18.2%
Total Trended Expense Ratio	42.5%	19.8%	22.7%
Target Loss & Fixed Exp Ratio			80.2%

Liberty Mutual Insurance

Private Passenger Automobile

Countrywide Profit Provision

As Liberty Mutual Insurance is organized under a mutual holding company system, our company has limited recourse to stock market capitalization to generate needed surplus funds, unlike a publicly-traded insurance company or an insurance company with a publicly-traded parent. Any increase in surplus must come from (1) underwriting profit, (2) investment income, (3) realized capital gains, or (4) unrealized capital gains. In the following analysis, Liberty Mutual selects provisions for underwriting profit which will ensure that anticipated income from all sources produces net income after taxes that is commensurate with the risk assumed in the business of property/casualty insurance. Furthermore, these provisions ensure that projected changes in policyholder surplus are sufficiently similar (in direction and magnitude) to changes in premium accounts so that confidence in the Companies' financial integrity can be maintained.

Exhibit A shows a history of calendar year rates of return for investment income expressed as a percentage of mean invested assets. The primary source is interest, dividends, and real estate income shown in column (3). Based on the current market yield, it is reasonable to anticipate before tax returns of 3.3% from interest, dividends, and real estate income during the time rates are effective. Historically, realized capital gains have contributed very little to earnings. For the prospective period, we select 0.3% from this source. In total, our anticipated pre-tax return is 3.6%. We believe this a reasonable return given the current interest rate environment. After federal income taxes, the total anticipated rate of return is 2.7% of invested assets.

Exhibit B presents the investment income derived from unearned premium reserves. The model uses historical information, modified for the current tax rate. This income is separated into two categories. First, there are premium finance charges [Line 10] collected by allowing policyholders to pay their premiums in installments over the 12-month policy term. Line 3 is the corresponding portion of the unearned premium reserve representing the premium which is being financed by the company. Second, there is the remaining reserve, after prepaid expense and taxes, [Line 7] which develops income based on the anticipated rate of return.

Exhibit C applies the rate of return to mean loss and loss adjustment expense reserves. These exhibits relate investment income to premium earned. Exhibit D provides pertinent expense data to calculate the Permissible Loss Ratio. Exhibit E deals with the calculation of federal income taxes applicable to unearned premium and loss reserves.

Income from all of the above sources is combined with our selected underwriting profit provisions in the following 2 to 1 premium-to-surplus model:

Let Premium = \$100; Surplus = \$50

Memo Exhibit

	<u>Liability</u>	<u>Physical Damage</u>
1) Investment Income on Unearned Premium Reserves \$100 x (Exhibit B, Table 1, Item 12)	(\$0.11)	(\$0.11)
2) Investment Income on Loss Reserves \$100 x (Exhibit C, Table 1, Item 5)	\$1.97	\$0.05
3) Investment Income on Surplus \$50 x (Exhibit A, Table 1, Column 7)	\$1.35	\$1.35
4) Underwriting Income After Tax \$100 x (1-.35) x Profit Provision (Exhibit D, Item 4b)	\$6.24	\$8.16
5) Total Expected Return [1]+[2]+[3]+[4] Average Total Expected Return (Based on earned 59.7%/40.3% premium distribution)	\$9.45	\$9.45
6) Expected Return on Surplus ([5] x Premium:Surplus Ratio)/\$100		18.9%
7) GAAP Adjusted Return [6]/GAAP Adj. Factor (Exhibit F, Item 6)		15.0%

We have determined that, related to surplus, 15.0% is an appropriate and fair rate of return for property-casualty insurers in comparison with other industries, given the variability in the overall return. The pre-tax profit provisions of 9.6% for liability and 12.6% for physical damage are derived using an iterative method to yield an anticipated return of 9.45% on earned premium after tax, and a 15.0% GAAP adjusted return on surplus. However, we have selected lower target profit provisions of 8.0% for liability and 11.9% for physical damage as a percentage of premium.

