



# Intelligent Use of Competitive Analysis

2011 Ratemaking and Product Management Seminar

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## Session agenda and objectives

- The competitive environment
- Importance and benefits of competitive analysis
- Different industry approaches to competitive analysis
- Addressing key challenges in performing competitive analysis
- Enhancing results through competitive analysis

# Competitive Market Analysis

**In a highly competitive and price-sensitive market, an effective approach to measuring competitive position is more important than ever**

### **Benefits/Results of Competitive Analysis**

- Identify rating plan/segmentation strengths and weaknesses
  - Leverage and communicate existing strengths
  - Address/correct rating plan weaknesses
  - Assess viability of target markets
- Reduce adverse selection
- Improve profitability and (potentially) unit growth
- Incorporate competitive market analysis results into price-setting processes
  - Price optimization
  - Predictive modeling for smaller/regional companies

The key question is **HOW** to measure competitive position

Insurers use various approaches to competitive market analysis — we will consider advantages and disadvantages of six specific techniques



These options are not mutually exclusive — different approaches can be used in combination



## Some companies rely primarily (and sometimes solely) on agent and CSR feedback to assess their competitive price position

### Data Source(s)

- Agent-advisory boards
- Agent surveys
- Anecdotal feedback

### Advantages

- Inexpensive
- Easy to implement
- Relies on those who are actually quoting business on a daily basis
- Quick response

### Disadvantages

- Not available if company/competitor is a direct or exclusive agency writer
- Feedback may be biased and/or based on a small number of recent examples
  - Can lack objectivity
- May not represent the full competitor spectrum
- Perception of a company's strengths and weaknesses may take time to change
- Feedback may vary even within the same agency (e.g., CSR vs. Principal)



## Other companies monitor their competitors' historical and current rate-level activity

### Data Source(s)

- Publicly available rate filings

### Advantages

- Minimal internal and external costs
- Data readily available
- Quick response
- Can focus on all competitors

### Disadvantages

- Does not provide competitive position *by segment*
- Requires a rate level “starting point”
- Larger carriers have multiple writing companies — difficult to evaluate

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### Historical Average Rate Level Change

Company	2008	2009	2010	2011 (To Date)
Company XYZ	+2.5%	0.0%	-2.0%	0.0%
Competitor A	+1.0%	+1.5%	+3.0%	+1.0%
Competitor B	-4.7%	-1.0%	0.0%	0.0%
Competitor C	0.0%	0.0%	+7.0%	-2.5%



## Another approach is to monitor competitive position based on internal sales and customer statistics

### Data Source(s)

- Shopping level (number of quotes)
- Close rates (in total and by segment)
- Retention rates

### Advantages

- Data may already be available (required)
- Once first reports are set up, easy to reproduce on a regular basis
- Easier to implement for direct/exclusive writers

### Disadvantages

- For many companies, costs to generate such statistics may be significant
- Need defined target performance benchmarks
- Suggestive, but imprecise — other factors may impact statistics
- Agent quote/close rates may not be available

### Close Rates by Credit Group

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Credit Group	2008	2009	2010	2011 (To-Date)
Group 1 (Best)	40%	38%	35%	30%
Group 2	35%	35%	35%	32%
Group 3	30%	32%	35%	35%
Group 4	20%	23%	25%	27%

In this hypothetical case, we see a disturbing trend in close rates that warrants further investigation





## Comparing calculated competitor premiums for a handful of target risk profiles offers certain advantages, but also has many limitations

### Data Source(s)

- Competitor manuals
- Agent/employee feedback
- Comparative rating tool or spreadsheet software

### Advantages

- This approach can work well when comparing less sophisticated carriers
- Provides an “absolute” measure of competitive position
- More fact-based
- Can be tailored to target markets

### Disadvantages

- Depending on size of the market basket, you may not uncover all adverse selection exposures (or relative rating plan advantages)
- May be difficult to draw market-wide conclusions from a relatively small number of profiles
- As competitors continue to implement greater sophistication, isolating specific and necessary pricing actions (beyond base rate changes) may be a challenge
- May not provide information on the use of new and emerging rating plan variables or new product offerings
- Selected tier/credit-score alignment can materially affect results
  - Employing a “best” to “best” approach may exclude key information — and incorrectly assumes that all credit algorithms are equal
- Depends on accuracy of the selected comparative rater



## Purchasing insurance quotes from a third party data provider has advantages, but is limited in scope

### Data Source(s)

- Insurance quotes purchased from a third party data provider
  - Premiums for each participating competitor
  - Key rating characteristics
  - Identification of insurer selected by shopper

### Advantages

- Provides “on-the-street” premiums at a policy level for competitive analysis
- More fact-based
- Provides additional direction for internal pricing analysis

### Disadvantages

- Focus on narrow market, as quotes are limited to independent agency writers
- Quotes are for shoppers only (no consideration for current book). May be difficult to draw market-wide conclusions from a relatively small number of profiles
- May not provide information on the use of new and emerging rating plan variables or new product offerings
- Takes time to gather quotes; may not be able to analyze data right away



