

# Umbrella & Excess Liability - Understanding & Quantifying Price Movement

## Survey of Common Umbrella Price Monitoring Methods

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imagination at work

# Survey of Common Umbrella Price Monitoring Methods

## Agenda

- Segmenting Your Umbrella Portfolio
- Consistency Through The Cycle
- Renewal Price Monitoring Methods
- New Business Price Monitoring
- Other Considerations



## Segmenting Umbrella Data Reinsurance Portfolio Management

- Pricing cycle varies greatly by type of business
- Recognize historical differences when segmenting portfolio for analysis of experience and trends
  - > Market
    - Smaller, Regional vs. Large, National companies
    - Admitted vs. Non-admitted, E&S companies
    - Small Business vs. Middle Market vs. National Accounts
  - > Attachment
    - Umbrella and Lead Excess vs. Excess (e.g. \$25 million)
  - > Supported vs. Unsupported



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- Umbrella Portfolio Analysis Inputs
  - Historical gross premium and loss experience
  - Historical and projected premium trends
  - Historical reinsurer experience and treaty shares (allows for grossing up to 100% basis)
  - Historical treaty terms (proportional vs. excess of loss)
  - Cedant profile data for assigning to portfolio experience group (e.g. Regional vs. National)
- Umbrella Portfolio Analysis Outputs
  - Historical and projected loss ratios
  - Historical and projected pricing index
  - Default loss development factors

## Umbrella Price Monitoring Following a Consistent Approach

Reinsurers today more consistently expect price monitoring data. Will this last through a full cycle?

- Request information for individual treaty pricing
- Maintain primary price index for portfolio management
- Guidelines for when price monitoring is required
  - > Program size: Annual subject premium  $\geq$  \$ Threshold
  - > Business type: Stricter requirements for potentially more volatile business
  - > Penetration: Target x% of umbrella portfolio
  - > Frequency: Monthly, quarterly, annually
  - > Practicality: Exceptions take into account cost and benefit



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- During the previous soft market, many companies did not maintain price monitoring data, and reinsurers were not consistent in requesting or requiring this information in submissions
- Pricing monitoring information has its shortcomings, and is only one metric for managing umbrella results
- However, a more consistent approach to price monitoring by primary and reinsurance companies may have tempered the excesses of the most recent soft market for Excess Casualty
- Anecdotal evidence suggests that companies with consistent price monitoring reduced capacity and production through the soft market compared to companies with no price monitoring and limited controls

## Renewal Price Monitoring Summary of Common Methods

What we typically see in today's market

- None – Soft market favorite. Less common today
- Matched Renewals or Matched Layers – AKA, Apples to Apples
- All Renewals – Maximize percentage included
- Variations on the above
  - > Premium change – Can be converted to rate change
  - > Beginners Rate Change – Expiring premium re-stated for exposure change
  - > Intermediate – Expiring re-stated for exposure, limit and attachment change
  - > Advanced – Adjust for other terms & conditions
  - > Sub-line Issues – Separate GL and Auto components



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- None – If you don't build it, they (the reinsurers) will come (anyway)
- Matched Renewals – Compare limits and attachment points at a minimum
- Variations
  - Average renewal premium change may be sufficient in some cases. This method can often be developed on an ad hoc basis from policy records when no price monitor is in place
  - Converting premium change to rate change
    - Use exposure trend appropriate to underlying business
    - Generally based on mix of Auto, GL Prem/Ops and Products
    - Evaluating the mix may require some judgment, as company data on underlying exposure may be missing or flawed
  - Coverage changes examples - Change in policy form, significant expansion or restriction in coverage (e.g., EPLI), change in underlying policy terms (e.g., deductibles), terrorism coverage, etc.
  - Sub-line issues
    - GL Prem/Ops, Products and Auto Liability may be calculated separately
    - Composite or predominant exposure may be used

## Renewal Price Monitoring Details of Rate Calculation

### Matched Policies

- > **Define criteria for matching**
- > **Re-state expiring premium for exposure change**