Exhibit A: Effective Rate of Return on Investable Assets

Table 1: Historical Investments Returns 1986-2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Calendar Year	Mean Invested Assets (a)	Net Investment Income (b)	Net Inv. Inc. % of (2)	Net Realized Capital Gains (c)	Net Realized Cap. Gains % of (2)	Total Return
1986	8,118,335,491	638,231,286	7.9	306,142,812	3.8	
1987	9,808,729,009	733,126,525	7.5	117,222,704	1.2	
1988	11,272,895,755	868,278,838	7.7	34,851,447	0.3	
1989	12,415,308,080	965,013,926	7.8	45,991,686	0.4	
1990	13,727,246,565	1,040,182,466	7.6	43,141,539	0.3	
1991	14,085,608,244	1,084,863,706	7.7	16,195,685	0.1	
1992	14,872,603,927	1,078,372,300	7.3	356,556,819	2.4	
1993	15,380,644,905	1,019,000,685	6.6	192,575,284	1.3	
1994	15,728,080,374	1,000,703,107	6.4	42,091,361	0.3	
1995	16,644,320,729	1,004,243,423	6.4	58,061,803	0.3	
1996	17,754,458,149	1,024,976,627	5.8	80,172,253	0.5	
1997	19,051,878,513	1,049,458,975	5.5	112,763,515	0.6	
1998	20,008,196,638	1,114,613,916	5.6	199,016,656	1.0	
1999	21,692,869,206	1,259,013,722	5.8	559,579,315	2.6	
2000	23,097,086,037	1,249,282,280	5.4	336,548,991	1.5	
2001	22,316,155,306	1,180,115,309	5.3	295,996,921	1.3	
2002	22,117,700,188	1,149,160,133	5.2	236,186,278	1.1	
2003	24,593,328,553	1,213,180,583	4.9	186,183,583	0.8	
2004	28,362,100,873	1,278,067,945	4.5	411,926,118	1.5	
2005	31,616,013,191	1,277,698,305	4.0	273,728,472	0.9	
2006	35,560,878,142	1,370,600,938	3.9	106,166,957	0.3	
2007	40,342,136,927	1,668,935,624	4.1	189,655,540	0.5	
2008	44,670,013,186	2,071,514,943	4.6	(48,560,181)	-0.1	
2009	47,693,589,467	1,792,955,767	3.8	(28,910,232)	-0.1	
2010	49,579,139,343	1,721,410,847	3.5	202,759,385	0.4	
2011	50,838,643,778	1,760,105,473	3.5	163,773,970	0.3	
2012	52,513,908,048	1,648,452,923	3.1	236,234,647	0.4	
2013	54,881,045,930	1,499,741,700	2.7	206,470,410	0.4	
Latest 10 Years	436,057,468,885	16,089,484,465	3.8	1,713,245,086	0.5	
Latest 5 Years	255,506,326,566	8,422,666,710	3.3	780,328,180	0.3	
Anticipated Returns (Before Tax)			3.3		0.3	3.6
2013 Federal Tax Rate (Exhibit A, Table 2)			0.2584		0.3500	
Anticipated Returns (After Tax)			2.5		0.2	2.7

(a) Mean of current and prior year Annual Statements: Page 2, Line 12 Less Page SI04, Column (2), Lines 12, 18 and 24.

(b) 2013 Annual Statement: Page 4, Line 9 less Page 12, Part 1, Column (2), Lines 1.3, 2.11, 2.21, and 8.

(c) 2013 Annual Statement: Page 4, Line 10.

Exhibit A: Effective Rate of Return on Investable Assets

Table 2: Effective Federal Tax Rate

	<u>Earned</u>		<u>Distribution</u>	Federal Tax <u>Rate</u>	
BONDS (Ex Tax Exempt)	\$1,089,277,238.03	(a)	0.726	0.3500	
BONDS (Tax Exempt)					
Acquired Before 8/7/86	\$450,434		0.000	0.0000	
Acquired After 8/7/86	\$424,514,954		0.283	0.0525	
STOCKS					
Acquired Before 8/7/86					
Non-Affiliated	\$499,200		0.000	0.1050	
Foreign	\$0		0.000	0.3500	
Total	<u>\$499,200</u>				
Acquired After 8/7/86					
Non-Affiliated	\$51,807,999		0.035	0.1418	
Foreign	\$8,790,267		0.006	0.3500	
Total	<u>\$60,598,266</u>				
All Other Investment Income (b)	(\$75,598,392)	(c)	-0.050	0.3500	
Net Investment Income Gain/(Loss)	\$1,499,741,700	(d)	1.000	0.2584	(e)