Using only publicly available filings and manuals, a qualitative analysis of competitors' rating plan structures is a cost-effective approach to gathering substantial amounts of competitive data

### Homeowners: Tier

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Tier	Competitor				
	XYZ Company	Competitor A	Competitor B	Competitor C	Competitor D
Insurance Score Algorithm Used	Company-created proprietary scoring model	Industry Model A	Company-created proprietary scoring model	Industry Model B	Industry Model C
Number of Insurance Score Levels	6	8	24	8	4
Other Variables Used in Tier Determination	Owner age, number of reinstatements	Number and type of claim	None — Insurance Score only	Payment history, Coverage A limit, presence of mortgage	Number of times renewed, average claim size
Total Number of Tiers	28	120	92	190	1,100
Number of Unique Price Points (Tier)	14	100	70	28	1,100
Span of Tier Rating Factors	3.00	1.50	4.72	9.50	3.55
Writing in Multiple Companies?	Y	N	Y	Y	Y



## Qualitative analysis provides details about the individual rating variables used and how they interact

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### Personal Automobile: Household Characteristics

Company	Use of Variable	Degree of Segmentation	Description	Degree of Interaction with Other Variables	Observations/ Commentary
XYZ Company	No		<ul style="list-style-type: none"> <li>N/A</li> </ul>		N/A
Competitor A	Yes		<ul style="list-style-type: none"> <li>Number of drivers, number of vehicles, presence of youthful operator</li> </ul>		Vehicle rating factor; does not vary by coverage
Competitor B	Yes		<ul style="list-style-type: none"> <li>Number of drivers, number of vehicles, presence of youthful operator</li> <li>Age of youngest operator</li> </ul>		Varies by coverage
Competitor C	Yes		<ul style="list-style-type: none"> <li>Class factor calculated for each operator in household</li> <li>Average factor applies</li> </ul>		Average class factor and household structure
Competitor D	Yes		<ul style="list-style-type: none"> <li>Number of drivers, number of vehicles, presence of youthful operator</li> <li>Age of youngest operator</li> </ul>		Varies by coverage
Competitor E	Yes		<ul style="list-style-type: none"> <li>Vehicle/driver ratio (more vehicles than drivers, more drivers than vehicles), number of vehicles, number of drivers, number of youthful operators, age of youngest operator</li> </ul>		Included in tiering structure

N/A   
 Low   
 Medium   
 High   
 Very high



## Reviews of individual rating plans can be summarized into an overall price sophistication rating compared with selected competitors

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### Summary Comparison of Rating Sophistication

Variable Type/Category	Weight	Combined Degree of Segmentation/Interaction						
		Company A	Company B	Company C	Company D	Company F	Company G	Company H
Coverage	X%	Medium	Very high	Medium	Low	Low	Medium	High
Insurance score/tier	X%	Low	Low	High	High	High	Very high	Medium
Territory	X%	Very high	Low	Medium	Very high	Medium	Very high	Medium
Driver-related	X%	Medium	Medium	High	High	High	Very high	Medium
Vehicle-related	X%	Low	Medium	Medium	High	Medium	Medium	Medium
Household-related	X%	Medium	Medium	Medium	High	Medium	High	High
Miscellaneous	X%	High	High	N/A	High	N/A	Medium	Very high
<b>Overall</b>	<b>100%</b>	High	Medium	Medium	High	Medium	High	Medium

○ N/A    ◐ Low    ◑ Medium    ◒ High    ● Very high

- The results of this analysis can assist in isolating key pricing strengths and weaknesses
- Very high return on invested effort
- Provides sound foundation for price optimization and/or technical pricing enhancements



## However, this approach also has advantages and disadvantages

### Data Source(s)

- Competitor manuals

### Advantages

- Complete view of rating plan segmentation — highlights structural advantages and gaps
- Relatively cost-effective
- Allows a “countrywide” analysis, versus state-specific
- Provides additional direction for internal pricing analysis
- Provides foundation for optimization

### Disadvantages

- Ignores “effectiveness” of rating plans
  - No insight into actual rates generated either by company or competitors
- Competitor information may not be easily available (especially tier/credit score)
- Easy to misinterpret information in collection/compilation of rating plan filings
  - Manual exchange programs typically not up to date
  - For groups with multiple writing companies the full spectrum of tiers and rates may not be used in practice



## Many leading carriers are now conducting detailed quantitative assessments of “on-the-street” prices for their entire book of business

### A quantitative competitive market analysis...

- ...Compares company rates for the current book of business (either in-force or theoretical risks) across several companies
- ...Provides a complete picture of the effectiveness of the current pricing structure, down to each individual rating segment
- ...Can be an input into the development of a new company rating plan
- ...Provides a quantitative competitive foundation for price optimization



## Quantitative analysis, like the other approaches, has advantages and disadvantages

### Data Source(s)

- Competitor manuals and filings
- Comparative rating tool or spreadsheet software
- In-force book of business (bias sample)
- Business quoted but not written (optional; data may not be available or data may be incomplete)

### Advantages

- Provides “on-the-street” premiums at a policy level for competitive analysis
- Provides additional direction for internal pricing analysis
- Provides foundation for optimization

