

ARIZONA AUTO INSURANCE PROGRAM STATE FARM INSURANCE COMPANIES

Filing Memorandum

June 17, 2024 for New and Renewal Business

Our last general rate change in Arizona was effective November 15, 2023 for New and Renewal Business and produced a 5.9% all coverages change to State Farm Mutual and a 4.3% all coverages change to State Farm Fire and Casualty.

With this filing, for Personal Vehicles, we are including an overall increase of 4.7% to State Farm Mutual and an overall increase of 3.4% to State Farm Fire and Casualty. The changes by coverage for Private Passenger vehicle types are summarized in the tables below:

State Farm Mutual		
Coverage	Vehicle Type	Revised % Change
BIPD Liability	Private Passenger	5.0%
Uninsured Motorist	Private Passenger	25.0%
Underinsured Motorist	Private Passenger	24.9%
All Coverages	Private Passenger	4.9%

The automobile insurance program in State Farm Fire and Casualty was established a number of years ago to accommodate risks which are not eligible for insurance in the parent Mutual Company.

Due to the relatively small volume of auto business written in the Fire Company, the rates are established as a percentage of the corresponding Mutual Company base rates. The changes described in this filing result in the following income effects:

State Farm Fire and Casualty		
Coverage	Vehicle Type	Revised % Change
BIPD Liability	Private Passenger	5.0%
Uninsured Motorist	Private Passenger	15.0%
Underinsured Motorist	Private Passenger	15.0%
All Coverages	Private Passenger	3.5%

INDICATED RATE CHANGES

The enclosed Exhibits 1-10 set forth the actuarial calculation of the State Farm Mutual and State Farm Fire and Casualty indicated private passenger rate level changes by coverage, as well as for all coverages combined. As shown in Exhibits 1 and 10, the indicated rate level change for all coverages combined is 7.4% for State Farm Mutual and 12.4% for State Farm Fire and Casualty.

Exhibit 1 summarizes the indication and the information used to develop the indicated rate change. The data shown is developed in Exhibits 2-9. Historical losses, premium, and expenses in these exhibits were adjusted prior to trend and development selections.

Exhibit 2A develops a credibility-weighted loss ratio by coverage.

Exhibit 2B shows the development of the weighted loss ratios by coverage.

The loss ratios are based on trended ultimate losses and Loss Adjustment Expenses (LAE) divided by trended current-level earned premium for a selected number of fiscal accident years. The data is trended from the midpoint of each fiscal accident year to the midpoint of the time the revised premiums are expected to be earned using two-step trending as discussed below under Exhibit 4.

The number of fiscal accident years used to weight each loss ratio is selected so that the cumulative claim count of the experience period is equal to or greater than selected credibility standards, or judgmentally selected, subject to a minimum of 2 fiscal years. That minimum provides a level of stability. Equal weighting is applied to each available fiscal year if the credibility standard is not met.

Exhibit 2C develops a complement of credibility by coverage by adjusting the permissible loss ratio for premium and loss trends during the prospective projection period.

Exhibit 3 shows the rate history.

Exhibit 4 details the selection of historical and prospective premium trends. The yearly trend percentages shown are determined by applying a regression to historical data.

Data is trended from the midpoint of each fiscal accident year to the midpoint of the latest fiscal accident year using the selected historical trend percentage. The historically-trended data is then trended from the midpoint of the latest fiscal accident year to the midpoint of the time the revised premiums are expected to be earned using the selected prospective trend percentage.

Exhibit 5 details the selection of historical and prospective loss trends. The selected trends are then applied using the same procedures detailed under Exhibit 4. Additionally, fiscal accident year losses have been matched with the fiscal calendar year exposures that produced them. This adds stability to the calculated loss trends when exposures change over time.

Exhibit 6 shows the selection for Adjusting and Other (A&O) Expenses as a percentage of loss and DCC.

Exhibit 7 shows the selected provision used to adjust the comprehensive coverage losses to reflect an expected provision for catastrophic loss.

Exhibits 8A and 8B detail the fixed and variable expense selections, respectively. Selected fixed expenses are shown based on cost per policy and converted to a ratio to projected earned premium. Variable expenses are shown as a ratio to written premium.

Exhibit 9 details the selected provision for underwriting profit and contingencies.

Exhibit 10 summarizes the indication and the information used to develop the indicated rate change for State Farm Fire and Casualty. It corresponds to Exhibit 1, but reflects information for State Farm Fire and Casualty.

PRIVATE PASSENGER RATES AND RATING RELATIVITIES

Base Rates – We are revising our base rates to achieve the overall changes by coverage shown at the beginning of this memo. The income effects of all the rating factor changes described in this filing as of the effective date were taken into consideration when developing our revised base rates.

STAR Level Factors – The rates in State Farm Fire and Casualty are based on particular relationships to the Mutual base rates. We are revising the STAR rate relationships to Mutual as shown in the revised rate manual. All other coverages will maintain their current relationship to Mutual.

Private Passenger Business Use Factors – We are revising private passenger business use factors for BIPD coverage based on a review of companywide loss experience. Please see Exhibit 11 for additional details.

