Basic Track II
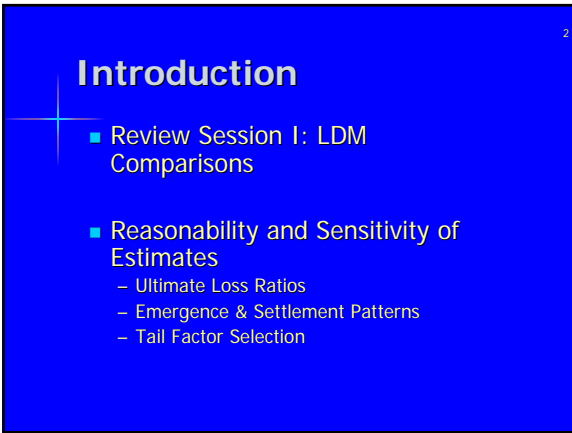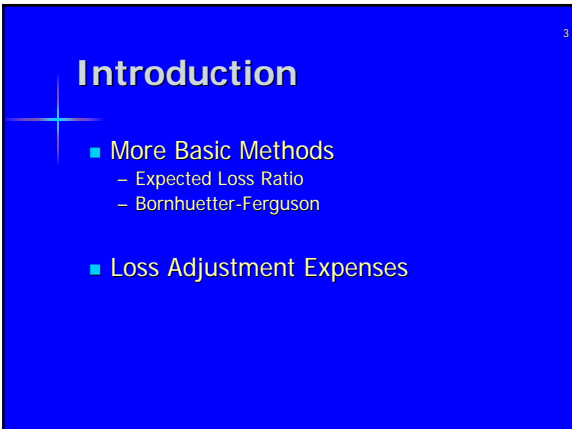
2010 CLRS
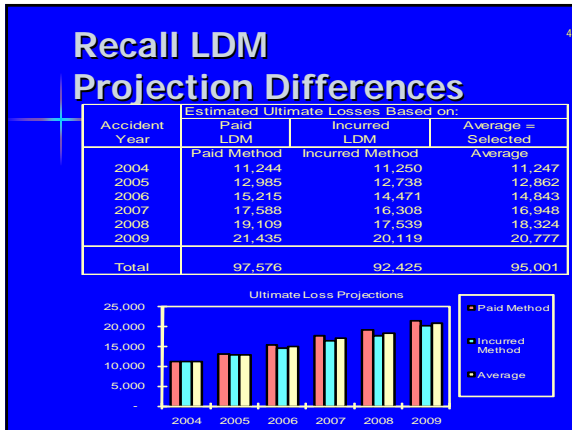September 20-21, 2010
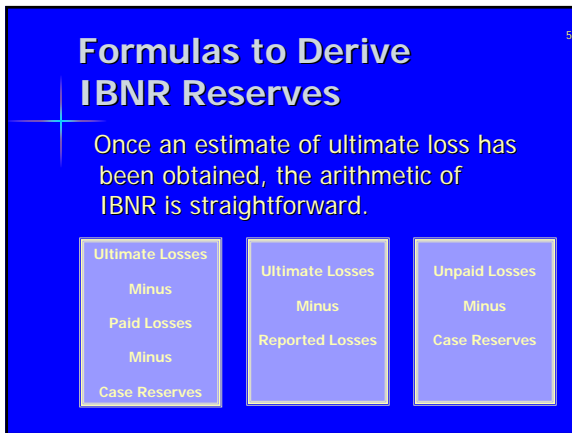Lake Buena Vista, FL

2

Introduction

- Review Session I: LDM Comparisons

- Reasonability and Sensitivity of Estimates
  - Ultimate Loss Ratios
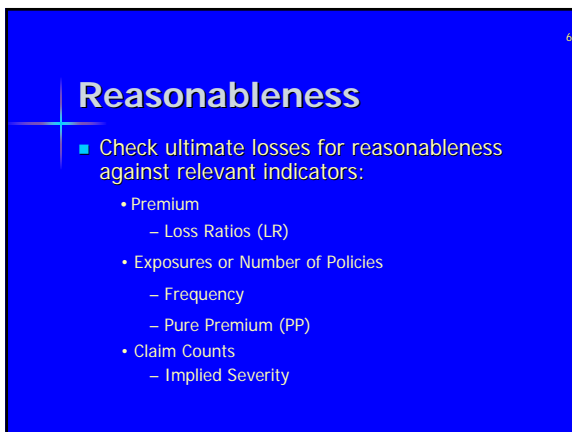 - Emergence & Settlement Patterns
  - Tail Factor Selection

