Basic Track II

2011 CLRS

September 15-16, 2011

Las Vegas, Nevada

Introduction

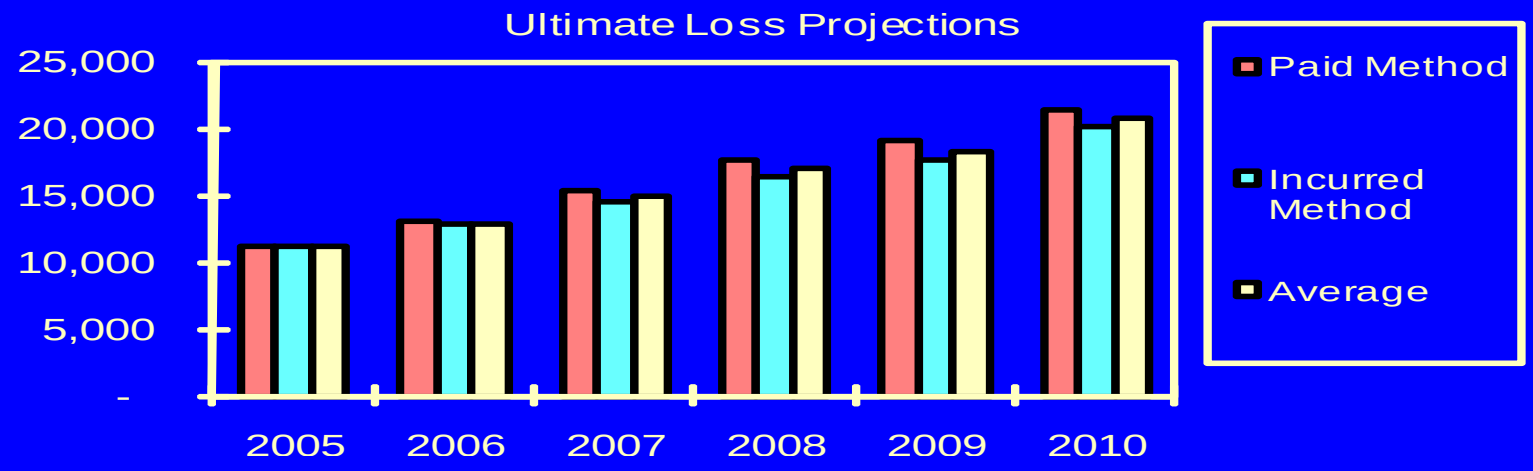
- Review Session I: LDM Comparisons
- Reasonability and Sensitivity of Estimates
  - Ultimate Loss Ratios
  - Emergence & Settlement Patterns
  - Tail Factor Selection

Introduction

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

Recall LDM Projection Differences

Accident Year	Estimated Ultimate Losses Based on: Paid LDM	Incurred LDM	Average = Selected
	Paid Method	Incurred Method	Average
2005	11,244	11,250	11,247
2006	12,985	12,738	12,862
2007	15,215	14,471	14,843
2008	17,588	16,308	16,948
2009	19,109	17,539	18,324
2010	21,435	20,119	20,777
Total	97,576	92,425	95,001