MISCELLANEOUS VEHICLES

We are revising the factors and rates by coverage for miscellaneous vehicles, resulting in the following combined companies overall rate changes:

Type of Vehicle	Coverage	Average % Change
Antiques	All Coverages	0.8%
Classics	All Coverages	-0.4%
Motorcycles	All Coverages	0.1%

Exhibit 1
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Indicated Rate Change
Policies Effective: 6/17/2024 New 6/17/2024 Renewal

- (1) Projected Non-Provisional Credibility Weighted Loss & LAE (L)
- (2) Catastrophe Provision (C)
- (3) Fixed Expenses (F)
- (4) Variable Expenses (V)
- (5) Profit & Contingencies (Q)

Coverage (% of Projected Premium)

Bodily Injury & Property Damage Liability	Uninsured Bodily Injury	Underinsured Bodily Injury
88.0%	110.0%	107.7%
0.0%	0.0%	0.0%
5.6%	5.6%	5.6%
15.2%	15.2%	15.2%
0.0%	0.0%	0.0%
10.4%	36.3%	33.6%

$$\text{Indicated Change} = \frac{L * (1 + C) + F}{1 - V - Q} - 1$$

All Coverages* **7.4%**

Row (1) = See Exhibit 2A
 Row (2) = See Exhibit 7, applies to Comprehensive coverage only.
 Row (3) = See Exhibit 8A
 Row (4) = See Exhibit 8B
 Row (5) = See Exhibit 9
 All data is aggregated through 10/31/2023.
 Premiums, Losses, and Expenses are projected to 3/18/2025.

* Weighted average of all coverages including additional miscellaneous coverages not shown, using the latest fiscal accident year current level earned premium.

Exhibit 2A
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Credibility-Weighted Non-Provisional Loss & LAE Ratio

	(1)	(2)	(3)	(4)
	Projected Loss & LAE Ratio	Credibility	Complement of Credibility	Credibility Weighted Loss & LAE Ratio
Bodily Injury & Property Damage Liability	88.0%	100.0%	92.4%	88.0%
Uninsured Bodily Injury	110.0%	100.0%	97.8%	110.0%
Underinsured Bodily Injury	107.7%	100.0%	94.9%	107.7%

Col (1) = See Exhibit 2B

Col (2) is derived by comparing incurred claim counts to a credibility standard using classical credibility.

Col (3) = See Exhibit 2C

Col (4) = Col (1) * Col (2) + Col (3) * (1 - Col (2))

Exhibit 2B
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Projected Non-Provisional Loss & LAE Ratio

Coverage: Bodily Injury Liability

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fiscal Accident Year End	Current Level Earned Premium	Trended Current Level Earned Premium	Loss and DCC	Cumulative Loss Development Factor	Ultimate Loss & DCC	A&O Expense Factor	Trended Ultimate Loss & LAE	Loss & LAE Ratio	Accident Year Weight
7/31/2022	462,173,628	463,854,554	138,874,364	1.1724	162,816,880	1.100	229,039,998	49.4%	50.0%
7/31/2023	497,941,620	500,758,476	126,280,028	1.5378	194,198,797	1.100	249,712,080	49.9%	50.0%
(10) Incremental Projected Loss & LAE Ratio:								49.7%	

Coverage: Property Damage Liability

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fiscal Accident Year End	Current Level Earned Premium	Trended Current Level Earned Premium	Loss and DCC	Cumulative Loss Development Factor	Ultimate Loss & DCC	A&O Expense Factor	Trended Ultimate Loss & LAE	Loss & LAE Ratio	Accident Year Weight
7/31/2022	462,173,628	463,854,554	125,630,685	1.0084	126,686,848	1.083	187,414,872	40.4%	50.0%
7/31/2023	497,941,620	500,758,476	133,711,928	1.0789	144,261,069	1.083	180,545,696	36.1%	50.0%
(10) Incremental Projected Loss & LAE Ratio:								38.3%	

Bodily Injury & Property Damage Liability Projected Loss & LAE Ratio **88.0%**

Coverage: Uninsured Bodily Injury

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fiscal Accident Year End	Current Level Earned Premium	Trended Current Level Earned Premium	Loss and DCC	Cumulative Loss Development Factor	Ultimate Loss & DCC	A&O Expense Factor	Trended Ultimate Loss & LAE	Loss & LAE Ratio	Accident Year Weight
7/31/2015	25,879,183	26,987,459	8,490,189	1.0000	8,490,189	1.079	30,944,961	114.7%	11.1%
7/31/2016	26,670,278	27,699,298	12,072,552	1.0000	12,072,552	1.079	38,788,619	140.0%	11.1%
7/31/2017	27,228,467	28,169,020	12,072,715	1.0000	12,072,715	1.079	34,205,953	121.4%	11.1%
7/31/2018	27,154,101	27,979,640	13,648,994	1.0014	13,668,103	1.079	34,150,588	122.1%	11.1%
7/31/2019	28,061,475	28,798,397	12,479,795	1.0048	12,539,758	1.079	27,628,442	95.9%	11.1%
7/31/2020	29,361,138	30,010,606	12,889,392	1.0084	12,997,947	1.079	25,245,532	84.1%	11.1%
7/31/2021	31,624,375	32,196,144	17,510,782	1.0539	18,454,646	1.079	31,608,488	98.2%	11.1%
7/31/2022	33,741,866	34,215,602	22,301,147	1.1417	25,461,040	1.079	38,454,608	112.4%	11.1%
7/31/2023	36,191,086	36,552,997	18,825,727	1.4808	27,876,655	1.079	37,127,235	101.6%	11.2%
(10) Incremental Projected Loss & LAE Ratio:								110.0%	

Coverage: Underinsured Bodily Injury

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Fiscal Accident Year End	Current Level Earned Premium	Trended Current Level Earned Premium	Loss and DCC	Cumulative Loss Development Factor	Ultimate Loss & DCC	A&O Expense Factor	Trended Ultimate Loss & LAE	Loss & LAE Ratio	Accident Year Weight
7/31/2018	70,289,848	76,911,152	45,135,374	1.0028	45,261,753	1.070	103,887,388	135.1%	16.6%
7/31/2019	73,604,437	79,271,979	44,864,949	1.0230	45,894,881	1.070	93,970,595	118.5%	16.6%
7/31/2020	78,149,019	82,837,960	41,143,845	1.0460	43,035,343	1.070	78,577,799	94.9%	16.7%
7/31/2021	85,453,207	89,153,331	42,583,853	1.1239	47,859,897	1.070	77,957,805	87.4%	16.7%
7/31/2022	92,510,488	94,999,020	50,298,054	1.3903	69,927,450	1.070	101,608,058	107.0%	16.7%
7/31/2023	99,688,528	100,755,195	35,061,808	2.2939	80,429,387	1.070	104,249,812	103.5%	16.7%
(10) Incremental Projected Loss & LAE Ratio:								107.7%	

Col (1) is derived using the parallelogram current level process.