### Disadvantages

- Time intensive to generate competitor premiums if not already using a comparative rater
- Competitor information may not be easily available (especially tier/credit score)
- Easy to misinterpret information in collection/compilation of rating plan filings
  - Manual exchange programs typically not up to date
  - For groups with multiple writing companies, the full spectrum of tiers and rates may not be used in practice



# Addressing Challenges

## Although generally more effective, advanced competitive market analysis techniques pose certain challenges

### Key Challenges

- Company selection
- Credit/tier alignment
- Missing variables
- Choice of a comparative rater
- Particularly for homeowners, alignment of product type
- Validation of results
- Translation of detailed findings into actionable rating plan enhancements

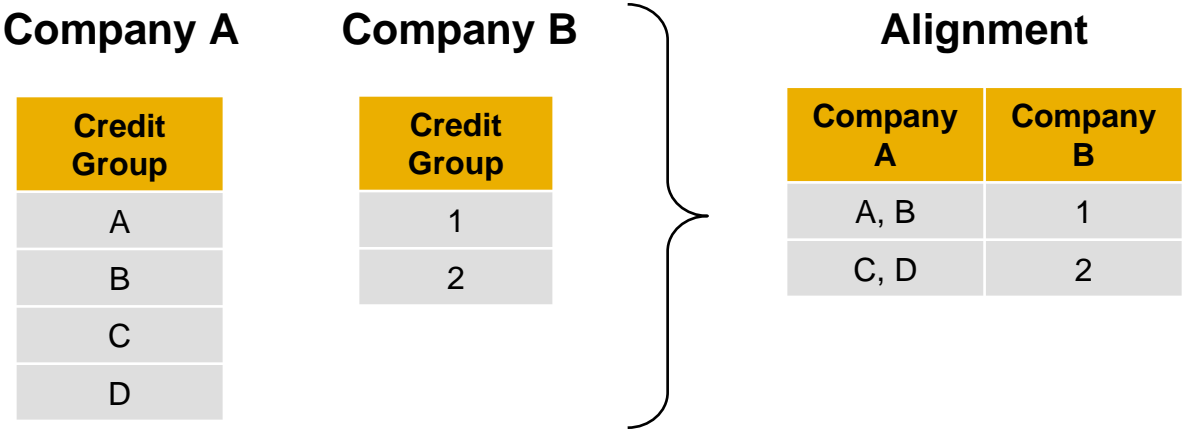
The next several pages briefly address each of these challenges

## Selecting which competitors to include is important...and trickier than one might think

- The ideal is a mix of direct competitors and industry leaders
- The target market segment should be considered
  - Competitors targeting the preferred market may be different than competitors targeting the non-standard market
- Once you choose a competitor group, selecting which particular company to rate can be challenging
  - For example, Allstate writes auto insurance in at least 14 companies across the country
- Relative premium volume may not be a good indicator, as one entity may be a new company (where all new business is being written)
- Agent feedback and rate filing reviews can help select the “right” company
- Some companies write only package policies (personal auto and homeowners on the same policy). This should be considered in the company selection (impact on coverage alignment and underwriting selection criteria)

# Creating an accurate alignment between competitor credit groups and tiers is critically important

- If a comparative rater provides automatic credit scoring alignment at all, it usually provides a simplified approach, such as this:



This approach has obvious disadvantages and could lead to incorrect conclusions

## Alternative approaches to aligning credit groups/tiers can increase accuracy (but can be costly and/or time consuming)

- Alignment based on company filed distributions by credit score range
  - Relies on publicly available data
  - More accurate than uniform distribution assumption
- Alignment based on programmed competitor credit scoring algorithms
  - Requires data at the individual credit attribute level
  - Relies on publicly available data
  - Processing current book of business through programmed algorithms results in an optimal credit score alignment
  - Assumptions may still be necessary, depending on the data source and competitor

## In some cases, a company may simply not collect accurate data on a rating variable that a competitor uses

- Depending on the importance of the variable, how missing values are populated can materially affect the results
- External data can sometimes be used to fill in missing values using sampling techniques
  - Census and other external data
  - Distributions obtained from competitor filings
- Care should be taken in how these variables are populated
  - Suppose a company does not collect data on a 55 & Retired Discount, but driver age is readily available
  - From census data and other publicly available data, one can obtain a population estimate of individuals who are retired
  - However, constraints should be placed on the sampling approach to avoid illogical results (e.g., a 25-year-old who is “retired”)

## There are a number of important due diligence considerations in selecting a comparative rater

- Are the rates for your company and the selected competitors already included in the tool (and if not, what are the additional costs to include?)
  - What are the alternatives if additional cost is prohibitive?
- Does the software support batch rating hundreds of thousands of policies (or more) in a timely fashion? How much computing power is necessary?
- Does the platform accurately perform:
  - Driver assignment for personal auto?
  - Territorial assignment?
  - Tier assignment?
- What process does the vendor have in place to ensure accurate results?
- What types of training and support services does the vendor provide?
- Does the vendor have a tool to convert your exposure data into a format that the batch rater can use?
- Does the vendor have appropriate marketplace knowledge to understand complex rate filings?