3

Introduction

- More Basic Methods
  - Expected Loss Ratio
  - Bornhuetter-Ferguson

- Loss Adjustment Expenses

Recall LDM Projection Differences

4

Accident Year	Estimated Ultimate Losses Based on:		
	Paid LDM	Incurred LDM	Average = Selected
	Paid Method	Incurred Method	Average
2004	11,244	11,250	11,247
2005	12,985	12,738	12,862
2006	15,215	14,471	14,843
2007	17,588	16,308	16,948
2008	19,109	17,539	18,324
2009	21,435	20,119	20,777
Total	97,576	92,425	95,001

Ultimate Loss Projections

- Paid Method
- Incurred Method
- Average

Formulas to Derive IBNR Reserves

5

Once an estimate of ultimate loss has been obtained, the arithmetic of IBNR is straightforward.

Ultimate Losses Minus Paid Losses Minus Case Reserves	Ultimate Losses Minus Reported Losses	Unpaid Losses Minus Case Reserves

Reasonableness

6

- Check ultimate losses for reasonableness against relevant indicators:
  - Premium
    - Loss Ratios (LR)
  - Exposures or Number of Policies
    - Frequency
    - Pure Premium (PP)
  - Claim Counts
    - Implied Severity

Reasonableness

7

- Assumptions & Methods
  - Document
    - Notes on spreadsheets
    - Written report detailing assumptions
  - Sensitivity analyses
    - Tests performed
    - Results of tests

Reasonableness Checks: Ultimate Loss Ratios

8

Accident Year	Earned Premium	Est. Ultimate Losses ($000) Using:			Indicated Loss Ratio Using:		
		PLDM	ILDM	Selected	PLDM	ILDM	Selected
2004	18,168	11,244	11,250	11,247	0.619	0.619	0.619
2005	21,995	12,985	12,738	12,862	0.590	0.579	0.585
2006	24,173	15,215	14,471	14,843	0.629	0.599	0.614
2007	25,534	17,588	16,308	16,948	0.689	0.639	0.664
2008	31,341	19,109	17,539	18,324	0.610	0.560	0.585
2009	38,469	21,435	20,119	20,777	0.557	0.523	0.540
Total	159,680	97,576	92,425	95,001	0.611	0.579	0.595

Reasonableness Checks: Ultimate Loss Ratios

9

Sensitivity Analysis: Current Year Analysis

10

- Improvements in results may stem from:
  - Higher rates
  - Lower claim frequency
  - Lower claim severity
- Better results would *appear* to be present if:
  - Claims were being processed or paid more slowly
  - Case reserves were less adequate
  - Mix of business is different

Sensitivity Analysis: Ratios

11

- Review historical relationships
  - Losses
    - Paid losses to reported losses
  - Claim counts
    - Settlement
    - Ratio of claims closed with no payment to total closed claims
  - Losses and Claim Counts
    - Severities or average values

Sensitivity Analysis: Ratios - Paid to Reported

12

Cumulative Paid Losses ($000 Omitted)			
Accident	Development Stage in Months		
Year	12	24	36
2004	3,780	6,671	8,156
2005	4,212	7,541	
2006	4,901		

Cumulative Case Reported Losses ($000 Omitted)			
Accident	Development Stage in Months		
Year	12	24	36
2004	9,337	10,847	11,092
2005	10,540	12,205	
2006	11,875		

Ratio Paid to Case Reported			
Accident	Development Stage in Months		
Year	12	24	36
2004	+3,780 / 9,337	+6,671 / 10,847	
2005	+4,212 / 10,540		
2006			

Slide 13

Sensitivity Analysis:
Ratios - Paid to Reported

Cumulative Paid Losses ($000 Omitted)			
Accident	Development Stage in Months		
Year	12	24	36
2004	3,780	6,671	8,156
2005	4,212	7,541	
2006	4,901		

Cumulative Case Reported Losses ($000 Omitted)			
Accident	Development Stage in Months		
Year	12	24	36
2004	9,337	10,847	11,092
2005	10,540	12,205	
2006	11,875		

	Ratio Paid to Case Reported		
Accident	Development Stage in Months		
Year	12	24	36
2004	0.405	0.615	0.735
2005	0.400	0.618	
2006	0.413		