Col (2) is derived by applying premium trends listed in Exhibit 4 to the values in Col (1). An adjustment is included to reflect the future expected premium due to the Auto Trend Factor.

Col (5) = Col (3) * Col (4)

Col (6) = See Exhibit 6

Col (7) is derived by applying loss trends listed in Exhibit 5 to the values in Col (5) and multiplying by the factor in Col (6). An adjustment is included to reflect the impacts of COVID-19 on future expected claim activity.

Col (8) = Col (7) / Col (2)

Col (9) shows assigned weighting based on selected credibility standards for cumulative incurred claim counts and actuarial judgment, subject to a minimum of 2 fiscal accident years.

Row (10) = Weighted average of Col (8) using the weights in Col (9)

Premiums, Losses, and Expenses are projected to 3/18/2025.

Exhibit 2C
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Complement of Credibility

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Expense Ratio	Variable Expense Ratio	Last Implemented Profit and Contingencies	Total Permissible Loss Ratio	Prospective Premium Trend	Prospective Loss Trend	Catastrophe Provision	Complement Of Credibility
Bodily Injury & Property Damage Liability	5.6%	15.2%	0.0%	79.2%	-0.2%	7.3%	0.0%	92.4%
Uninsured Bodily Injury	5.6%	15.2%	0.0%	79.2%	0.0%	10.4%	0.0%	97.8%
Underinsured Bodily Injury	5.6%	15.2%	0.0%	79.2%	0.5%	9.4%	0.0%	94.9%

Col (1) = See Exhibit 8A

Col (2) = See Exhibit 8B

Col (3) = See Total Financial Needs exhibit of the latest previously approved filing

Col (4) = 1 - Col (1) - Col (2) - Col (3)

Col (5) = See Exhibit 4

Col (6) = See Exhibit 5

Col (7) = See Exhibit 7, applies to Comprehensive coverage only.

Col (8) = $[\text{Col (4)} * [(1 + \text{Col (6)}) / (1 + \text{Col (5)})]^{(\text{Prospective Trend Period})} / [1 + \text{Col (7)}]$

Premiums, Losses, and Expenses are projected to 3/18/2025.

Exhibit 3
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Rate Change History

New Business Effective Date	Renewal Business Effective Date	Advance Billing Renewal Effective Date	All Coverages*	Bodily Injury & Property Damage Liability	Uninsured Bodily Injury	Underinsured Bodily Injury
11/15/2023	11/15/2023	11/15/2023	5.9%	2.3%	2.3%	14.6%
5/15/2023	5/15/2023	5/15/2023	4.1%	5.4%	0.0%	0.0%
1/9/2023	1/9/2023	1/9/2023	9.1%	16.0%	36.1%	0.0%
8/8/2022	8/8/2022	8/8/2022	9.1%	3.3%	6.7%	-0.1%
3/1/2022	3/1/2022	3/1/2022	0.1%	-0.5%	2.0%	5.0%
1/1/2022	1/1/2022	1/1/2022	0.0%	-4.5%	16.1%	15.9%
2/22/2021	2/22/2021	2/22/2021	3.1%	3.2%	3.3%	3.2%
11/16/2020	11/16/2020	11/16/2020	0.0%	0.0%	-0.1%	-0.1%
8/17/2020	8/17/2020	8/17/2020	-7.8%	-8.0%	-7.9%	-8.0%
3/30/2020	3/30/2020	3/30/2020	-0.1%	-0.1%	0.0%	0.0%
12/30/2019	12/30/2019	12/30/2019	-2.8%	-5.5%	8.7%	15.1%
2/11/2019	2/11/2019	2/11/2019	-3.1%	0.0%	0.0%	0.0%
4/23/2018	4/23/2018	4/23/2018	-3.4%	-3.0%	0.9%	-3.0%
10/30/2017	10/30/2017	10/30/2017	-1.8%	-1.9%	0.0%	0.0%
3/27/2017	3/27/2017	3/27/2017	7.3%	10.3%	0.0%	9.7%
6/27/2016	6/27/2016	6/27/2016	7.2%	11.0%	0.0%	0.0%
8/10/2015	8/10/2015	8/10/2015	1.3%	1.7%	-4.5%	8.3%

* Includes additional miscellaneous coverages

Rate changes displayed are premium effects only. Coverage changes are not included.

Exhibit 4
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Premium Trends and Selections

	Arizona Trends			Credibility Weighted Trends			Selected Historical Trend	Selected Prospective Trend
	1 Year	3 Year	5 Year	1 Year	3 Year	5 Year		
Bodily Injury & Property Damage Liability	-0.2%	-0.3%	0.3%	0.0%	0.0%	0.2%	-0.2%	-0.2%
Uninsured Bodily Injury	-0.1%	0.4%	0.8%	-0.1%	0.7%	0.8%	0.4%	0.0%
Underinsured Bodily Injury	0.0%	1.3%	1.8%	1.2%	1.4%	1.3%	1.6%	0.5%

Trend percentages shown are calculated by applying an exponential regression to 12 month calendar year rolling current level earned premium per policy for the time periods displayed.