Although companies can decide to perform this work in-house, the effort has significant staffing and cost implications

Proper alignment of product/coverage is important in order to draw appropriate conclusions

State X — Homeowners

Coverage/Feature	Competitor A “Standard” HO-3 Policy	Competitor B “Basic” HO-3 Policy
Earthquake	Included	Excluded
Water Backup	Excluded	Included
Coverage A	Actual cash value, with possible limited replacement cost coverage endorsement	Replacement cost coverage
Coverage C	70% of Coverage A	85% of Coverage A
Identity Theft	Included	Excluded



## Once the analysis is complete, what process will be followed to ensure that the calculated competitor rates are accurate?

- Rater accuracy should be considered in selecting a third-party vendor
- Even the larger comparative rating vendors are often not accurate
  - Programming errors
  - Credit/tiering alignment
  - Oversimplification/misunderstanding of a competitor's rating approach
  - Goal may be to get “close enough”
- Certain actions can be taken to increase the accuracy of the analysis
  - Hand-rating of a random sampling of policies (which can be time consuming)
  - Verifying calculated average premiums with certain filed materials
  - Conversations with agents (“gut checks”)

# Competitive Analysis of “On-The-Street” Prices

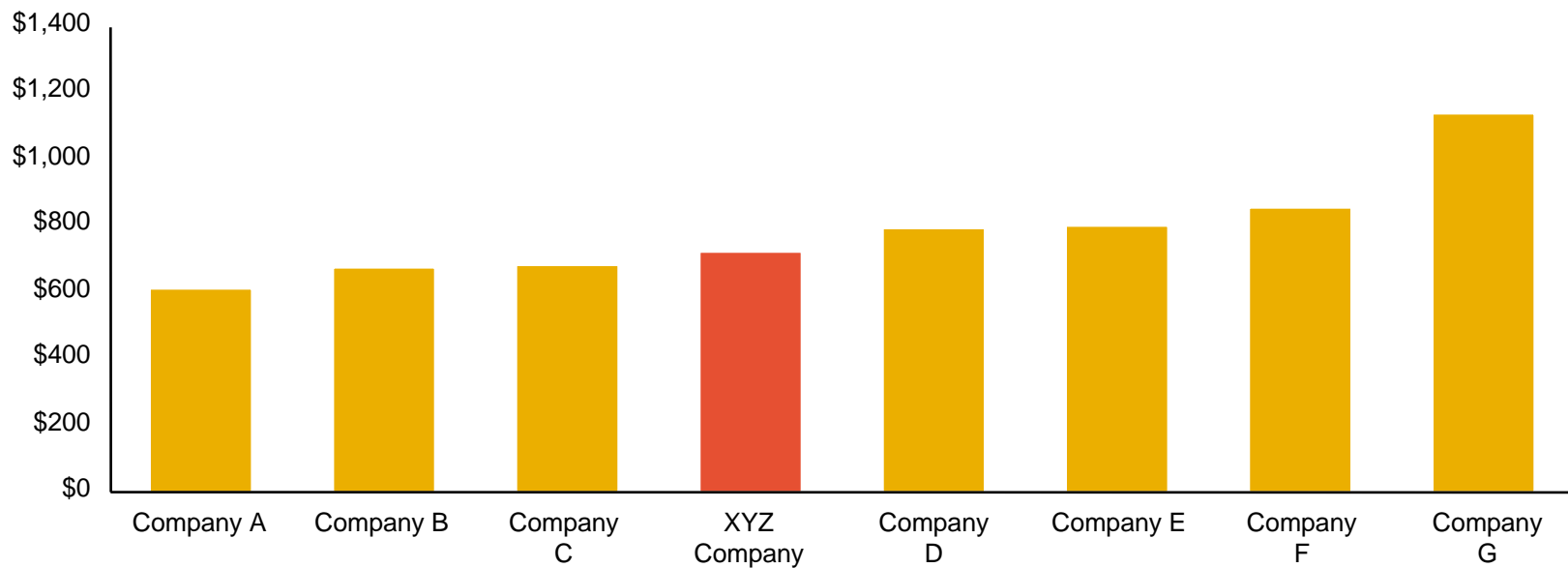


A quantitative analysis can compare new and renewal business pricing against competitors for the entire book...