Slide 14

Sensitivity Analysis:
Ratios - Paid to Reported

	Ratio Paid to Case Reported					
Accident	Development Stage in Months					
Year	12	24	36	48	60	72
2004	0.405	0.615	0.735	0.822	0.889	0.934
2005	0.400	0.618	0.745	0.838	0.907	
2006	0.413	0.641	0.772	0.864		
2007	0.428	0.661	0.790			
2008	0.421	0.666				
2009	0.420					

Slide 15

Sensitivity Analysis:
Ratios - Average Reported

	Average Reported Loss					
Accident	Development Stage in Months					
Year	12	24	36	48	60	72
2004	6,539	3,913	3,892	3,905	3,915	3,895
2005	6,164	4,025	4,067	4,101	4,092	
2006	8,744	4,976	4,762	4,804		
2007	8,836	6,005	6,049			
2008	9,724	6,442				
2009	10,325					

Tail Factors: Impact of Selection

16

Accident Year	Reported Losses @ 12/31/09	Selected LDF's		Estimated Ultimate Losses	Earned Premium	Revised Loss Ratio	Unpaid Losses @ 12/31/09
		LDF	Age to Ult.				
2004	11,250	1.000	1.000	11,250	18,168	61.9%	742
2005	12,725	1.001	1.001	12,738	21,995	57.9%	1,202
2006	14,413	1.003	1.004	14,471	24,173	59.9%	2,013
2007	16,066	1.011	1.015	16,308	25,534	63.9%	3,609
2008	16,776	1.030	1.045	17,539	31,341	56.0%	6,367
2009	16,561	1.162	1.215	20,119	38,469	52.3%	13,157
Total	87,791			92,425	159,680	57.9%	27,090

Tail Factors: Impact of Selection

17

Effect on Estimates Given a 2% Increase in Reported Losses Tail Factor

Accident Year	Reported Losses @ 12/31/09	Selected LDF's		Estimated Ultimate Losses	Earned Premium	Revised Loss Ratio	Unpaid Losses @ 12/31/09
		LDF	Age to Ult.				
2004	11,250	1.020	1.020	11,475	18,168	63.2%	967
2005	12,725	1.001	1.021	12,992	21,995	59.1%	1,456
2006	14,413	1.003	1.024	14,759	24,173	61.1%	2,301
2007	16,066	1.011	1.035	16,628	25,534	65.1%	3,929
2008	16,776	1.030	1.066	17,883	31,341	57.1%	6,711
2009	16,561	1.162	1.239	20,519	38,469	53.3%	13,557
Total	87,791			94,256	159,680	59.0%	28,921

Estimated Unpaid Losses Based on Original ILDM (Without the 2% Tail Factor Increase)	27,090

Increase in Estimated Unpaid Losses Due to Increased Tail Factor	6.8%

Selection of Tail Factors

18

- Ultimate losses increase by
  - $1.8 million
  - 2.0% increase in ultimate losses
- Loss reserves also increase by
  - $1.8 million
  - 6.8% increase in overall reserve levels!
- IBNR reserves also increase by
  - $1.8 million
  - 40.0% in overall IBNR levels!!!!
- Biggest impacts are in the most recent year.

More Basic Methods

19

- Expected Loss
  - Estimating the ultimate
- Bornhuetter-Ferguson
  - Estimating the reserve

⋮

• Many, many others available

EXPECTED LOSS RATIO METHOD

20

EXPECTED LOSS RATIO (ELR).

The anticipated ratio of projected ultimate losses to earned premiums.

Sources:
- Pricing assumptions
- Historical data such as Schedule P
- Industry data

EXPECTED LOSS RATIO METHOD

21

	Percent of Premium
Commissions	20.0%
Taxes	5.0%
General Expenses	15.0%
Profit	-2.0%
Total	38.0%
Expected Loss Ratio	62.0%

(Available for Loss and Loss Adjustment Expense)