(a) 2013 Annual Statement: Page 12, Part 1, Column (2), Lines 1 + 1.2
(Excludes bonds of affiliates)

(b) Reduced by investment expenses and depreciation on real estate

(c) 2013 Annual Statement: Page 12, Part 1, Column (2), lines 3, 4, 6, 7, and 9 less line 16

(d) Exhibit A, Table 1, Column 3

(e) Weighted average rate using "Distribution" column

Exhibit B: Investment Income from Unearned Premium Reserves

Table 1: Investment Income from Unearned Premium Reserves as Factor of Earned Premium

	Auto Liability	Auto Physical Damage
1) Earned Premium	\$100.00	\$100.00
2) Mean Unearned Premium Reserve Ratio of Mean Direct Unearned Premium Reserve to Direct Earned Premium x [1]	\$50.70	\$50.70
3) Mean Premium Subject to Installment Payment Finance Plan Ratio of Mean Premium Financed to Mean Direct Unearned Reserve x [2]	\$41.83	\$41.83
4) Funds Available for Prepaid Expense, Tax, and Investment [2] - [3]	\$8.87	\$8.87
5) Prepaid Expense Sum of Acquisition, Taxes, and One-Half General Expenses x (2)	\$13.54	\$13.64
6) Federal Tax - 1986 Reform Act Ratio of Tax Payable to Mean Net Unearned Premium Reserve x [2]	\$0.56	\$0.56
7) Funds Available for Investment Max([4] - [5] - [6], \$0)	\$0.00	\$0.00
8) Rate of Return, After Tax	2.7%	2.7%
9) Income on Invested Reserve [7] x [8]	\$0.00	\$0.00
10) Income from Installment Payment Premium Finance Plan Ratio of Investment Income to Mean Premium Financed x (3)	(\$0.11)	(\$0.11)
11) Total Investment Income [9] + [10]	(\$0.11)	(\$0.11)
12) Investment Income as a Factor of Earned Premium [11] / [1]	-0.0011	-0.0011

Notes

Lines [2], [3], and [10]: Exhibit B, Table 2, Columns [9], [10] and [6], 'Selected'

Line [5]: Exhibit D - Acquisition, 50% of General, and Taxes

Line [6]: Exhibit E, Section A, Line [5]

Line [8]: Exhibit A, Table 1

Exhibit B: Investment Income from Unearned Premium Reserves

Table 2: Investment Income from Installment Payment Premium Finance Plan (\$000)
(Private Passenger Automobile)