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**Average Premium  
All Coverages Combined**

Average Premium



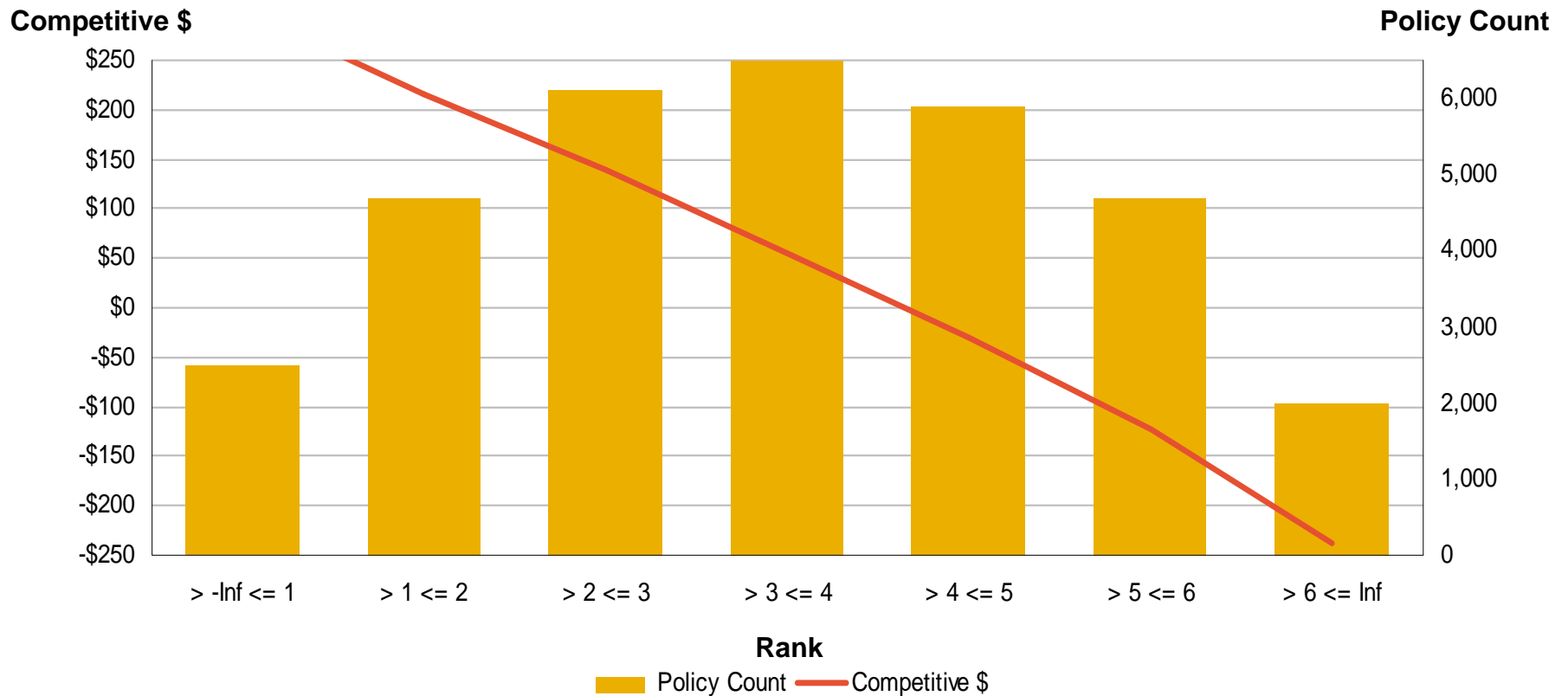
**Beware of potential inherent bias in using current policy mix of business**



A quantitative analysis can compare new and renewal business pricing against competitors for the entire book...

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### Average Competitive Advantage All Coverages Combined