Exhibit 5
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Loss Trends and Selections

		Arizona Trends			Credibility Weighted Trends			Selected Historical Trend	Selected Prospective Trend
		1 Year	3 Year	5 Year	1 Year	3 Year	5 Year		
Bodily Injury Liability	Frequency per 100	0.8%	8.0%	-1.0%	2.9%	8.2%	-1.0%	1.8%	1.8%
	Severity	-10.1%	12.1%	5.3%	-10.1%	14.4%	5.7%	7.5%	5.7%
	Pure Premium	-9.4%	21.1%	4.3%	-9.4%	24.3%	4.3%	9.4%	7.6%
Property Damage Liability	Frequency per 100	2.0%	5.3%	-6.3%	2.0%	5.6%	-6.3%	4.0%	0.0%
	Severity	18.9%	19.1%	12.3%	18.7%	18.9%	12.3%	13.7%	7.0%
	Pure Premium	21.2%	25.4%	5.3%	21.3%	25.4%	5.3%	18.2%	7.0%
Bodily Injury & Property Damage Liability Pure Premium								13.7%	7.3%
Uninsured Bodily Injury	Frequency per 100	-6.4%	14.6%	6.7%	1.1%	13.8%	6.2%	2.6%	2.6%
	Severity	30.1%	10.5%	8.8%	9.3%	10.9%	8.8%	10.5%	7.6%
	Pure Premium	21.7%	26.6%	16.0%	12.8%	26.6%	15.7%	13.4%	10.4%
Underinsured Bodily Injury	Frequency per 100	21.6%	10.2%	-0.2%	21.6%	16.0%	0.4%	7.2%	4.6%
	Severity	2.8%	10.6%	5.1%	3.3%	5.6%	4.2%	4.6%	4.6%
	Pure Premium	24.9%	21.9%	4.9%	25.0%	22.9%	6.9%	12.1%	9.4%

Trend percentages shown are calculated by applying an exponential regression to 12 month calendar year rolling case incurred loss for the time periods displayed. Underlying trend data was adjusted to align accident year losses with calendar year exposures.

Exhibit 6
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Non-Catastrophe A&O Expense per Loss & DCC Selections

		Projected A&O Expense per Case Incurred Loss & DCC					Selected Projection
		Historical Data Period					
		Latest Pt	1 Year	3 Year	5 Year		
Bodily Injury Liability	Arizona Average	13.2%	11.8%	14.6%	16.1%	10.0%	
	Arizona Trended Values	N/A	17.3%	7.4%	10.0%		
	Credibility Weighted Trended Values	N/A	17.3%	8.2%	10.3%		
Property Damage Liability	Arizona Average	9.8%	9.6%	13.3%	14.6%	8.3%	
	Arizona Trended Values	N/A	9.0%	5.3%	8.4%		
	Credibility Weighted Trended Values	N/A	8.5%	5.8%	8.8%		
Uninsured Bodily Injury	Arizona Average	11.0%	10.5%	11.2%	11.9%	7.9%	
	Arizona Trended Values	N/A	11.3%	7.9%	8.9%		
	Credibility Weighted Trended Values	N/A	12.8%	7.9%	8.9%		
Underinsured Bodily Injury	Arizona Average	10.2%	12.0%	14.1%	13.3%	7.0%	
	Arizona Trended Values	N/A	5.6%	8.5%	13.9%		
	Credibility Weighted Trended Values	N/A	5.6%	8.5%	11.3%		

Trended values displayed above are the projected expense ratios resulting from exponential regressions applied to 12 month calendar year rolling case incurred expenses per loss & DCC for the time periods displayed. The trends for comprehensive coverage reflect only non-catastrophe expenses and losses.

Exhibit 7
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Catastrophe Provision

	Catastrophe Loss & LAE Per Non-Catastrophe Incurred Loss & LAE
Comprehensive Catastrophe Provision	2.4%

Exhibit 8A
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Fixed Expense Ratio Selection

	Projected Fixed Expense per Policy					Selected Projection
	Historical Data Period					
	Latest Pt	1 Year	3 Year	5 Year		
Arizona Average	68.44	68.80	74.73	73.53	70.41	
Arizona Trended Values	N/A	71.53	61.64	72.96		
Countrywide Trended Values	N/A	70.33	60.65	65.21		

Selected Fixed Expense per Policy	70.41
Projected Earned Premium per Policy	1257.32
Selected Fixed Expense per Earned Premium	5.6%

Trended values displayed above are the projected expenses per policy resulting from exponential regressions applied to 12 month calendar year rolling data for the time periods displayed.

Premiums, Losses, and Expenses are projected to 3/18/2025.

Exhibit 8B
State Farm Mutual Automobile Insurance Company
Arizona Private Passenger
Variable Expense Ratio Selection

	Projected Commissions per Written Premium					Selected Projection
	Historical Data Period					
	Latest Pt	1 Year	3 Year	5 Year		
Arizona Average	12.6%	13.0%	13.3%	13.3%	13.0%	
Arizona Trended Values	N/A	11.4%	12.8%	13.3%		
Countrywide Trended Values	N/A	12.6%	13.8%	14.3%		

	Projected Taxes per Written Premium					Selected Projection
	Historical Data Period					
	Latest Pt	1 Year	3 Year	5 Year		
Arizona Average	2.2%	2.3%	2.2%	2.1%	2.2%	
Arizona Trended Values	N/A	2.0%	2.5%	2.4%		
Countrywide Trended Values	N/A	2.5%	2.0%	1.9%		

Selected Commissions per Written Premium	13.0%
Selected Taxes per Written Premium	2.2%
Selected Variable Expense per Written Premium	15.2%

Trended values displayed above are the projected expense ratios resulting from exponential regressions applied to 12 month calendar year rolling data for the time periods displayed.