### Matched Layers

- > **Requires each million to be priced, assigned premium**
- > **Adds matched layers on unmatched policies to sample**
- > **Example: 5M x 1M renews as 4M x 2M. Compare 4M x 2M layer premiums or rates**

### All Renewal Policies

- > **Requires method for limit, attachment adjustments**
- > **Price Monitor factors may differ from specific umbrella rating plan factors or selected policy pricing factors**



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- Possible sources for limit and attachment adjustments
  - Rating plan factors – This may be a range. Use mid-point?
  - Indicated rating for policy – Some price monitors may require re-rating of expiring terms for Price Monitor input
  - ISO based ILF
  - Proprietary adjustment factors
  - Reinsurer questions
    - Can company share details of the calculations?
    - What is the source of the adjustment factors?
    - How often are these factors reviewed and revised?

# Renewal Price Monitoring

## Example of Rate Change

### Exposure, Limit, Attachment Change

Policy	Coverage	Premium	Exposure	Units	Policy Limit	Underlying Limit	Premium Re-stated For	
							Exposure Change	Lim / Att Change
Expiring	GL Prem/Ops	50,000	10,000,000	Sales	5,000,000	1,000,000	52,500	28,081
	GL Products	Included			5,000,000	1,000,000		
	AL	4,500	10	Light trucks	5,000,000	1,000,000	4,050	2,157
	Total	54,500			5,000,000	1,000,000	56,550	30,239
Renewal	GL Prem/Ops	55,000	10,500,000	Sales	4,000,000	2,000,000		
	GL Products	Included			4,000,000	2,000,000		
	AL	4,950	9	Light trucks	4,000,000	2,000,000		
	Total	59,950			4,000,000	2,000,000		

Premium Change	10.0%
Exposure Change	3.8%
Limit / Attachment Change	-46.5%
Rate Change	98.3%

#### Selected Increased Limits Factors

Limit	GL Prem/Ops	CAL
1,000,000	1.000	1.000
2,000,000	1.100	1.150
3,000,000	1.150	1.225
4,000,000	1.180	1.270
5,000,000	1.200	1.299
6,000,000	1.215	1.321



- Example of renewal that would not be included in a Matched Renewal Price Monitor
- Selected Increased Limits Factors are for illustration only. These are to base limit of \$1 million primary
- Premium Re-stated for Exposure Change =
  - Expiring Premium x
  - Renewal Exposure / Expiring Exposure
- Premium Re-stated for Limit / Attachment Change =
  - Premium Re-stated for Exposure Change x
  - Difference in Limits Factor (Renewal) / Difference in Limits Factor (Expiring)
  - Where Difference in Limits Factor = ILF (Limit + Attachment) – ILF (Attachment)

# Renewal Price Monitoring Advantages and Disadvantages

Method	Advantage	Disadvantage
None	<ul style="list-style-type: none"> <li>•Recognize that for some programs Price monitoring adds little value</li> </ul>	<ul style="list-style-type: none"> <li>•Lack of price monitoring = lack of management of program</li> </ul>
Change in Premium for All Renewals	<ul style="list-style-type: none"> <li>•Implementation relatively easy</li> <li>•Avoid tracking exposure by policy</li> <li>•Possible ad hoc solution</li> <li>•Better for Lead, regional, small company, homogenous business</li> <li>•Maximize percent of book measured</li> <li>•Often improved by filtering</li> </ul>	<ul style="list-style-type: none"> <li>•Linking expiring and renewal policies</li> <li>•No tracking exposure by policy</li> <li>•Can users game the system?</li> <li>•Worse for High excess, low retention ratio, E&amp;S, National Accounts, heterogeneous business</li> <li>•Filtering reduces percent measured</li> </ul>
Change in Premium for Matched Renewals	<ul style="list-style-type: none"> <li>•Implementation relatively easy</li> <li>•Avoid tracking exposure by policy</li> <li>•Possible ad hoc solution</li> <li>•Avoid est. impact of changes in policy terms</li> <li>•Reduces potential for gaming</li> <li>•May be improved by filtering</li> </ul>	<ul style="list-style-type: none"> <li>•Linking expiring and renewal policies and some policy detail</li> <li>•No tracking exposure by policy</li> <li>•Matching criteria reduces percent of book measured (bias?)</li> <li>•Filtering reduces percent measured</li> </ul>



