

ABC Auto Insurance Company
Actuarial Review of Loss and LAE Reserves
As of 12/31/11

Prepared by:
Joe Actuary, ACAS, MAAA
What's the Point Actuarial Consultants, Inc.

Background and Scope

ABC Auto Ins Co (ABC) is a wholly owned subsidiary of XYZ Ins Co, which in turn is owned by the Alphabet Group. ABC writes minimum limits private passenger auto insurance. The business is written through its affiliated managing general agent, LMNOP General Agency. ABC began writing in 2007. ABC is licensed in various states, but the business is concentrated in Texas, California, Alabama, and Louisiana.

ABC has various quota share reinsurance contracts in place. Historically, ABC has ceded between 30% and 50% of its exposure with various reinsurers. The table below provides a summary of the quota share cessions by policy date.

Imagine an informative table here

What's the Point Actuarial Consultants, Inc., was engaged by ABC to perform an independent review of loss and loss adjustment expense (LAE) reserves of ABC as of 12/31/11 in support of Statement of Actuarial Opinion for the Company. Mr. Joe Actuary is the appointed actuary for reserve opinion purposes. He is a member of the American Academy of Actuaries and meets the qualification standards for rendering statements of actuarial opinion. He is also an associate and member in good standing of the Casualty Actuarial Society.

Our review was based on claim data evaluated through December 31, 2011 and other information provided by ABC through the date of this report. We are not aware of any changes in the claim data subsequent to December 31, 2011, that would have a material impact on our results.

Summary of Results

Given the uncertainty associated with recent changes to the claims handling process, we produced a range of reasonable estimates as shown in the following table.

	Net		Gross	
	Low	High	Low	High
Indicated	27,684	31,662	57,984	68,689
Carried		28,437		61,472

The above estimates are net of salvage and subrogation. As shown above, ABC's carried reserves are within our range of reasonable estimates. Even though we have produced a range, this range does not represent the range of all possible outcomes. Actual results could fall outside of the range, either higher or lower.

Our estimates are presented as actuarial central estimates. The phrase "actuarial central estimate" should be interpreted to mean an estimate of an expected value over the range of reasonably possible outcomes given the set of underlying assumptions. These estimates are not defined by a precise statistical measure, but are selected from multiple indications produced by a variety of generally accepted actuarial methods. Reasonable alternative sets of assumptions and judgments would produce different estimates of the actuarial central estimate and thus actual experience may deviate from the actuarial central estimates.

ABC's auto program is relatively new and has grown significantly since inception in 2007; therefore, there is limited historical data. We considered industry loss statistics for similar minimum limits auto programs. As a result, many of our reserve estimates are based on external information. ABC's business may exhibit different loss development patterns and different loss ratio than these sources.

In performing this analysis, we relied on data provided by Mr. John Accountant, President of the Company. We did not audit this data, but we did review the data for reasonableness and consistency. We noted no errors that would materially affect our recommendations. Further, we reconciled the data used in our analysis to the data shown in Schedule P – Part 1 of ABC's annual statement. In particular, we reconciled earned premium, 2011 calendar year paid loss and LAE amounts, and the 12/31/11 case loss reserve amounts.

We note that the carried reserves create exceptional values for IRIS tests #11 and #12. The exceptional values result mainly from adverse loss development for bodily injury coverage for all prior accident years.

Analysis

Reserves for ABC's bodily injury liability, property damage liability, and auto physical damage coverages were determined separately. For each segment, we projected gross ultimate loss and ALAE for each accident year using the loss development method, Bornhuetter-Ferguson method, and Frequency-Severity method.

Loss development method: This method depends on the assumption that future losses will develop consistently with historical losses. Loss development factors are derived by analyzing historic losses by accident year and are applied to paid and reported losses as of the current evaluation date to obtain ultimate losses.

B-F method: For each accident year, we based the expected ultimate losses on the product of the selected expected loss ratio and the on-level earned premium.

Frequency-Severity method: This method is based on the estimated cost per claim (severity) times the estimated ultimate number of claims.

We selected our estimates based on a review of the methods discussed in this report and judgment. In particular, we gave more or less weight to the various methods based on an overall review of the trends in the historical data and various reasonability checks of metrics implied by our selections. Generally, we relied on the loss development method projections for more mature accident years and on the B-F and F-S method for the less mature accident years.

We calculated gross loss and ALAE reserves as of 12/31/11 as the projected gross ultimate loss and ALAE amounts less the cumulative gross paid loss and ALAE through 12/31/11.