Formulas to Derive IBNR Reserves

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

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

Reasonableness

- 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

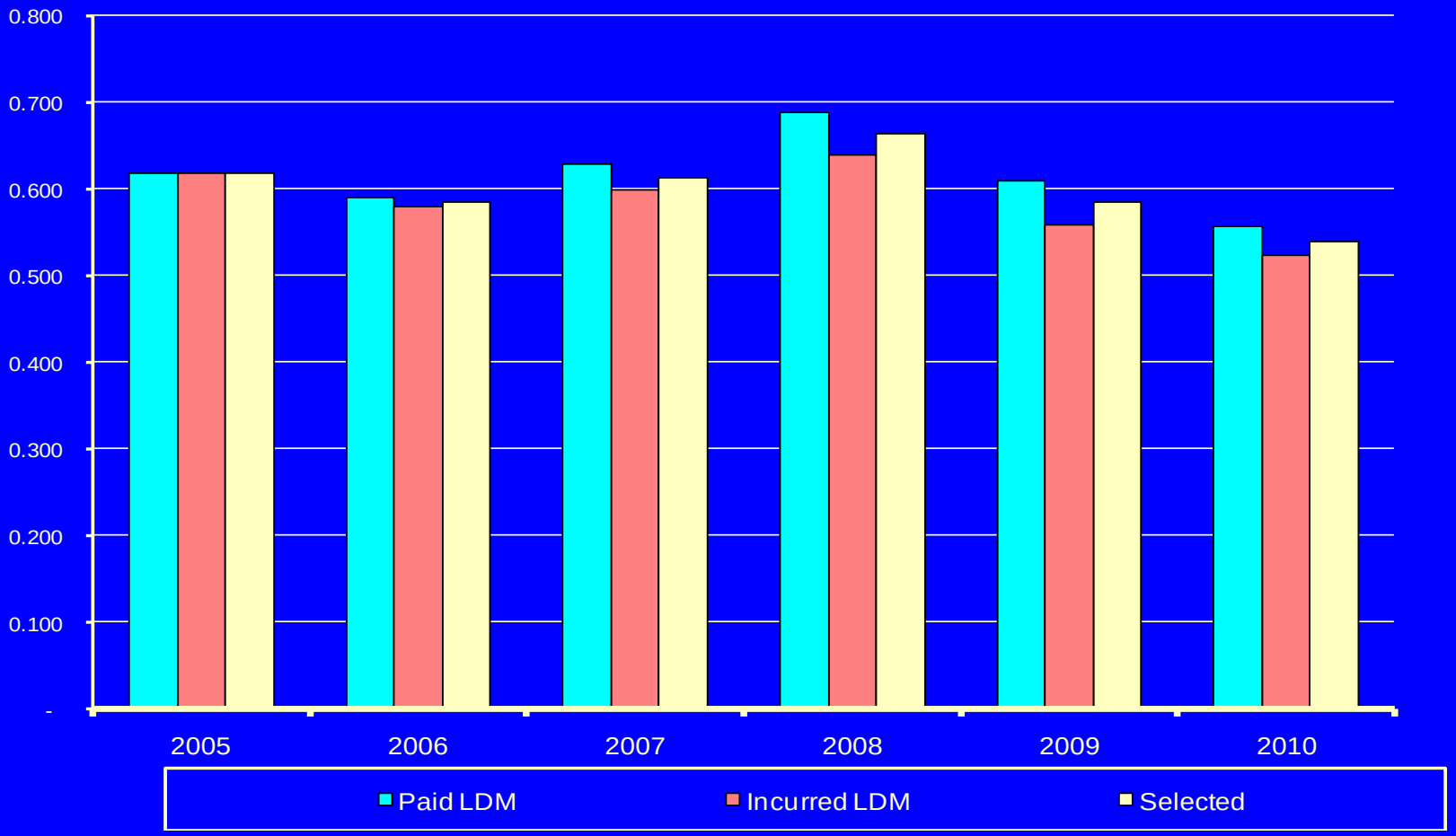
Reasonableness

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

Reasonableness Checks: Ultimate Loss Ratios

Accident Year	Earned Premium	Est. Ultimate Losses ($000) Using:			Indicated Loss Ratio Using:		
		PLDM	ILDM	Selected	PLDM	ILDM	Selected
2005	18,168	11,244	11,250	11,247	0.619	0.619	0.619
2006	21,995	12,985	12,738	12,862	0.590	0.579	0.585
2007	24,173	15,215	14,471	14,843	0.629	0.599	0.614
2008	25,534	17,588	16,308	16,948	0.689	0.639	0.664
2009	31,341	19,109	17,539	18,324	0.610	0.560	0.585
2010	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



Sensitivity Analysis: Current Year Analysis

- 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

- 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

Cumulative Paid Losses ($000 Omitted)

Accident Year	Development Stage in Months 12	24	36
2005	3,780	6,671	8,156
2006	4,212	7,541	
2007	4,901		

Cumulative Case Reported Losses ($000 Omitted)