	[1] Premium Finance <u>Charges</u>	[2] Premium Charged-Off	[3]=[1]-[2] Net Investment <u>Income</u>	
Year				
2004	\$48,445	\$16,747	\$31,698	
2005	\$42,895	\$19,260	\$23,634	
2006	\$40,612	\$19,181	\$21,431	
2007	\$40,188	\$24,083	\$16,104	
2008	\$39,993	\$27,252	\$12,741	
2009	\$35,612	\$32,098	\$3,514	
2010	\$32,800	\$29,300	\$3,500	
2011	\$30,492	\$33,231	-\$2,739	
2012	\$28,101	\$35,013	-\$6,912	
2013	\$25,958	\$43,202	-\$17,243	
	[4]=[3]*0.65 After-Tax Investment <u>Income</u>	[5] Mean Premium <u>Financed</u>	[6]=[4]/[5] Ratio of Investment Income to Mean Premium Financed	
Year				
2004	\$20,604	\$1,248,165	0.017	
2005	\$15,362	\$1,375,868	0.011	
2006	\$13,930	\$1,410,003	0.010	
2007	\$10,468	\$1,483,302	0.007	
2008	\$8,282	\$1,558,991	0.005	
2009	\$2,284	\$1,625,851	0.001	
2010	\$2,275	\$1,725,184	0.001	
2011	(\$1,780)	\$1,860,539	-0.001	
2012	(\$4,493)	\$2,045,822	-0.002	
2013	(\$11,208)	\$2,251,839	-0.005	
Selected			-0.003	
	[7] Direct Earned <u>Premium</u>	[8] Mean Direct Unearned <u>Premium Reserve</u>	[9]=[8]/[7] Unearned Premium to Earned Premium <u>Ratio</u>	[10]=[5]/[8] Premium Financed to Unearned Premium <u>Reserve Ratio</u>
Year				
2004	\$3,831,290	\$1,735,572	0.453	0.719
2005	\$3,822,920	\$1,921,420	0.503	0.716
2006	\$3,794,629	\$1,912,456	0.504	0.737
2007	\$3,844,079	\$1,938,657	0.504	0.765
2008	\$3,926,622	\$1,984,942	0.506	0.785
2009	\$4,048,548	\$2,055,686	0.508	0.791
2010	\$4,279,658	\$2,156,978	0.504	0.800
2011	\$4,527,884	\$2,295,071	0.507	0.811
2012	\$4,897,160	\$2,480,741	0.507	0.825
2013	\$5,305,445	\$2,683,716	0.506	0.839
Selected			0.507	0.825

Exhibit C: Investment Income from Loss Reserves

Table 1: Investment Income from Loss Reserves as a Factor of Premium

	<u>Auto Liability</u>	<u>Auto Physical Damage</u>
1) Ratio of Loss & LAE Reserves to Incurred Loss & LAE	1.204	0.030
2) Ratio of Federal Tax Payable to Incurred Loss & LAE	-0.002	0.000
3) Permissible Loss & LAE Ratio	0.604	0.568
4) Net Effective Rate of Return After Tax	0.027	0.027
5) Investment Income as a Factor of Premium {[(1) - (2)] * (3) * (4)}	0.020	0.000

Notes

Line [1]: Exhibit C, Table 2, Column [9]

Line [2]: Exhibit E, Section B, Line [11]

Line [3]: Exhibit D

Line [4]: Exhibit A, Table 1

Exhibit C: Investment Income from Loss Reserves

Table 2: Ratio of Loss and LAE Reserves to Loss and LAE Incurred
Private Passenger Automobile - Liability
(\$000)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
<u>Year</u>	<u>Year-End Direct Loss Reserve</u>	<u>Prior Year Direct Loss Reserve</u>	<u>Mean Direct Loss Reserve</u>	<u>Year End Direct LAE Reserve</u>	<u>Prior Year Direct LAE Reserve</u>	<u>Mean Direct LAE Reserve</u>	<u>Direct Incurred Losses</u>	<u>Direct Incurred LAE</u>	<u>Ratio of Reserves to Incurred</u>
2004	2,387,188	1,691,914	2,039,551	472,213	356,159	414,186	1,485,014	400,136	1.302
2005	2,390,298	2,387,188	2,388,743	494,133	472,213	483,173	1,395,630	349,957	1.645
2006	2,198,306	2,390,298	2,294,302	529,549	494,133	511,841	1,221,529	343,654	1.793
2007	1,896,699	2,198,306	2,047,502	465,880	529,549	497,714	1,333,332	243,342	1.614
2008	2,135,874	1,896,699	2,016,286	406,493	465,880	436,186	1,678,525	264,866	1.262
2009	2,288,787	2,135,874	2,212,330	394,118	406,493	400,306	1,585,986	321,363	1.370
2010	2,410,821	2,288,787	2,349,804	411,820	394,118	402,969	1,647,348	388,187	1.352
2011	2,352,808	2,410,821	2,381,815	463,618	411,820	437,719	1,759,550	457,939	1.271
2012	2,398,879	2,352,808	2,375,844	473,156	463,618	468,387	1,841,116	446,004	1.244
2013	2,659,067	2,398,879	2,528,973	504,169	473,156	488,663	2,258,262	490,385	1.098