To estimate ULAE reserves, we used the standard methodology referred to as the Calendar Year Paid to Paid method. This method assumes that 50% of the ULAE is paid when a claim is reported and 50% when it is settled. Since ABC has limited historical data, we used industry ratios. The ULAE reserve is estimated as the sum of the ULAE ratio multiplied by the IBNR reserves and 50% of the ULAE ratio multiplied by the case reserves.

To estimate net loss and ALAE IBNR reserves, we applied the ceded ratios by accident year as shown in the table at the beginning of this report. Note that reinsurance only applies to the loss and ALAE reserves; the ULAE reserve is fully retained.

We performed a multitude of reasonability checks on our estimates including the calculation of ultimate loss and ALAE ratios, ultimate average frequencies, ultimate average severities, ultimate average pure premiums, and average case reserves.

Limitations

Insert standard language regarding: reliance on data, uncertainty, variability, range of values, reinsurance, and work product distribution.

We have analyzed the risk of adverse deviation using the materiality standard of \$630,000 (approximately 10% of surplus). Based on our analysis, we have concluded that there are significant risks and uncertainties that could result in material adverse deviation. The Company has a history of only five years and has recently experienced significant growth. Given the maturity of the Company, its growth and the relationship of reserves to surplus, the Company faces the potential for material adverse deviation in reserves.

This report should be presented to the Board of Directors or Audit Committee as per the NAIC Annual Statement Instructions and retained so that it is available to state regulatory authorities for a period of seven years.

Exhibits

A: All Lines Combined Summaries, including gross-to-net reserves

B: Comparison to prior estimates

C: Auto Bodily Injury Liability - Gross

1-3 Summary of Results, including AOE calculation

4 Loss Ultimates

5-7 Bornheutter-Ferguson methods

8-9 Loss Development Methods

10-13 Frequency-Severity Methods

14-15 Loss Development triangles

16-20 Diagnostics

21 DCCE Ultimates

22-23 DCCE Development Methods

24-25 DCCE Development triangles

D: Auto Property Damage Liability - Gross

1-3 Summary of Results, including AOE calculation

4 Loss Ultimates

5-7 Bornheutter-Ferguson methods

8-9 Loss Development Methods

10-13 Frequency-Severity Methods

14-15 Loss Development triangles

16-20 Diagnostics

21 DCCE Ultimates (includes DCCE for Auto Physical Damage)

22-23 DCCE Development Methods

24-25 DCCE Development triangles

E: Auto Physical Damage - Gross

1-3 Summary of Results, including AOE calculation

4 Loss Ultimates

5-7 Bornheutter-Ferguson methods

8-9 Loss Development Methods

10-13 Frequency-Severity Methods

14-15 Loss Development triangles

16-18 Diagnostics

F: Reconciliation

1 Auto Liability Paid Data

2 Auto Liability Case Reserves and Earned Premium

3 Auto Physical Damage Paid Data

4 Auto Physical Damage Case Reserves and Earned Premium

For purposes of this sample report, only the bolded exhibits are included.

All Lines
Loss & DCCE - Ultimate Indications
(\$000 Omitted)

	(1)	(2)	(3)
Gross	2010	2011	
Acc Yr	Ult Loss & DCCE	Ult Loss & DCCE	Difference
2007	9,326,452	9,750,309	423,857
2008	27,496,493	28,545,023	1,048,530
2009	38,572,239	41,726,855	3,154,616
2010	51,856,247	56,584,157	4,727,910
Total	127,251,431	136,606,343	9,354,912

	(4)	(5)	(6)
Net	2010	2011	
Acc Yr	Ult Loss & DCCE	Ult Loss & DCCE	Difference
2007	9,326,452	9,750,309	423,857
2008	19,247,545	19,981,516	733,971
2009	23,143,343	25,036,113	1,892,769
2010	25,928,124	28,292,078	2,363,955
Total	77,645,464	83,060,016	5,414,552

(1) ,(4) What's the Point 2010 actuarial report

(2) ,(5) Exhibit A

(3) Column (2) - Column (1)

(6) Column (5) - Column (4)