Accident Year	Development Stage in Months 12	24	36
2005	9,337	10,847	11,092
2006	10,540	12,205	
2007	11,875		

Accident Year	Ratio Paid to Case Reported Development Stage in Months 12	24	36
2005	+3,780 / 9,337	+6,671 / 10,847	
2006	+4,212 / 10,540		
2007			

Sensitivity Analysis: Ratios - Paid to Reported

Cumulative Paid Losses ($000 Omitted)			
Accident Year	Development Stage in Months		
	12	24	36
2005	3,780	6,671	8,156
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Cumulative Case Reported Losses ($000 Omitted)			
Accident Year	Development Stage in Months		
	12	24	36
2005	9,337	10,847	11,092
2006	10,540	12,205	
2007	11,875		

Accident Year	Ratio Paid to Case Reported Development Stage in Months		
	12	24	36
2005	0.405	0.615	0.735
2006	0.400	0.618	
2007	0.413		

Sensitivity Analysis: Ratios - Paid to Reported

Accident Year	Ratio Paid to Case Reported Development Stage in Months					
	12	24	36	48	60	72
2005	0.405	0.615	0.735	0.822	0.889	0.934
2006	0.400	0.618	0.745	0.838	0.907	
2007	0.413	0.641	0.772	0.864		
2008	0.428	0.661	0.790			
2009	0.421	0.666				
2010	0.420					

Sensitivity Analysis: Ratios - Average Reported

Accident Year	Average Reported Loss Development Stage in Months					
	12	24	36	48	60	72
2005	6,539	3,913	3,892	3,905	3,915	3,895
2006	6,164	4,025	4,067	4,101	4,092	
2007	8,744	4,976	4,762	4,804		
2008	8,836	6,005	6,049			
2009	9,724	6,442				
2010	10,325					

Tail Factors: Impact of Selection

Accident Year	Reported Losses @ 12/31/10	Selected LDF's		Estimated Ultimate Losses	Earned Premium	Revised Loss Ratio	Unpaid Losses @ 12/31/10
		LDF	Age to Ult.				
2005	11,250	**1.000**	**1.000**	11,250	18,168	61.9%	742
2006	12,725	1.001	1.001	12,738	21,995	57.9%	1,202
2007	14,413	1.003	1.004	14,471	24,173	59.9%	2,013
2008	16,066	1.011	1.015	16,308	25,534	63.9%	3,609
2009	16,776	1.030	1.045	17,539	31,341	56.0%	6,367
2010	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

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

Accident Year	Reported Losses @ 12/31/10	Selected LDF's		Estimated Ultimate Losses	Earned Premium	Revised Loss Ratio	Unpaid Losses @ 12/31/10
		LDF	Age to Ult.				
2005	11,250	**1.020**	**1.020**	11,475	18,168	63.2%	967
2006	12,725	1.001	1.021	12,992	21,995	59.1%	1,456
2007	14,413	1.003	1.024	14,759	24,173	61.1%	2,301
2008	16,066	1.011	1.035	16,628	25,534	65.1%	3,929
2009	16,776	1.030	1.066	17,883	31,341	57.1%	6,711
2010	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

- 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

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

⋮

- Many, many others available

EXPECTED LOSS RATIO METHOD

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

	Percent of Premium
Commissions	20.0%
Taxes	5.0%
General Expenses	15.0%
Profit	-2.0%
Total	38.0%
Expected Loss Ratio (Available for Loss and Loss Adjustment Expense)	62.0%

EXPECTED LOSS RATIO METHOD

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.	2001	73.1%	73.8%	72.4%
3.	2002	66.6%	65.9%	67.3%
4.	2003	70.3%	68.9%	71.7%
5.	2004	69.0%	70.6%	67.4%
6.	2005	74.1%	75.0%	73.2%
7.	2006	80.2%	83.3%	77.1%
8.	2007	60.5%	59.1%	61.9%
9.	2008	62.6%	61.3%	63.9%
10.	2009	66.7%	68.0%	65.4%
11.	2010	67.0%	68.3%	65.7%
	3 year average			65.0%
	5 year average			66.8%