# Renewal Price Monitoring Methods Advantages and Disadvantages

Method	Advantage	Disadvantage
Change in Rate for Matched Renewals	<ul style="list-style-type: none"> <li>•Implementation (added exposure component to calculation)</li> <li>•Reduces potential for gaming</li> <li>•May be improved by filtering</li> </ul>	<ul style="list-style-type: none"> <li>•Policy level exposure component complicates implementation</li> <li>•Linking expiring and renewal policies and some policy detail</li> <li>•Matching criteria reduces percent of book measured</li> <li>•Filtering reduces percent measured</li> <li>•GL / AL component considerations</li> </ul>
Change in Rate for All Renewals	<ul style="list-style-type: none"> <li>•Maximize percent of book measured</li> <li>•Minimize potential for gaming</li> <li>•Often improved by filtering</li> </ul>	<ul style="list-style-type: none"> <li>•Implementation – Need to build algorithms for limit change, attachment change</li> <li>•Policy level exposure component</li> <li>•Filtering reduces percent measured</li> <li>•GL / AL component considerations</li> </ul>

## New Business Price Monitoring New and Renewal Pricing Consistency

Most price monitoring tracks renewal business.  
What methods measure or enforce pricing consistency for new business?

- Rating plan flexibility
- Underwriter authority and referral guidelines
- Audits
  - > Internal audits
  - > External (reinsurance) audits
  - > Effectiveness of audits varies widely
- Metrics: Periodic comparative statistics for new and renewal business



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- Rating plan flexibility
  - Re-rating procedures: Manual premium, actual premium, discounts for supported vs. unsupported, Auto Liability rates
  - Excess Factors: Minimums, range factors, target factors
  - Allowable credits/debits at each rating step
- Underwriter authority and referral guidelines are examples of real-time oversight and control
- Internal audits provide periodic review and feedback from managers and peers
- Reinsurance audits ideally provide value to both the reinsurer and the reinsured
- Effectiveness of audits
  - Frequency of audits, number of files reviewed
  - Mix of subjective and quantitative information collected
  - Communication of findings
- Metrics for tracking trends and variances between new and renewal pricing

## New Business Price Monitoring Common Metrics

Metrics may be more useful for evaluating pricing consistency rather than adequacy

- Average Price Per Million (PPM) by Limit and Attachment Band
- Deviation from re-rated underlying GL/Auto premium
- Average layer factors – Average premium as percent of preceding layer premium
- Benchmark Rates – Develop database of first million umbrella rates (PPM) or factors under current market conditions



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- Average PPM
  - Segment data into more homogenous sub-sets (e.g., class group)
- Deviation from re-rated underlying
  - Requires minimum level of underlying premium and re-rating information
  - Selected premium for re-rating should be compared to stable base (manual premium)
  - Layer factors
    - 1<sup>st</sup> million umbrella premium as percent of re-rating underlying or manual premium
    - 1x1 or 4x1 compared to 1<sup>st</sup> million
    - 5x5 compared to first 5 million

## Other Considerations

### High Excess Business

- > Separate Umbrella and Lead Excess from higher attaching Excess business
- > Applies to experience and price monitoring

### Minimum premium accounts

- > Any special handling of MP in the price monitor?
- > Do MP impact the measured rate change?
- > Do MP impact recommended (prospective) rate change?

### Filters

- > Price monitors may include manual or automatic filters or criteria for excluding "outliers"
- > Does price monitor show impact of filters?



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- High Excess

- Many programs include mix of umbrella / lead excess and higher attaching excess policies
- Assumptions for pricing analysis are potentially very different (price changes, loss development, loss trend)
- Mix of High Excess business may have changed over time

- Filters

- Change in exposure, change in limit, change in attachment, calculated change in rate
- Track premium changes by month with and without filters to check for bias