**Bodily Injury Liability - Direct & Assumed Basis
Loss Analysis - Ultimate Indications**
(\$000 Omitted)

Accident Year	(1) Paid Development Method	(2) Reported Development Method	(3) Bornhuetter- Ferguson (Paid)	(4) Bornhuetter- Ferguson (Rptd)	(5) Frequency * Severity	(6) Selected
2007	3,023	3,010	3,036	3,011	3,240	3,064
2008	8,511	8,497	8,537	8,499	8,438	8,496
2009	15,638	14,814	16,072	14,875	14,798	15,239
2010	29,207	31,606	28,431	30,547	32,512	29,461
2011	28,356	37,490	29,944	33,194	35,126	30,822
Totals	84,735	95,416	86,020	90,126	94,113	87,083

(1) Exhibit C8 Column (8)
 (2) Exhibit C9 Column (8)
 (3) Exhibit C5 Column (11)

(4) Exhibit C6 Column (11)
 (5) Exhibit C10 Column (9)
 (6) Selected

Bodily Injury Liability - Direct & Assumed Basis
Loss Analysis - Reported Loss Triangle
(\$000 Omitted)

Accident Year	Development Months									
	12	24	36	48	60	72	84	96	108	120
2007	6,629	4,933	7,950	7,683	7,718					
2008	4,307	5,785	7,958	8,532						
2009	8,153	9,825	14,533							
2010	14,897	22,357								
2011	19,375									

Age-to-Age Ratios

Accident Year	Development Months									
	12 - 24	24 - 36	36 - 48	48 - 60	60 - 72	72 - 84	84 - 96	96 - 108	108 - 120	120 - ULT
2007	0.751	1.598	0.977	1.007						
2008	1.289	1.394	1.066							
2009	1.177	1.479								
2010	1.492									

Arithmetic Averages:

Last 3	1.320	1.490	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Last 5	1.177	1.490	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ex Hi & Lo	1.233	1.479	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Volume Weighted:

Last 3	1.388	1.482	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Last 5	1.262	1.482	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Overall

1.177	1.490	1.022	1.007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-ULT
Selected	1.365	1.350	1.020	1.006	1.003	1.001	1.000	1.001	1.000	1.010
Cumulative	1.919	1.406	1.042	1.021	1.015	1.012	1.011	1.011	1.010	1.010

Industry

Select	1.167	1.046	1.019	1.006	1.003	1.001	1.000	1.001	1.000	1.003
Cumulative	1.261	1.081	1.033	1.014	1.008	1.005	1.004	1.004	1.003	1.003

Liability Property Damage - Direct & Assumed Basis
DCCE Analysis - Paid Triangle
 (\$000 Omitted)

Accident Year	Development Months									
	12	24	36	48	60	72	84	96	108	120
2007		1	2	3	2					
2008	58	64	70	72						
2009	203	221	231							
2010	129	180								
2011	125									

Age-to-Age Ratios

Accident Year	Development Months									
	12 - 24	24 - 36	36 - 48	48 - 60	60 - 72	72 - 84	84 - 96	96 - 108	108 - 120	120 - ULT
2007		1.500	2.000	0.667						
2008	1.103	1.094	1.029							
2009	1.089	1.045								
2010	1.395									

Arithmetic Averages:

Last 3	1.196	1.213	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Last 5	1.196	1.213	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ex Hi & Lo	1.103	1.094	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Volume Weighted:										
Last 3	1.192	1.058	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Last 5	1.195	1.058	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Overall	1.196	1.213	1.514	0.667	n/a	n/a	n/a	n/a	n/a	n/a

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-ULT
Select	1.196	1.069	1.030	1.020	1.016	1.008	1.003	1.002	1.001	1.005
Cumulative	1.391	1.163	1.088	1.056	1.035	1.019	1.011	1.008	1.006	1.005

Industry										
Select	1.688	1.168	1.079	1.039	1.016	1.008	1.003	1.002	1.001	1.005
Cumulative	2.289	1.356	1.161	1.076	1.035	1.019	1.011	1.008	1.006	1.005

Auto Liability - Direct & Assumed Basis**Reconciliation**

(\$000 Omitted)

Accident	Schedule P Data			Case Reserves	Difference
	Case Reserves			Analysis	
Year	Loss	DCCE	Total	Data	
2007	107	1	108	107	(1)
2008	898	5	903	903	0
2009	3,248	13	3,261	3,262	1
2010	8,435	38	8,473	8,472	(1)
2011	17,197	134	17,331	17,328	(3)
Totals	29,885	191	30,076	30,072	(4)

Accident	Earned Premium		
	Schedule P	Analysis	Difference
2007	12,359	11,514	845
2008	33,997	31,205	2,792
2009	58,237	46,357	11,880
2010	79,350	67,009	12,341
2011	78,856	70,842	8,014
Totals	262,799	226,927	35,872