Premiums, Losses, and Expenses are projected to 3/18/2025.

EXHIBIT 9
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
PROVISION FOR UNDERWRITING PROFIT AND CONTINGENCIES
AUTOMOBILE INSURANCE OPERATIONS

The following analysis demonstrates that the use of a 0.0% combined provision for underwriting profit and contingencies, together with expected investment income, will produce an expected total return after tax for State Farm which is reasonable compared to that earned by companies in other industries of similar risk and will enable the company to serve the insurance needs of its policyholders. These earnings provide the only source of funds for its Policyholder Protection Fund (Surplus), which is essential to State Farm's continued growth and financial strength.

Total Financial Needs Analysis

- A. Auto insurance premiums traditionally include provisions for expected losses and expenses (including an estimate of expected catastrophe losses) and a combined provision for underwriting profit and contingencies. The contingency provision reflects an allowance in the rates for losses and expenses arising from events which cannot be reasonably foreseen or predicted. It thus represents an allowance for adverse fluctuations from the otherwise expected results. The underwriting profit provision reflects the expected difference between earned premiums, incurred losses, and expenses. The need for a contingency element in the rates is generally accepted actuarially and recognized in nearly all rating laws. Over the long-term, the contingency element will not be realized as an underwriting profit, but will be offset by unanticipated losses and expenses.

State Farm Mutual Automobile Insurance Company's underwriting profit from automobile operations, before federal taxes, has averaged -8.2% (see Exhibit 9A, Column 2) during the last twelve years (approximately two underwriting cycles). These results were generated during a period when filed rates generally included a combined provision for underwriting profit and contingencies averaging 1.0%. Based on the difference between our filed profit and contingencies provisions and our actual results, the contingency element has recently been averaging in excess of 2.0% of earned premium.

It is thus reasonable to expect that a 0.0% combined provision for **underwriting profit and contingencies** will produce an actual underwriting result of no more than -2.0% on average.

- B. **Net Investment Income** (interest, dividends, and real estate income) has declined as a percent of mean invested assets from 3.6% in 2011 to 2.3% in 2022 (see Exhibit 9B). Based on an analysis of these results, it is reasonable to expect a return of 2.3% on invested assets during the time the rates will be in effect.

Capital Gains have fluctuated between -5.6% and 11.0% of mean invested assets over the past 12 years (Exhibit 9B), with a 12-year average of 3.2% and a 24-year average of 1.8%. The expected contribution of capital gains during the period rates will be in effect is 3.0% of invested assets.

EXHIBIT 9
(Continued)
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY

As a result, the **Net Investment Yield** as a percent of mean invested assets is expected to be 5.3% during the time the rates will be in effect.

- C. **Other Income** has averaged 0.4% of earned premium during the past 12 years (see Exhibit 9A, column 3) and 0.0% for the last 3 years. The expected income during the time the rates will be in effect is 0.0%.
- D. All of these income sources combine to yield a total expected insurance operating profit of approximately 1.64%, on earned premium, before tax, as summarized in the table on the following page. This includes the expected investment income attributable to unearned and advance premium reserves and that portion of loss and loss adjustment expense reserves resulting from policyholder supplied funds, as well as the expected underwriting profit.
- E. In order to demonstrate that this profit provision is reasonable in comparison to the total after-tax return for other industries, a 2:1 premium-to-surplus ratio is used for this ratemaking analysis. A 2:1 ratio is a general measure of minimum necessary surplus that is often used for automobile insurers, without taking into account the specific risks and needs of a particular insurer. It is also generally recognized that it is prudent to maintain a larger level of surplus and that surplus needs vary from insurer to insurer. The 2:1 ratio is used in this ratemaking analysis to illustrate that even at this low level of capitalization, the rate of return is reasonable in comparison to other industries. Although a 2:1 ratio is used in this ratemaking analysis, considering the multiplicity, nature and magnitude of risks and needs to which State Farm is exposed, State Farm's surplus is and should be significantly larger to provide the financial strength that is adequate and appropriate for its policyholders today and in the future.

Allowing for the expected investment income attributable to the capital of \$50 per \$100 of premium, the expected total return, after tax, is 7.2% as demonstrated on Exhibit 9.

Taking into account the equity in the unearned and advance premium reserve, the expected total return is approximately 6.2% on a GAAP adjusted basis. An expected total return up to 28% is reasonable in comparison to the current returns of other industries. Recent median returns reported in Fortune magazine average around 11.7% on a GAAP adjusted basis.

- F. Based on the foregoing, we conclude that a 0.0% combined provision for underwriting profit and contingencies can be expected to produce a reasonable total return during the time the projected rates are to be in effect. If the contingency provision is actually realized as a profit in any year, the expected total GAAP adjusted return increases to 8.9%. Such a result would still be reasonable and not excessive. If the actual premium-to-surplus ratio were used in this calculation, a lower total rate of return would result.

EXHIBIT 9
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
AUTOMOBILE INSURANCE OPERATIONS

EXPECTED TOTAL RETURN

Item	Expected Contribution to Income
Premium = \$100	
Assumed Capital for Policyholder Protection Fund = \$50	
1) Expected Contribution from a 2.0% Provision for Contingencies \$100 x 0.0% (Paragraph A of the narrative)	\$ 0.00
2) Underwriting Profit Provision (Paragraph A of the narrative)	\$ (2.00)
3) Investment Income on Unearned Premium and Advance Premium Reserves \$100 x (Exhibit 9C, Line 6)	\$ 0.17
4) Investment Income on Loss and Loss Adjustment Expense Reserves \$100 x (Exhibit 9D, Line 5)	\$ 3.47
5) Other Income; \$100 x 0.0% (Paragraph C of the narrative)	\$ 0.00
6) Expected Insurance Operating Profit, Before Tax Sum of 1-5	\$ 1.64
7) Investment Income on Policyholder Protection Fund \$50 x (Exhibit 9B, Selected Investment Yield)	\$ 2.65
8) Federal Income Tax equals: (Lines 1+2+5) x 21.0% + (Lines 3+4+7) x (17.8%, Exhibit 9E, Tax Rate)	\$ (0.70)
9) Expected Total Return Sum 6-8	\$ 3.59
10) Expected Total Return as a Percent of Policyholder Protection Fund Line 9 / \$50	7.2%
11) GAAP Adjusted Return Line 10/ (Exhibit 9F, Line 6)	6.2%

Based on the foregoing, a 0% combined provision for underwriting profit and contingencies can be expected to produce a reasonable total return during the time the projected rates will be in effect.