EXPECTED LOSS RATIO METHOD

22

Schedule P - Part 1B
Private Passenger Auto Liability/Medical

Years Premiums Earned and Losses Incurred		Loss and Loss Expense Percentage (Incurred/Premiums Earned)		
		Direct and Assumed	Ceded	Net
1.	Prior	XXXX	XXXX	XXXX
2.	2000	73.1%	73.8%	72.4%
3.	2001	66.6%	65.9%	67.3%
4.	2002	70.3%	68.9%	71.7%
5.	2003	69.0%	70.6%	67.4%
6.	2004	74.1%	75.0%	73.2%
7.	2005	80.2%	83.3%	77.1%
8.	2006	60.5%	59.1%	61.9%
9.	2007	62.6%	61.3%	63.9%
10.	2008	66.7%	68.0%	65.4%
11.	2009	67.0%	68.3%	65.7%
	3 year average			65.0%
	5 year average			66.8%

EXPECTED LOSS RATIO METHOD

23

- **Estimating Reserves Based on ELR**

  - Earned Premium x ELR   =   Expected Ultimate Losses

  - Ultimate Losses- Paid Losses   =   Total Reserve

  - Total Reserve   - Case Reserve =   IBNR Reserve

EXPECTED LOSS RATIO METHOD

24

Estimating Reserves Based on ELR

Earned Premium	=	$ 100,000
Expected Loss Ratio	=	0.65
Paid Losses	=	$ 10,000
Case Reserves	=	$ 13,000
Total Reserve	=	($100,000 x 0.65) - $10,000
	=	$65,000 - $10,000
	=	$55,000
IBNR Reserve	=	$55,000 - $13,000
	=	$42,000

EXPECTED LOSS RATIO METHOD [25]

Estimating Reserves Based on ELR

Use when you have no history such as:
- New product lines
- Radical changes in product lines
- Immature accident years for long tailed lines

Can generate negative reserves or negative IBNR if
- Ultimate Losses < Paid Losses—MOST LIKELY ILLOGICAL!!!
- Ultimate Losses < Incurred Losses

BORNHUETTER-FERGUSON METHOD [26]

Reserves Based on ELR and Actual Loss

(EP x ELR) x (IBNR Factor) = (IBNR Reserves)
Where IBNR Factor = (1.000 - 1.000/CDF)
Actual + IBNR Reserve = Ultimate Losses

Case Reserve + IBNR Reserve = Total Reserve

The IBNR Factor is the percent of expected losses unreported.

BORNHUETTER-FERGUSON METHOD [27]

Accident Year	Evaluation Interval in Months		
	12-24	24-36	36-48
2004	1.162	1.023	1.009
2005	1.158	1.028	1.011
2006	1.165	1.029	1.012
2007	1.165	1.034	
2008	1.159		
2009			
Selected LDF	1.162	1.030	1.011
Cumulative LDF	1.215	1.045	1.015

IBNR Factor = 1.000 - 1.000/Cumulative Loss Development Factor
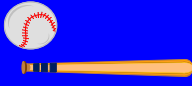
+1.000 - 1.000/1.215   +1.000 - 1.000/1.015

| IBNR Factor | 0.177 | 0.044 | 0.015 |

BORNHUETTER-FERGUSON METHOD [28]

Accident Year	Evaluation Interval in Months					
	12-24	24-36	36-48	48-60	60-72	72 to Ultimate
2004	1.162	1.023	1.009	1.004	1.001	???
2005	1.158	1.028	1.011	1.003		
2006	1.165	1.029	1.012			
2007	1.165	1.034				
2008	1.159					
2009						
Average - All Years	1.162	1.029	1.011	1.004	1.001	
Average - Latest 3 Years	1.163	1.030	1.011	XXX	XXX	
Average - Excl Hi & Lo	1.162	1.029	1.011	XXX	XXX	
Wt Average - All Years	1.162	1.029	1.011	1.003	1.001	
Selected LDF	1.162	1.030	1.011	1.003	1.001	1.000
Cumulative LDF	1.215	1.045	1.015	1.004	1.001	1.000

IBNR Factor = 1.000 - 1.000/Cumulative Loss Development Factor						
IBNR Factor	0.177	0.044	0.015	0.004	0.001	-

BORNHUETTER-FERGUSON METHOD [29]

Accident Year (1)	Earned Premium (2)	Assumed Expected Loss Ratio (3)	Assumed Expected Losses (4) (2) x (3)	IBNR Factor (5)	Estimated IBNR (6) (4) x (5)	Cumulative Incurred Losses (7)	Estimated Ultimate Losses (8) (6) + (7)
2004	18,168	62.0%	11,264.16	-	-	11,250	11,250
2005	21,995	62.0%	13,636.90	0.001	14	12,725	12,739
2006	24,173	62.0%	14,987.26	0.004	60	14,413	14,473
2007	25,534	62.0%	15,831.08	0.015	235	16,066	16,301
2008	31,341	62.0%	19,431.42	0.044	846	16,776	17,622
2009	38,469	62.0%	23,850.78	0.177	4,218	16,561	20,779
Total	159,680		99,001.60		5,372	87,791	93,163

Comparison of Methods [30]

B-F Applied to Non Insurance

31

Given the following, how many home runs will Ryan Howard hit this year?