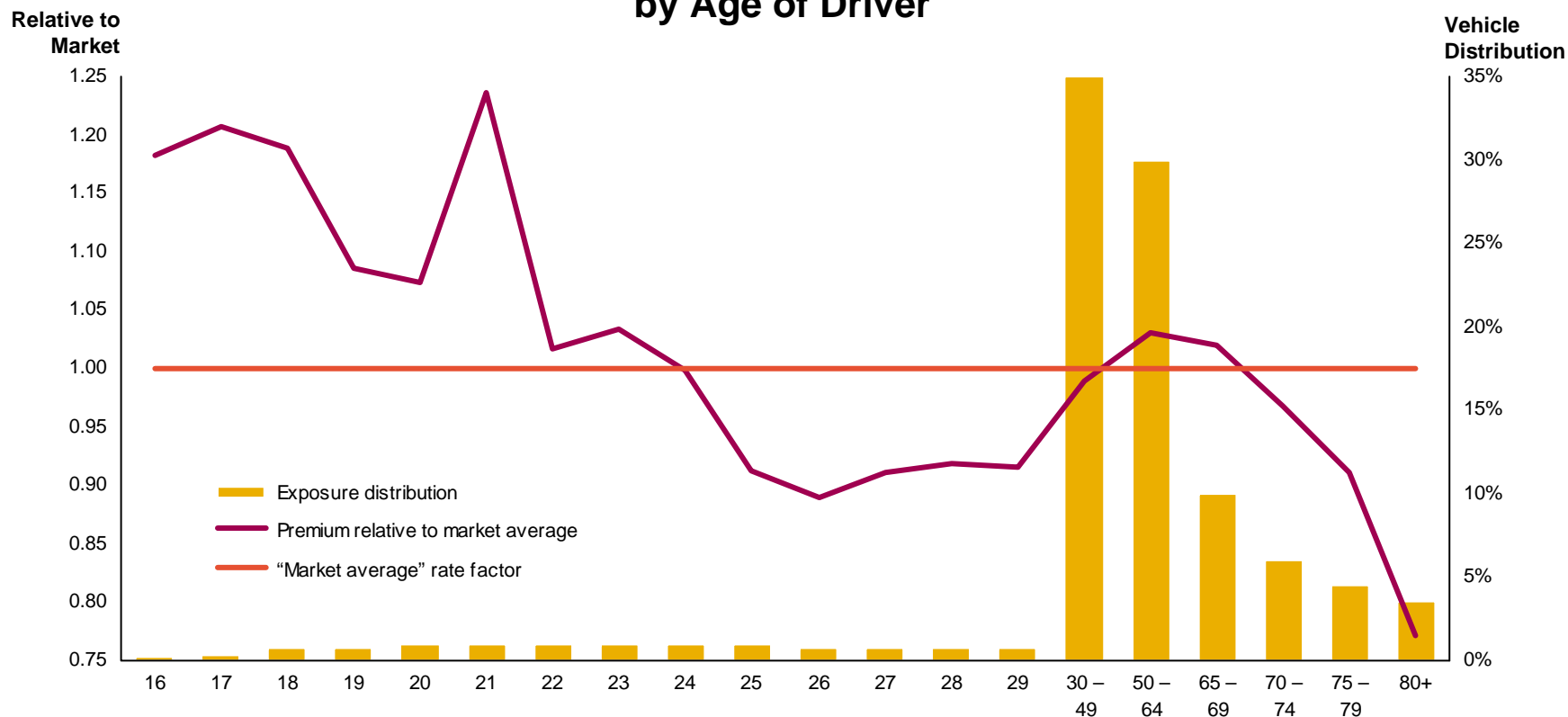




...and by rating factor/segment...

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### Rate Competitiveness by Age of Driver



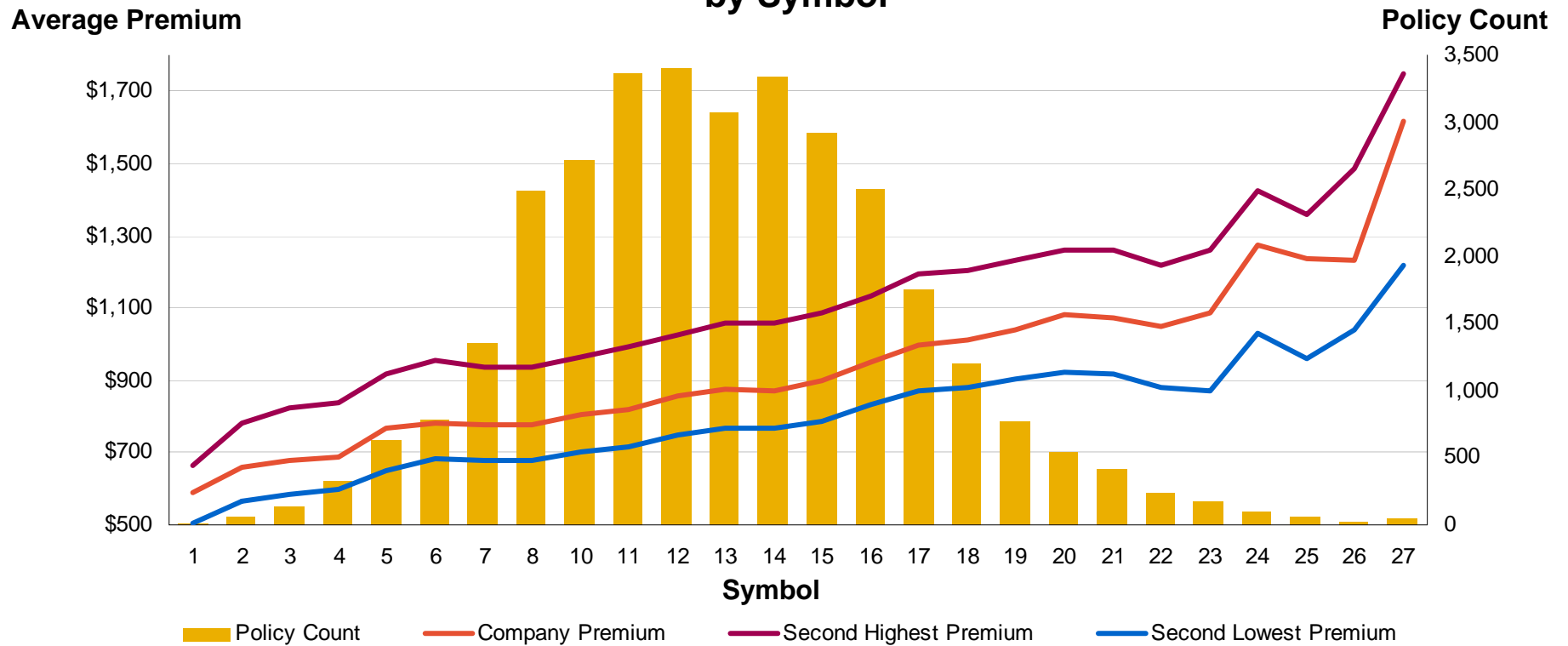
Use of a market average premium requires a distribution to be selected across competitors — simple average or weighted average



...and by rating factor/segment...