**EXHIBIT 9A
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY**

COMPANYWIDE AUTOMOBILE INSURANCE OPERATIONS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Underwriting Gain or Loss	Other Income*	Net Investment Income	Net Realized Capital Gains or Losses	Net Income Before Tax	Net Income After Tax	Net Unrealized Capital Gains or Losses After Tax	Net Income plus Unrealized Gains or Losses After Tax
2011	-5.9%	0.1%	8.3%	-0.1%	2.4%	3.0%	-2.3%	0.7%
2012	-3.8%	0.8%	8.5%	-0.1%	5.4%	5.4%	-0.1%	5.3%
2013	-8.0%	0.7%	8.0%	2.0%	2.7%	3.8%	24.8%	28.6%
2014	-9.3%	0.6%	8.4%	0.7%	0.4%	1.6%	7.4%	9.0%
2015	-13.6%	0.6%	7.3%	8.0%	2.3%	4.9%	-17.9%	-13.0%
2016	-18.0%	0.5%	7.1%	1.2%	-9.2%	-6.2%	13.4%	7.2%
2017	-6.6%	0.6%	7.4%	1.5%	2.9%	7.4%	15.7%	23.1%
2018	2.5%	0.5%	7.0%	5.8%	15.8%	14.2%	-16.5%	-2.3%
2019	-1.8%	0.5%	7.5%	0.1%	6.3%	5.4%	26.5%	31.9%
2020	3.5%	0.0%	7.3%	-1.0%	9.8%	7.7%	17.0%	24.7%
2021	-8.9%	0.0%	7.7%	0.3%	-0.9%	0.0%	37.7%	37.7%
2022	-28.8%	0.0%	7.3%	0.2%	-21.3%	-19.0%	-17.7%	-36.7%
Mean	-8.2%	0.4%	7.7%	1.6%	1.4%	2.4%	7.3%	9.7%
Std. Dev.	8.9%	0.3%	0.5%	2.7%	9.3%	8.3%	18.5%	21.2%

Notes: Columns (2) & (3) are percentages of auto only earned premiums. Columns (4) , (5) , (8) and the Federal Tax calculation shown in Column (7) are percentages of all lines earned premiums.

All columns are before federal taxes, except columns 7-9.

(2) Net all auto underwriting gain or loss from the IEE part II, less dividends to policyholders, and adjusted for prepaid expenses.

(3) Miscellaneous all auto income related to insurance operations from the IEE part II, excluding insurance department fines and penalties and aggregate write-ins for underwriting deductions.

*Note that the Other Income for 2015 excludes losses due to the sale of our Canadian business. This transaction was removed from our data as it will not apply in the future. Other Income was -0.8% with these losses included.

(4) AS Page 12, Line 17 less AS Page 12, Line 2.21 divided by AS Page 4, Column 1

(5) AS Page 4, Line 10 divided by AS Page 4, Column 1

(6) (2) + (3) + (4) + (5)

(7) (6) less the sum of federal income taxes incurred, including the estimated tax on prepaid expenses

(8) AS Page 4 Line 24 less AS Page 3 change in surplus for affiliates

(9) (7) + (8)

EXHIBIT 9B
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
INVESTMENT RATE OF RETURN AS A PERCENT
OF MEAN INVESTED ASSETS

<u>Year</u>	<u>Net Investment Income</u>	<u>Capital Gain/Loss</u>
2011	3.6%	-1.0%
2012	3.6%	-0.1%
2013	3.2%	10.9%
2014	3.2%	3.1%
2015	2.9%	-3.9%
2016	3.0%	6.2%
2017	3.1%	7.2%
2018	2.8%	-4.4%
2019	2.8%	9.8%
2020	2.4%	5.2%
2021	2.2%	11.0%
2022	2.3%	-5.6%
Latest 12-Year Average	2.9%	Latest 12-Year Average 3.2%
Latest 6-Year Average	2.6%	Prior 12-Year Average 0.4%
Latest 3-Year Average	2.3%	Latest 24-Year Average 1.8%
Selected Yield	2.3%	3.0%

Data Source: Annual Statement, Pages 2, 3, 4, and 12

EXHIBIT 9C
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
AUTOMOBILE INSURANCE OPERATIONS

**ESTIMATED INVESTMENT INCOME FROM RESERVE FOR
UNEARNEED PREMIUM AND ADVANCE PREMIUMS**

	<u>All Auto</u>
(1) Mean Reserve for Unearned Premium and Advance Premiums, as a ratio to Earned Premium	
(a) 2020	0.2570
(b) 2021	0.2630
(c) 2022	<u>0.2724</u>
(d) 3-Year Average	<u>0.2641</u>
 (2) Delayed Remission of Premiums	
Ratio of Agents' Balances or Uncollected Premiums to Unearned Premium & Advance Premiums	65.1%
 (3) Expenses Incurred at the Beginning of the Policy Term (as a % of Written Premium)	
(a) Commissions & Other Acquisition	18.9%
(b) 50% of General Expenses	1.5%
(c) Taxes	<u>2.0%</u>
(d) Total	<u>22.4%</u>
 (4) Mean Unearned Premium & Advance Premium Reserve Adjusted for Agents' Balances, Uncollected Premiums, and Prepaid Expenses	
= (1d) × [1.00 – (2) – (3d)]	0.0330
 (5) Investment Yield, Before Tax	5.3%
 (6) Investment Income from Unearned Premium Reserves and Advance Premium (as a % of Earned Premium)	
= (4) × (5)	0.17%

DATA SOURCES:

Note: Advance Premiums from Page 3, line 10 of the AS have been allocated by ASLN and included with the unearned premium reserve.