He has hit 20 home runs through 40 games
There are 160 games in a season

Information is needed to perform
a Bornhuetter-Ferguson (B-F) projection:

Expected Ultimate Value
Factor to Project to Actual Data to Ultimate
Actual Data To Date

B-F Applied to Non Insurance

32

Information for our example :
Before the season started, how many home runs would we have expected Ryan Howard to hit?

Expected Ultimate Value = 40

To project season total from current statistics,
multiply the current statistics by 4 since the season is 1/4 completed.

Projection Factor = 4.000

He has already hit 20 home runs.

Actual Hits To Date = 20

B-F Applied to Non Insurance

33

B-F Projection: Ultimate Value =
(Expected Value*IBNR Factor)+(Inc. to Date)

- IBNR Factor = 1.000 - (1.000/LDF) = 1.000 - (1.000/4.000) = .75

  (In Other Words, 75% of the season is left to be played)

- Ultimate Value = (40 * .75) + 20 = 50

The B-F Method projects that Ryan Howard will hit 50 home runs this year.

Games 0-40	Games 41-80	Games 81-120	Games 121-160
20 Home Runs	10 Home Runs	10 Home Runs	10 Home Runs

B-F Applied to Non Insurance

34

Comparison of B-F with Two Other Methods

Incurred Loss Development Method
Ultimate Value = Incurred To Date * Cumulative LDF
= 20 * 4.000 = 80 Home Runs

Games 0-40	Games 41-80	Games 81-120	Games 121-160
20 Home Runs	20 Home Runs	20 Home Runs	20 Home Runs

Expected Loss Ratio Method
Ultimate Value = Expected Value = 40 Home Runs

Games 0-40	Games 41-80	Games 81-120	Games 121-160
10 Home Runs	10 Home Runs	10 Home Runs	10 Home Runs

Note: 40 Home Runs previously expected – 20 so far early in the season. Unless Ryan Howard is expected to slump, this method seems inappropriate.

BORNHUETTER-FERGUSON METHOD

35

ASSUMPTIONS	SAMPLE PROBLEMS
Premium is an accurate measure of exposure	Pricing Inconsistency
Expected loss ratio is predictable	Instability in accident year loss ratios
Constant reporting, case reserving and settling	Introduction of new claim systems
	Backlog in processing

BORNHUETTER-FERGUSON METHOD

36

ADVANTAGES	DISADVANTAGES
Compromise between loss development and expected loss ratio methods	Assumes that case development is unrelated to reported losses
Avoids overreaction to unexpected incurred losses to date	Relies on accuracy of expected loss ratio
Suitable for new or volatile line of business	Less responsive to losses incurred to date
Can be used with no internal loss history	Relies on accuracy of earned premium
Easy to use	

LOSS ADJUSTMENT EXPENSES (LAE)

37

- Prior to 1/1/98, the ability to assign a claim expense to a particular claim was the determining factor in how the expense was reported in the Annual Statement.

- Post 1/1/98, loss adjustment expenses are reported as either
  - Defense & Cost Containment (DCC) expenses
  - or
  - Adjusting & Other (AO) expenses

LOSS ADJUSTMENT EXPENSES (LAE)

- For most companies the definition change has had little impact.
  - DCC is nearly equal to allocated expense.
  - AO is nearly equal to unallocated expense.