EXPECTED LOSS RATIO METHOD

- **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

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

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

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

Accident Year	Evaluation Interval in Months		
	12-24	24-36	36-48
2005	1.162	1.023	1.009
2006	1.158	1.028	1.011
2007	1.165	1.029	1.012
2008	1.165	1.034	
2009	1.159		
2010			
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

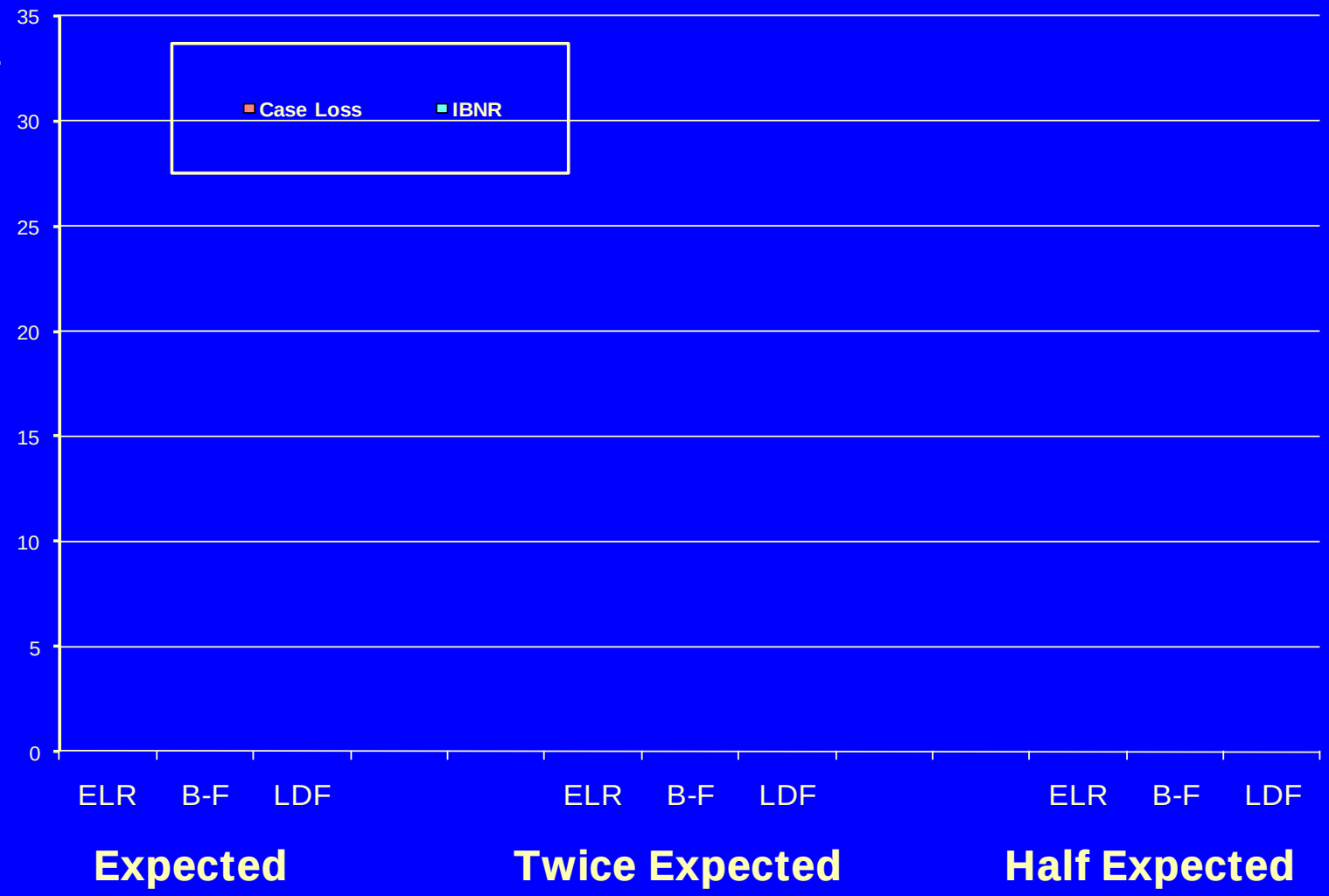
Accident Year	Evaluation Interval in Months					
	12-24	24-36	36-48	48-60	60-72	72 to Ultimate
2005	1.162	1.023	1.009	1.004	1.001	???
2006	1.158	1.028	1.011	1.003		
2007	1.165	1.029	1.012			
2008	1.165	1.034				
2009	1.159					
2010						
Average - All Years	1.162	1.029	1.011	1.004	1.001	
Average - Latest 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