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### Average Premium with Hi/Lo Band by Symbol

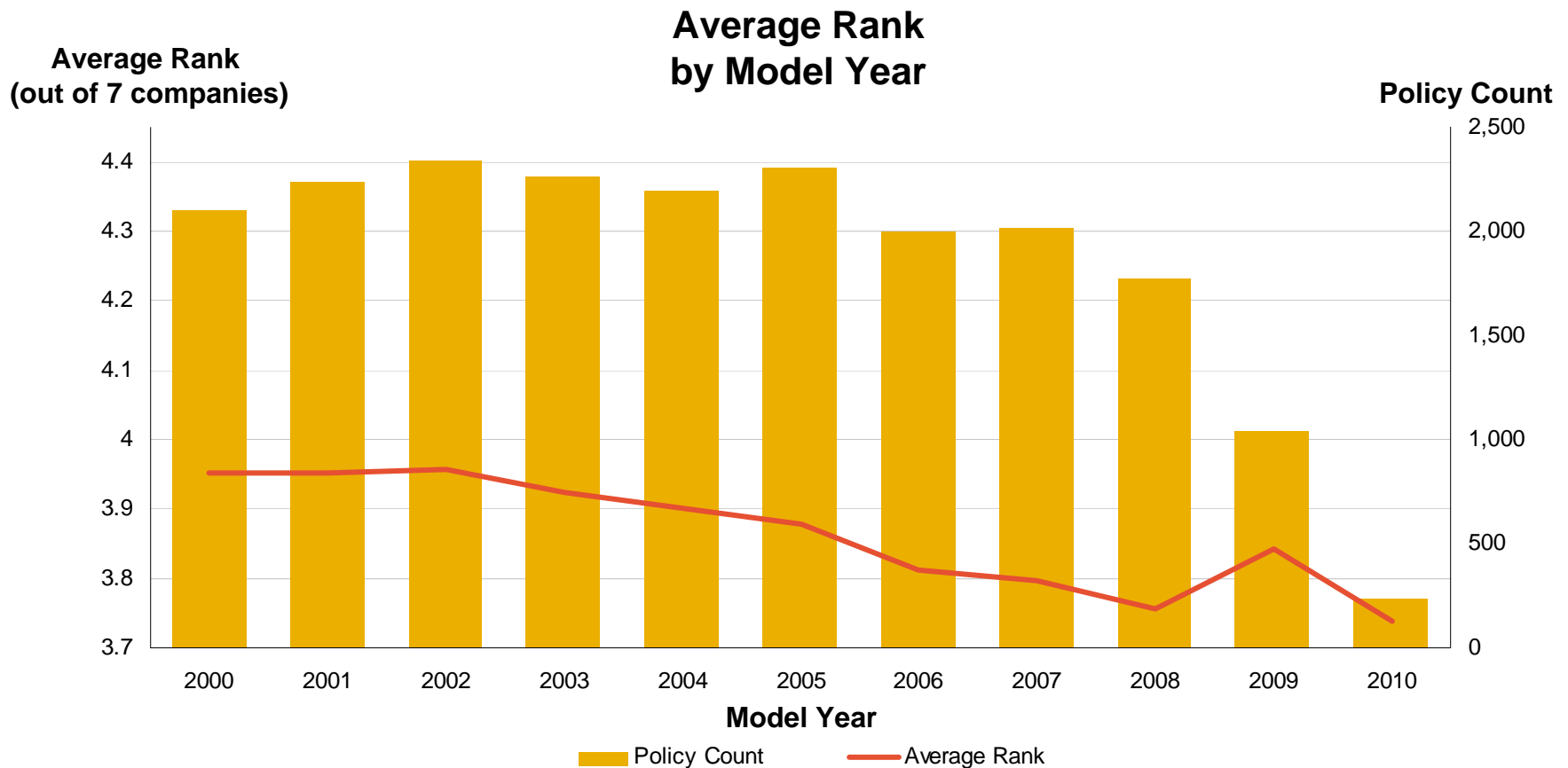


The target market position should be identified and then metrics can be developed to monitor competitive position relative to target



...and by rating factor/segment...

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...and compares the company's price to individual competitors for clusters of risks

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vs. Competitor A



- More vehicles than drivers, ages 40 – 65, in tiers 10+
- Drivers aged <30 or above 65, more vehicles than drivers

vs. Competitor B



- Drivers below age 20, one driver on the policy
- Drivers below 23, with three or more drivers on the policy

■ Percent of risks in State X where price is \$50 or more below competitor

■ Percent of risks in State X where price is \$50 or more above the competitor

Note: Text bullets show representative types of risks.