Selected

1.204

Table 2: Ratio of Loss and LAE Reserves to Loss and LAE Incurred
Private Passenger Automobile - Physical Damage
(\$000)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
<u>Year</u>	<u>Year-End Direct Loss Reserve</u>	<u>Prior Year Direct Loss Reserve</u>	<u>Mean Direct Loss Reserve</u>	<u>Year End Direct LAE Reserve</u>	<u>Prior Year Direct LAE Reserve</u>	<u>Mean Direct LAE Reserve</u>	<u>Direct Incurred Losses</u>	<u>Direct Incurred LAE</u>	<u>Ratio of Reserves to Incurred</u>
2004	(26,143)	(36,133)	(31,138)	48,220	27,711	37,966	781,166	181,498	0.007
2005	(30,501)	(26,143)	(28,322)	62,598	48,220	55,409	790,400	211,251	0.027
2006	(20,146)	(30,501)	(25,324)	42,365	62,598	52,481	800,009	186,124	0.028
2007	(2,397)	(20,146)	(11,272)	52,907	42,365	47,636	846,793	197,986	0.035
2008	3,492	(2,397)	548	42,248	52,907	47,578	868,521	170,361	0.046
2009	(6,350)	3,492	(1,429)	45,553	42,248	43,901	862,207	178,032	0.041
2010	(7,542)	(6,350)	(6,946)	52,544	45,553	49,048	895,533	198,548	0.038
2011	4,521	(7,542)	(1,510)	46,543	52,544	49,543	1,058,607	190,460	0.038
2012	(16,929)	4,521	(6,204)	36,119	46,543	41,331	1,214,352	199,916	0.025
2013	21,920	(16,929)	2,495	37,578	36,119	36,849	1,203,864	205,576	0.028

Selected

0.030

Note: Beginning in 2000, Liberty Mutual no longer holds Physical Damage Case Loss Reserves

Exhibit D: Expense Ratios

	<u>Auto Liability</u>	<u>Auto Physical Damage</u>
1) Acquisition	20.8%	21.1%
2) General	6.7%	7.3%
3) Taxes	2.5%	2.2%
4a) Indicated Profit	9.6%	12.6%
4b) Selected Profit	8.0%	11.9%
5) Indicated Total	39.6%	43.2%
6) Permissible Loss and LAE Ratio	60.4%	56.8%

Notes

Data from 2013 Insurance Expense Exhibit (Direct)

Exhibit E: Federal Income Tax Payable Due to Tax Reform Act of 1986

A. Tax on Unearned Premium Reserves (\$000,000)

	<u>Private Passenger Auto</u>	
1) Net Unearned Premium Reserve 12/31/12	\$2,488	(a)
2) Net Unearned Premium Reserve 12/31/13	\$2,929	(a)
3) Mean Net Unearned Premium Reserve {[1] + [2]} / 2	\$2,709	
4) Federal Tax Payable on Change in Net Unearned Premium Reserve {[2]-[1]} x 20% x 0.35	\$31	
5) Ratio of Tax Payable to Mean Net Unearned Premium Reserve [4] / [3]	0.011	
6) Selected	0.011	

(a) Insurance Expense Exhibit, Part II, Column 19

B. Loss & LAE Reserve Discounting (\$000,000)

	<u>Liability</u>	<u>Physical Damage</u>	
1) Net Reserve at 12/31/12	\$2,528.59	\$15.68	(a)
2) Net Reserve at 12/31/13	\$3,040.83	\$79.53	(a)
3) Discounted Net Reserve at 12/31/12	\$2,414.34	\$15.34	(b)
4) Discounted Net Reserve at 12/31/13	\$2,940.88	\$77.74	(b)
5) Change in Net Reserve [2]-[1]	\$512.24	\$63.85	
6) Change in Discounted Net Reserve [4]-[3]	\$526.53	\$62.40	
7) Additional Taxable Income [5]-[6]	(\$14.29)	\$1.44	
8) Federal Tax Payable [7] x 0.35	(\$5.00)	\$0.51	
9) 2013 Incurred Loss & LAE	\$2,901.02	\$1,176.93	(c)
10) Ratio of Federal Tax Payable to Incurred Loss & LAE [8] / [9]	-0.002	0.000	
11) Selected	-0.002	0.000	