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)
2005	18,168	62.0%	11,264.16	-	-	11,250	11,250
2006	21,995	62.0%	13,636.90	0.001	14	12,725	12,739
2007	24,173	62.0%	14,987.26	0.004	60	14,413	14,473
2008	25,534	62.0%	15,831.08	0.015	235	16,066	16,301
2009	31,341	62.0%	19,431.42	0.044	846	16,776	17,622
2010	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

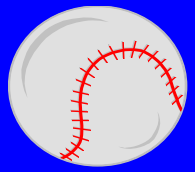
Comparison of Methods

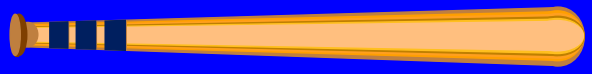


B-F Applied to Non Insurance

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





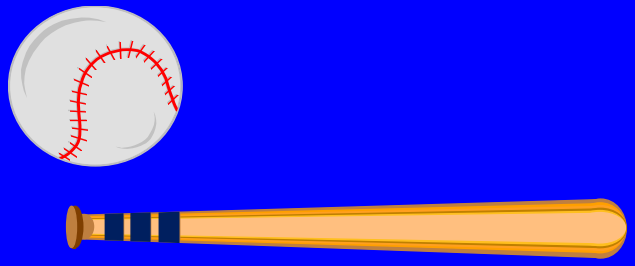
Information is needed to perform a Bornhuetter-Ferguson (B-F) projection:

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

B-F Applied to Non Insurance

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

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

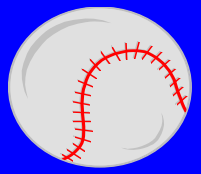
  (In Other Words, 75% of the season is left to be played)

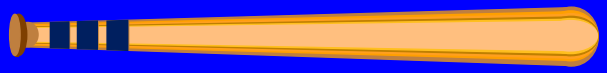
- Ultimate Value = (40 * .75) + 20 = 50

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





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

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

ADVANTAGES

- Compromise between loss development and expected loss ratio methods
- Avoids overreaction to unexpected incurred losses to date
- Suitable for new or volatile line of business
- Can be used with no internal loss history
- Easy to use

DISADVANTAGES

- Assumes that case development is unrelated to reported losses
- Relies on accuracy of expected loss ratio
- Less responsive to losses incurred to date
- Relies on accuracy of earned premium

LOSS ADJUSTMENT EXPENSES (LAE)

- 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)

DEFENSE AND COST CONTAINMENT EXPENSE (DCC)

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

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

DCC RESERVING METHODS

1. PAID DCC DEVELOPMENT

2. RATIO CUMULATIVE PAID DCC TO CUMULATIVE PAID LOSSES

DCC RESERVING METHODS

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

Accident	DEVELOPMENT STAGE IN MONTHS						
Year	12	24	36	48	60	72	84
2004	71	166	286	416	527	611	677
2005	83	189	313	458	584	672	
2006	93	213	361	523	657		
2007	103	226	394	581			
2008	108	245	437				
2009	128	280					
2010	132						

Accident	PAID DCC DEVELOPMENT FACTORS						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2004	2.338	1.723	1.455	1.267	1.159	1.108	
2005	2.277	1.656	1.463	1.275	1.151		
2006	2.290	1.695	1.449	1.256			
2007	2.194	1.743	1.475				
2008	2.269	1.784					
2009	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	

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	stimated Ultimate (4) (2) x (3)	Unpaid DCC (5) (4) - (2)
2004	677	1.108	750	73
2005	672	1.228	825	153
2006	657	1.418	931	274
2007	581	1.794	1,042	461
2008	437	2.621	1,145	708
2009	280	4.518	1,265	985
2010	132	10.170	1,342	1,210
Total	3,436		7,302	3,866