Item 1- Insurance Expense Exhibit, Part II, Columns 2 and 19, Lines 19 thru 21 plus Annual Statement, Page 3, Line 10

Item 2- Insurance Expense Exhibit, Part II, Columns 19 and 21, Lines 19 thru 21 plus Annual Statement, Page 3, Line 10

Item 3- Insurance Expense Exhibits, Part II, (three year average of the mean ratios)

Item 5- From Exhibit 9B

EXHIBIT 9D
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
AUTOMOBILE INSURANCE OPERATIONS

ESTIMATED INVESTMENT INCOME FROM RESERVE
FOR LOSSES AND LOSS ADJUSTMENT EXPENSES

(1) Mean Reserve for Losses and Loss Adjustment Expenses, as a Ratio to Incurred Losses and Loss Adjustment Expenses	All Auto
(a) 2020	1.0088
(b) 2021	0.8249
(c) 2022	0.6792
(d) 3-Year Average	0.8376
(2) Permissible Loss and Loss Adjustment Expense (% Earned Premium) = (1.000 – Expense Ratio – Underwriting Profit Provision)	78.1%
(3) Mean Reserves for Losses and Loss Adjustment Expenses as a Ratio to Earned Premium = (1d) × (2)	0.6542
(4) Investment Yield, Before Tax	5.3%
(5) Estimated Investment Income from Losses and Loss Adjustment Expense Reserves (as a % of Earned Premiums) = (3) × (4)	3.47%

DATA SOURCES:

Item 1 - Insurance Expense Exhibit, Part II, Columns 7, 9, 11, 13, 15, 17, Lines 19 thru 21

Item 2 - 1.0 minus the provision for expenses and underwriting profit. Expense provision is the latest three year average of commissions, other acquisition, general expenses, and taxes, licenses, and fees from the Insurance Expense Exhibit, Part II.

Item 4 - From Exhibit 9B

EXHIBIT 9E
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY

AVERAGE FEDERAL TAX RATE ON INVESTMENT INCOME

Investment Type	Investment (1) Income 2020-2022	Distribution	Current Tax Rates (2)
Bonds (Taxable)	\$2,545,274,313	24.4%	21.0%
Bonds (Tax Exempt)	\$2,507,784,721	24.1%	5.3%
Stocks (Unaffiliated)	\$4,598,349,337	44.1%	13.1%
Other (Net of Depreciation)	\$771,086,484	7.4%	21.0%
Total	\$10,422,494,854		13.7%

Yield Type	Selected Yield	Distribution	Current Tax Rate (2)
Inv. Income Earned	2.3%	43.4%	13.7%
Capital Gains	3.0%	56.6%	21.0%
Total	5.3%		17.8%

(1) Annual Statement, Page 12, Exhibit of Net Investment Income.

(2) Current Tax Rate computed according to the Tax Cuts and Jobs Act of 2017:

Under the Tax Laws, 25% of formerly tax-exempt income from securities purchased after August 7, 1986 is taxable. Fifty percent of stock dividends are taxed at 21% and fifty percent are taxed at 25% of 21%. Thus, the estimated effective tax rate will be:

Ordinary Income	21.0%	
Tax Exempt Bonds	5.3%	= 0.25 × 21%
Stock Dividends	13.1%	= [0.50 + (0.50 × 0.25)] × 21%

EXHIBIT 9F
STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY
ALL LINES COMBINED

EXPECTED TOTAL RETURN - ADJUSTMENT TO GAAP

Item	Amount (000's)	Source
(1) 12/31/2022 Assumed Policyholder Protection Fund	\$24,346,799	(f) × Leverage Ratio (\$0.50 Capital : \$1.00 WP)
(2) Provision for Reinsurance	\$0	Annual Statement Page 3, Line 16, Column 1
(3) Non-Admitted Assets	\$900,408	Annual Statement Page 13, Lines 15 to 25, Column 1 - Page 13, Line 2501, Column 1
(4) Equity in the Unearned Premium and Advance Premium Reserves	\$2,873,306	(h)
(5) Total Adjustments	\$3,773,714	(2) + (3) + (4)
(6) GAAP Surplus Adjustment Factor	1.1550	[(5) + (1)] / (1)

Calculation of Equity in the Unearned & Advance Premium Reserves

Item	Amount (000's)	Source
(a) Commissions and Brokerage Expense Incurred	\$5,675,638	IEE, Part I, Line 2.8 + Line 3 Column 2
(b) Taxes, License & Fees Incurred	\$942,380	IEE, Part I, Line 20.5, Column 4
(c) Other Acquisition Expenses Incurred	\$2,838,094	IEE, Part I, Line 19 + Line 24 – Line 3, Column 2
(d) General Expenses Incurred	\$1,225,105	IEE, Part I, Line 25, Column 3
(e) Underwriting (Prepaid) Expenses Incurred	\$10,068,664	(a) + (b) + (c) + 1/2 (d)
(f) 2022 Written Premium	\$48,693,599	Annual Statement Page 6, Part 1, Line 35, Column 1
(g) 2022 Ending Unearned Premium and Advance Premium Reserves	\$13,895,749	Annual Statement, Page 3, Lines 9 & 10
(h) Equity in the Unearned Premium and Advance Premium Reserves	\$2,873,306	(g) × [(e) / (f)]