LOSS ADJUSTMENT EXPENSES (LAE)

39

DEFENSE AND COST CONTAINMENT EXPENSE (DCC)

- Internal or external expenses relating to the following:
  - Defense
  - Litigation
  - Medical Cost Containment

40

LOSS ADJUSTMENT EXPENSES (LAE)

ADJUSTING AND OTHER EXPENSE (AO)

- Expenses including but not limited to the following :
  - Fees of adjusters and settling agents
  - Attorney fees incurred in the determination of coverage, including litigation between insurer and policyholder
  - Fees or salaries for appraisers, private investigators, hearing representatives, inspectors and fraud investigators

41

DCC RESERVING METHODS

1. PAID DCC DEVELOPMENT

2. RATIO CUMULATIVE PAID DCC TO CUMULATIVE PAID LOSSES

42

DCC RESERVING METHODS

Cumulative Paid DCC ($ 000)
EZ INSURANCE COMPANY AUTO LIABILITY

Accident Year	12	24	36	48	60	72	84
2003	71	166	286	416	527	611	677
2004	83	189	313	458	584	672	
2005	93	213	361	523	657		
2006	103	226	394	581			
2007	108	245	437				
2008	128	280					
2009	132						

PAID DCC DEVELOPMENT FACTORS

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2003	2.338	1.723	1.455	1.267	1.159	1.108	
2004	2.277	1.656	1.463	1.275	1.151		
2005	2.290	1.695	1.449	1.256			
2006	2.194	1.743	1.475				
2007	2.269	1.784					
2008	2.188						
Average	2.259	1.720	1.460	1.266	1.155	1.108	
4 point average	2.235	1.719	1.460				
Avg. excl. high/low	2.258	1.720	1.459				
Vol. wght. average	2.251	1.724	1.461	1.266	1.155	1.108	

43

DCC RESERVING METHODS

DCC Reserves Based on Paid DCC Development

EZ INSURANCE COMPANY AUTO LIABILITY
($ 000s)

Accident Year (1)	DCC Paid to Date (2) slide 42	Selected Factor (3) slide 42	Estimated Ultimate (4) (2) x (3)	Unpaid DCC (5) (4) - (2)
2003	677	1.108	750	73
2004	672	1.228	825	153
2005	657	1.418	931	274
2006	581	1.794	1,042	461
2007	437	2.621	1,145	708
2008	280	4.518	1,265	985
2009	132	10.170	1,342	1,210
Total	3,436		7,302	3,866

44

DCC RESERVING METHODS

DCC Reserves Based on Paid DCC Development

ADVANTAGES

Similar to paid losses;
Easy & straightforward
May work well for older accident years

DISADVANTAGES

Ignores relationship to losses

Heavily influenced by amount
of highly volatile initial payments

45

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Losses
($ 000s)
EZ INSURANCE COMPANY AUTO LIABILITY

Accident Year	12	24	36	48	60	72	84
			CUMULATIVE PAID DCC				
2003	71	166	286	416	527	611	677
2004	83	189	313	458	584	672	
2005	93	213	361	523	657		
2006	103	226	394	581			
2007	108	245	437				
2008	128	280					
2009	132						

Accident Year	12	24	36	48	60	72	84
			CUMULATIVE PAID LOSS				
2003	3,361	5,991	7,341	8,259	8,916	9,408	9,759
2004	3,780	6,671	8,156	9,205	9,990	10,508	
2005	4,212	7,541	9,351	10,639	11,536		
2006	4,901	8,864	10,987	12,458			
2007	5,708	10,268	12,699				
2008	6,093	11,172					
2009	6,962						

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Losses

EZ INSURANCE COMPANY AUTO LIABILITY

Accident ----------- CUM PAID DCC TO CUM PAID LOSSES ----- ------------

Year	12	24	36	48	60	72	84
2003	0.021	0.028	0.039	0.050	0.059	0.065	0.069
2004	0.022	0.028	0.038	0.050	0.058	0.064	
2005	0.022	0.028	0.039	0.049	0.057		
2006	0.021	0.025	0.036	0.047			
2007	0.019	0.024	0.034				
2008	0.021	0.025					
2009	0.019						

0.025 = 280 Paid DCC / 11,172 Paid Loss

46

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Losses
EZ INSURANCE COMPANY AUTO LIABILITY

Accident Year	----------- ----------- PAID TO PAID DEVELOPMENT F------------						
	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2003	1.312	1.406	1.293	1.173	1.099	1.068	
2004	1.290	1.355	1.297	1.175	1.094		
2005	1.279	1.367	1.273	1.159			
2006	1.213	1.406	1.301				
2007	1.261	1.442					
2008	1.193						
Average	1.258	1.395	1.291	1.169	1.096	1.068	
4 point avg.	1.237	1.393	1.291				
Avg. excl. high/low	1.261	1.393	1.295				
SELECTED LDFs	1.237	1.393	1.291	1.169	1.096	1.068	1.068
CUMULATIVE LDFs	3.252	2.629	1.887	1.462	1.251	1.141	1.068