(a) Insurance Expense Exhibit, Part II, Columns 13 + 15 + 17

(b) Discount ratios are provided internally by the Financial Department

(c) Insurance Expense Exhibit, Part II, Columns 7 + 9 + 11

Exhibit F: Expected Total Return - Adjustment to GAAP

Expected Total Return - Adjustment to GAAP

Amounts in Millions

Item	2011	2012	2013	Source
(1) Policyholders Surplus	15,701	16,521	17,508	Annual Statement: Page 3, Column (1), line 37
(2) Non-Admitted Assests	1,626	1,490	1,429	Annual Statement: Page 2, Column (2), line 26
(3) Equity in the UPR [= (h) calculated below]	2,574	2,888	3,017	calculated field
(4) Total Adjustments (2)+(3)	4,200	4,378	4,446	calculated field
(5) GAAP Surplus Adjustment Factor [(4)+(1)]/(1)	1.268	1.265	1.254	calculated field
(6) Selected GAAP Surplus Adjustment Factor		1.260		

Calculation of Equity in UPR

Item	2011	2012	2013	Source
(a) Commissions and Brokerage Expense Incd	2,452	2,624	2,795	IEE: Page 7, Part 3, Column (23), Totals
(b) Taxes, License & Fees	788	833	831	IEE: Page 7, Part 3, Column (25), Totals
(c) Other Acquisition Expenses Incd	2,178	2,495	2,496	IEE: Page 7, Part 3, Column (27), Totals
(d) General Expense Incd	2,101	2,531	2,809	IEE: Page 7, Part 3, Column (29), Totals
(e) Total of (a) + (b) + (c) + 0.5(d)	6,469	7,217	7,526	calculated field
(f) Written Premium	26,659	28,298	29,445	IEE: Page 6, Part 3, Column (1), Totals
(g) Ending UPR	10,609	11,323	11,802	IEE: Page 6, Part 3, Column (19), Totals
(h) Equity in UPR (g)*(e)/(f)	2,574	2,888	3,017	calculated field



AUTO | HOME | LIFE

Liberty Mutual Insurance

Personal Insurance Product Management
175 Berkeley Street
Boston, MA 02116
(617) 357-9500
(617) 654-3452 Fax

June 1, 2015

Theresa Miller, Acting Commissioner
Pennsylvania Insurance Department
Deputy Office of Rate and Policy Information
1311 Strawberry Square
Harrisburg, PA 17120

RE: Personal Auto Program Rate Filing
Liberty Insurance Corporation 0111-42404
Liberty Mutual Fire Insurance Company 0111-23035
The First Liberty Insurance Corporation 0111-33588

In accordance with the “prior approval” provision, Liberty Mutual Fire Insurance Company (LMFIC), The First Liberty Insurance Corporation (TFLIC) and Liberty Insurance Corporation (LIC) are submitting for approval a rate filing impacting renewal business effective September 5, 2015.

The changes summarized below are accompanied by the corresponding rate and rule manual changes.

Summary of Changes

1. Base Rate Changes
 - a. Liability; Medical; Comprehensive, Collision, Underinsured, and Uninsured
2. Revised Rental rate

Rate Impact

The overall rate effect of this filing is +1.5% for LMFIC, TFLIC and LIC.

Rating Manual Revisions

<u>Section</u>	<u>Page</u>	<u>Description of Change</u>
R	1, 4, and 5	Revised Base Rates
R	6	Revised Rental Rate

Should you need any further information regarding this filing please contact me using the information below.

Sincerely,

Melanie Bassler
Compliance Analyst II
Melanie.Bassler@LibertyMutual.com
(603)354-9641