Exhibit 10
State Farm Fire and Casualty Company
Arizona Private Passenger
Indicated Rate Change
Policies Effective: 6/17/2024 New 6/17/2024 Renewal

- (1) Projected Non-Provisional Credibility Weighted Loss & LAE (L)
- (2) Catastrophe Provision (C)
- (3) Fixed Expenses (F)
- (4) Variable Expenses (V)
- (5) Profit & Contingencies (Q)

$$\text{Indicated Change} = \frac{L * (1 + C) + F}{1 - V - Q} - 1$$

Coverage (% of Projected Premium)

Bodily Injury & Property Damage Liability	Uninsured Bodily Injury	Underinsured Bodily Injury
86.3%	124.5%	116.6%
0.0%	0.0%	0.0%
3.8%	3.8%	3.8%
15.6%	15.6%	15.6%
0.0%	0.0%	0.0%
6.8%	41.0%	32.7%

All Coverages* **12.4%**

All data is aggregated through 10/31/2023
 Premiums, Losses, and Expenses are projected to 3/18/2025

* Weighted average of all coverages including additional miscellaneous coverages not shown, using the latest fiscal accident year current level earned premium.

EXHIBIT 11
STATE FARM INSURANCE COMPANIES
PRIVATE PASSENGER
BUSINESS USE FACTORS

Business Use Relative Loss Ratios

Coverage	Age Range	2018-2022 Rel. Loss Ratio
BIPD	16-29	128%
	30-74	123%
	75+	121%

Bodily Injury and Property Damage

Age	Present Factor	Guideline	Proposed Factor	Percentage Change
16	1.15	1.24	1.24	7.8%
17	1.15	1.24	1.24	7.8%
18	1.15	1.24	1.24	7.8%
19	1.15	1.24	1.24	7.8%
20	1.15	1.24	1.24	7.8%
21	1.15	1.24	1.24	7.8%
22	1.15	1.24	1.24	7.8%
23	1.15	1.24	1.24	7.8%
24	1.15	1.24	1.24	7.8%
25	1.15	1.24	1.24	7.8%
26	1.15	1.24	1.24	7.8%
27	1.15	1.24	1.24	7.8%
28	1.15	1.24	1.24	7.8%
29	1.15	1.24	1.24	7.8%
30	1.15	1.24	1.24	7.8%
31	1.14	1.24	1.24	8.8%
32	1.14	1.24	1.24	8.8%
33	1.14	1.24	1.24	8.8%
34	1.14	1.24	1.24	8.8%
35	1.14	1.24	1.24	8.8%
36	1.13	1.24	1.24	9.7%
37	1.13	1.24	1.24	9.7%
38	1.13	1.24	1.24	9.7%
39	1.13	1.24	1.24	9.7%
40	1.13	1.24	1.24	9.7%
41	1.12	1.23	1.23	9.8%
42	1.12	1.23	1.23	9.8%

43	1.12	1.23	1.23	9.8%
44	1.12	1.23	1.23	9.8%
45	1.12	1.23	1.23	9.8%
46	1.12	1.23	1.23	9.8%
47	1.12	1.23	1.23	9.8%
48	1.12	1.23	1.23	9.8%
49	1.12	1.23	1.23	9.8%
50	1.12	1.23	1.23	9.8%
51	1.12	1.23	1.23	9.8%
52	1.12	1.23	1.23	9.8%
53	1.12	1.23	1.23	9.8%
54	1.12	1.23	1.23	9.8%
55	1.12	1.23	1.23	9.8%
56	1.12	1.23	1.23	9.8%
57	1.12	1.23	1.23	9.8%
58	1.12	1.23	1.23	9.8%
59	1.12	1.23	1.23	9.8%
60	1.12	1.23	1.23	9.8%
61	1.12	1.23	1.23	9.8%
62	1.12	1.23	1.23	9.8%
63	1.12	1.23	1.23	9.8%
64	1.12	1.23	1.23	9.8%
65	1.12	1.23	1.23	9.8%
66	1.12	1.23	1.23	9.8%
67	1.11	1.22	1.22	9.9%
68	1.11	1.22	1.22	9.9%
69	1.11	1.22	1.22	9.9%
70	1.1	1.21	1.21	10.0%
71	1.1	1.21	1.21	10.0%
72	1.1	1.21	1.21	10.0%
73	1.1	1.21	1.21	10.0%
74	1.1	1.21	1.21	10.0%
75	1.08	1.19	1.19	10.2%
76	1.05	1.16	1.16	10.5%
77	1.02	1.12	1.12	9.8%
78	1	1.1	1.1	10.0%
79	1	1.1	1.1	10.0%
80	1	1.1	1.1	10.0%
81	1	1.1	1.1	10.0%
82	1	1.1	1.1	10.0%
83	1	1.1	1.1	10.0%
84	1	1.1	1.1	10.0%
85	1	1.1	1.1	10.0%
86	1	1.1	1.1	10.0%
87	1	1.1	1.1	10.0%
88	1	1.1	1.1	10.0%
89	1	1.1	1.1	10.0%

90	1	1.1	1.1	10.0%
91	1	1.1	1.1	10.0%
92	1	1.1	1.1	10.0%
93	1	1.1	1.1	10.0%
94	1	1.1	1.1	10.0%
95	1	1.1	1.1	10.0%
96	1	1.1	1.1	10.0%
97	1	1.1	1.1	10.0%
98	1	1.1	1.1	10.0%
99	1	1.1	1.1	10.0%