47

DCC RESERVING METHODS

DCC Reserves Based on Cumulative Paid DCC to Cumulative Paid Loss Development
EZ INSURANCE COMPANY AUTO LIABILITY ($000s)

Accident Year	Ratio to Date	Devel. Factor	Developed Paid/Paid Ratio	Ultimate Losses	Ultimate DCC	Paid DCC to Date	Indicated DCC Reserves
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	slide 46	slide 47	(2) x (3)		(4) x (5)	slide 45	(6) - (7)
2003	0.069	1.068	0.074	10,292	762	677	85
2004	0.064	1.141	0.073	11,261	822	672	150
2005	0.057	1.251	0.071	12,751	905	657	248
2006	0.047	1.462	0.068	14,500	986	581	405
2007	0.034	1.887	0.065	16,326	1,061	437	624
2008	0.025	2.629	0.066	17,641	1,164	280	884
2009	0.019	3.252	0.062	20,716	1,284	132	1,152
Total				103,487	6,985	3,436	3,549

48

DCC RESERVING METHODS

49

Cumulative Paid DCC to Cumulative Paid Loss Method

ADVANTAGES	DISADVANTAGES
Recognizes relationship of DCC to losses.	Over or under estimation of losses reflected in DCC estimates.
Straightforward methodology, predictable.	More complex than paid DCC development.
Provides tool for monitoring relationship of DCC to losses.	Heavily influenced by volatile initial ratios of DCC to loss.
	Significant DCC can be spent to close claims without payment.
	Changes in legal defense strategies may distort.

AO RESERVING METHODS

50

ADJUSTING AND OTHER EXPENSE

- Expenses including but not limited to the following :
  - Fees of adjusters and settling agents
  - Attorney fees incurred in the determination of coverage, including litigation between insurer and policyholder
  - Fees or salaries for appraisers, private investigators, hearing representatives, inspectors and fraud investigators

AO RESERVING METHODS

51

THE "50/50" Rule

Assumes 50% of AO is paid when the claim is opened, and 50% is paid when the claim is closed.

AO RESERVING METHODS

52

The "50/50" Rule

- 3 year average of the ratio of calendar year paid AO to paid losses.

- 50% of the ratio applied to known case loss reserves.

- 100% of the ratio applied to IBNR reserves.

- It may be necessary to separate the "broad" IBNR reserve into development on known case reserves and "pure" IBNR.

AO RESERVING METHODS

53

Consideration in Selecting Ratio of Calendar Year Paid AO to Paid Losses

Average over 3 years may not produce appropriate factor:

- AO payments may not completely correlate to the years' loss payments

May need to judgmentally select factor based on:

- Steadily increasing or decreasing factors

- Changes in expense allocation procedures

AO RESERVING METHODS

54

Example of "50/50" Rule

EZ Insurance Co. - Auto Liability
($ 000s)

Calendar Year (1)	Paid AO (2)	Paid Losses (3)	Ratio (4) = (2) / (3)
2007	1,038	14,107	0.074
2008	1,244	15,906	0.078
2009	1,459	17,709	0.082
Total	3,741	47,722	0.078

AO RESERVING METHODS

55

Example of "50/50" Rule

Ratio of Paid AO to Paid Losses	0.078
50% of Ratio	0.039
Known Case Loss Reserves	22,989
IBNR Reserve	5,296

AO Reserve

= (0.039 x 22,989) + (0.078 x 5,296)

= 897 + 413

= 1,310

AO RESERVING METHODS

56

Assumptions in Applying "50/50" Rule

- Age of claim does not affect the ratio of paid AO to Losses

- AO and Losses are paid at the same rate

- These assumptions should be reviewed for each situation where the "50/50" rule is used

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Session II Review

57

- Review Session I: LDM Comparisons
- Reasonability and Sensitivity of Estimates
  - Ultimate Loss Ratios
  - Emergence & Settlement Patterns
  - Tail Factor Selection
- More Basic Methods
  - Expected Loss Ratio
  - Bornhuetter-Ferguson

Looking Ahead

58

- Schedule P

- Examples - You set the reserve!

Basic Track II

2010 CLRS
September 20-21, 2010
Lake Buena Vista, FL