[towerswatson.com](http://towerswatson.com)





# The quantitative analysis can also identify opportunities for adjusting prices by market cluster...

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Potential to raise rates while keeping the risk of losing business acceptably low

Opportunity to reduce pricing and capture additional market share (depending on profitability of risks in this cluster)

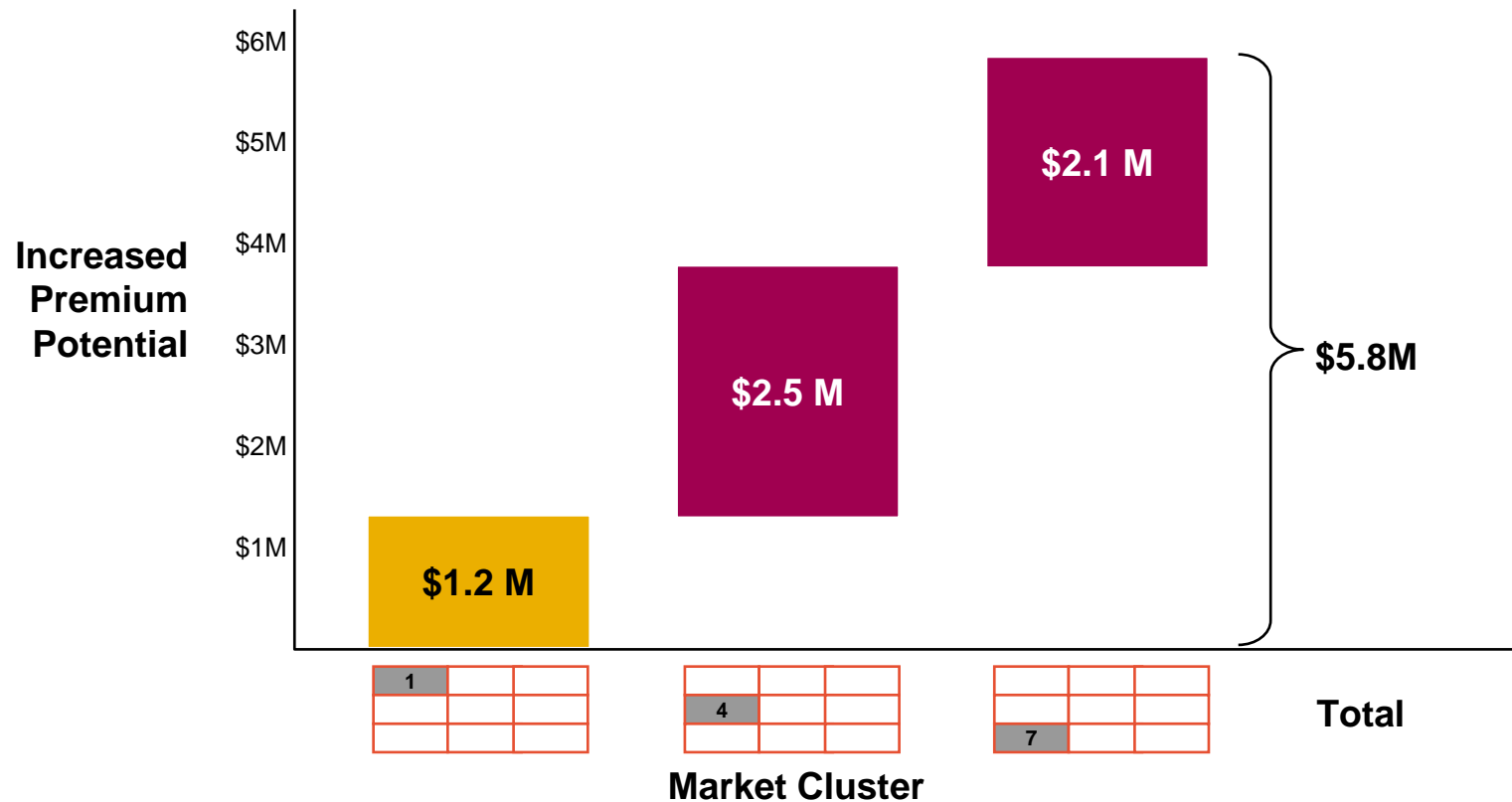




...which can lead to significant benefits

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Premium Potential by Market Cluster in State X



Such an analysis can also be used as input into a full price optimization study

# Implementation of CMA

## An effective competitive market analysis approach can be used to enhance the current pricing strategy in a variety of ways

- Adjusting the current rating plan
  - Knowing where you are in the spectrum of competitor prices for each key business segment can help inform potential pricing changes
  - Assuming that the price changes can be actuarially supported, this is a rudimentary form of price optimization
- Future rating plan changes
  - Knowledge of “emerging use” of certain new rating variables can allow a carrier to begin capturing the data on these variables for potential future use
  - To the extent data is already collected on a variable that is not currently being used, an effective competitive analysis can inform short-term rating plan changes as well
  - For smaller carriers/exposures, the results of a quantitative analysis could be used as the starting input dataset for a predictive modeling exercise, rather than the company’s own data (which may lack credibility)
- Marketing
  - Marrying up the results of the competitive analysis (which provides for the key segments where you are most competitive) with what the company’s target markets are can help focus marketing efforts in the short term before any rating plan deficiencies can be addressed
- Underwriting
  - Being aware of adverse selection exposure can help shape temporary underwriting adjustments
  - Appetites for new target markets can also be informed by the results of competitive analysis

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