



# **Reserving for Homeowners: Pitfalls in the Short Tailed Line**

---

**September 13, 2005**

**Alan Lange**



# *Homeowners Insurance*

- Multi-peril policy
  - Property is bulk of the coverage (90/10)
    - Structure
    - Contents
    - Additional Living Expense
  - Liability
    - Low limits: typically \$300,000

# *Homeowner Tails*

- Typical tails
  - Small claims often settled <30 days
  - Bulk of large claims settle <90 days
    - Claims held open for replacement cost on contents

# *What stays open longer?*

- Liability
  - Even these tend to close quickly
- Total losses
  - Fire
  - Wind
- Catastrophes
- Disputes

## *Three Types of Pitfalls*

- Inappropriate development
  - Combined property and liability
  - Catastrophes
- Legal/Regulatory changes
  - Northridge EQ
- Assumptions incorrect
  - Demand surge

# *Inappropriate development*

- Mixed Property and Liability development
  - Assume a very steady company:  
no growth
  - Assume property/liability mix averages  
90/10



# *Mixed Property/Liability Development*

Mixed	12	24	36	48	60	Proj Ult	Reserve
2000	8600	9480	9810	9950	10000	10000	0
2001	8680	9524	9828	9960		10010	50
2002	8520	9436	9792			9978	186
2003	8640	9502				10019	517
2004	8560					9944	1384
							<b>2137</b>

Mixed	12	24	36	48	Tail
2000	1.1023	1.0348	1.0143	1.0050	
2001	1.0972	1.0319	1.0134		
2002	1.1075	1.0377			
2003	1.0998				

Select	1.1017	1.0348	1.0139	1.0050	
To Ult	1.1617	1.0544	1.0189	1.0050	1.0000



# Property Development

Property	12	24	36	48	60 Proj	Ult	Reserve
2000	8100	8730	8910	9000	9000	9000	0
2001	8280	8924	9108	9200		9200	0
2002	7920	8536	8712			8800	88
2003	8190	8827				9100	273
2004	8010					8900	890

**1251**

Property	12	24	36	48	Tail
2000	1.0778	1.0206	1.0101	1.0000	
2001	1.0778	1.0206	1.0101		
2002	1.0778	1.0206			
2003	1.0778				
Select	1.0778	1.0206	1.0101	1.0000	
To Ult	1.1111	1.0309	1.0101	1.0000	1.0000





# *Liability Development*

Liability	12	24	36	48	60 Proj Ult	Reserve
2000	500	750	900	950	1000	1000
2001	400	600	720	760		800
2002	600	900	1080			1200
2003	450	675				900
2004	550					1100
						<b>935</b>

Liability	12	24	36	48 Tail
2000	1.5000	1.2000	1.0556	1.0526
2001	1.5000	1.2000	1.0556	
2002	1.5000	1.2000		
2003	1.5000			

Select	1.5000	1.2000	1.0556	1.0526	
To Ult	2.0000	1.3333	1.1111	1.0526	1.0000



## *Mixed Property/Liability Development*

	<b>Mixed</b>	<b>Property</b>	<b>Liability</b>	<b>Combined</b>	<b>Difference</b>
2000	<b>0</b>	0	0	<b>0</b>	0
2001	<b>50</b>	0	40	<b>40</b>	10
2002	<b>186</b>	88	120	<b>208</b>	(22)
2003	<b>517</b>	273	225	<b>498</b>	19
2004	<b>1384</b>	890	550	<b>1440</b>	(56)
Total	<b>2137</b>	1251	935	<b>2186</b>	(49)

# *Inappropriate development*

- Catastrophe example
  - Same property development as before.
  - Add \$3000 cat in 2003



# Property Development

Property	12	24	36	48	60 Proj	Ult	Reserve
2000	8100	8730	8910	9000	9000	9000	0
2001	8280	8924	9108	9200		9200	0
2002	7920	8536	8712			8800	88
2003	8190	8827				9100	273
2004	8010					8900	890

**1251**

Property	12	24	36	48	Tail
2000	1.0778	1.0206	1.0101	1.0000	
2001	1.0778	1.0206	1.0101		
2002	1.0778	1.0206			
2003	1.0778				
Select	1.0778	1.0206	1.0101	1.0000	
To Ult	1.1111	1.0309	1.0101	1.0000	1.0000



# *Property+Catastrophe Development*

Add Cat	12	24	36	48	60 Proj	Ult	Reserve
2000	8100	8730	8910	9000	9000	9000	0
2001	8280	8924	9108	9200		9200	0
2002	7920	8536	8712			8800	88
2003	9190	11327				11677	350
2004	8010					9219	1209
							<b>1648</b>
	12	24	36	48	Tail		
2000	1.0778	1.0206	1.0101	1.0000			
2001	1.0778	1.0206	1.0101				
2002	1.0778	1.0206					
2003	1.2325						
Select	1.1165	1.0206	1.0101	1.0000			
To Ult	1.1510	1.0309	1.0101	1.0000	1.0000		



# *Catastrophe Development*

	Property Reserve	Catastrophe Reserve	<b>Combined Reserve</b>	<b>Mixed Reserve</b>	Difference
2000	0		<b>0</b>	<b>0</b>	0
2001	0		<b>0</b>	<b>0</b>	0
2002	88		<b>88</b>	<b>88</b>	0
2003	273	500	<b>773</b>	<b>350</b>	(423)
2004	890		<b>890</b>	<b>1209</b>	319
Total	1251	500	<b>1751</b>	<b>1648</b>	(103)

# *Legal/Regulatory changes*

- Northridge reopening
  - Statute of limitations extended
- Mierzwa decision/appeal
  - Valued policy law
  - Double dip with flood policy
- 2003 California Wild Fires
  - Insurance to Value

# *Legal/Regulatory changes*

- Underground Oil Tanks
  - Pollution excluded?
- 2004 Florida Hurricanes
  - Multiple events
  - Change to deductible structure



# *Assumptions incorrect*

- Will future look like the past?
  - Growth
  - Geographic changes
  - Seasonality
    - Quarterly development
  - Multi-year cycles
  - Climate change

# *Hurricane Katrina*

- Flood vs Wind
- Demand surge
- Extended ALE losses
- Slow reporting of claims
  - Mandatory evacuations