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

DCC RESERVING METHODS

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

Accident ---------- ---------- CUMULATIVE PAID DCC ---------- ----------

Year	12	24	36	48	60	72	84
2004	71	166	286	416	527	611	677
2005	83	189	313	458	584	672	
2006	93	213	361	523	657		
2007	103	226	394	581			
2008	108	245	437				
2009	128	280					
2010	132						

Accident ---------- ---------- CUMULATIVE PAID LOSS ---------- ----------

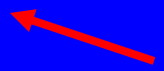
Year	12	24	36	48	60	72	84
2004	3,361	5,991	7,341	8,259	8,916	9,408	9,759
2005	3,780	6,671	8,156	9,205	9,990	10,508	
2006	4,212	7,541	9,351	10,639	11,536		
2007	4,901	8,864	10,987	12,458			
2008	5,708	10,268	12,699				
2009	6,093	11,172					
2010	6,962						

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Losses

EZ INSURANCE COMPANY AUTO LIABILITY

Accident Year	CUM PAID DCC TO CUM PAID LOSSES 12	24	36	48	60	72	84
2004	0.021	0.028	0.039	0.050	0.059	0.065	0.069
2005	0.022	0.028	0.038	0.050	0.058	0.064	
2006	0.022	0.028	0.039	0.049	0.057		
2007	0.021	0.025	0.036	0.047			
2008	0.019	0.024	0.034				
2009	0.021	0.025					
2010	0.019						



0.025 = 280 Paid DCC / 11,172 Paid Loss

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Losses

EZ INSURANCE COMPANY AUTO LIABILITY

Accident	PAID TO PAID DEVELOPMENT						
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-Ult
2004	1.312	1.406	1.293	1.173	1.099	1.068	
2005	1.290	1.355	1.297	1.175	1.094		
2006	1.279	1.367	1.273	1.159			
2007	1.213	1.406	1.301				
2008	1.261	1.442					
2009	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

DCC RESERVING METHODS

DCC Reserves Based on Cumulative Paid DCC to Cumulative Paid Loss Development

EZ INSURANCE COMPANY AUTO LIABILITY ($000s)

Accident Year (1)	Ratio to Date (2) slide 46	Devel. Factor (3) slide 47	Developed Paid/Paid Ratio (4) (2) x (3)	Ultimate Losses (5)	Ultimate DCC (6) (4) x (5)	Paid DCC to Date (7) slide 45	Indicated DCC Reserves (8) (6) - (7)
2004	0.069	1.068	0.074	10,292	762	677	85
2005	0.064	1.141	0.073	11,261	822	672	150
2006	0.057	1.251	0.071	12,751	905	657	248
2007	0.047	1.462	0.068	14,500	986	581	405
2008	0.034	1.887	0.065	16,326	1,061	437	624
2009	0.025	2.629	0.066	17,641	1,164	280	884
2010	0.019	3.252	0.062	20,716	1,284	132	1,152
Total				103,487	6,985	3,436	3,549

DCC RESERVING METHODS

Cumulative Paid DCC to Cumulative Paid Loss Method

ADVANTAGES

Recognizes relationship of DCC to losses.

Straightforward methodology, predictable.

Provides tool for monitoring relationship of DCC to losses.

DISADVANTAGES

Over or under estimation of losses reflected in DCC estimates.

More complex than paid DCC development.

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

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

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

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

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

Example of "50/50" Rule

EZ Insurance Co. - Auto Liability

($ 000s)

Calendar Year (1)	Paid AO (2)	Paid Losses (3)	Ratio (4) = (2) / (3)
2008	1,038	14,107	0.074
2009	1,244	15,906	0.078
2010	1,459	17,709	0.082
Total	3,741	47,722	0.078

AO RESERVING METHODS

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

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

Session II Review

- 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

- Schedule P
- Examples - You set the reserve!

Basic Track II

2011 CLRS

September 15-16, 2011

Las Vegas, Nevada