

• Evaluation of New Model

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Review Goals of Initial Model

What was the intended benefit of the model?

- Pricing Models
- Lower loss ratio?
- Expanded appetite?
- New business quoting activity?
- Claims Models, typically more effective claim categorization/assignment
- Enhanced "No-Touch" capability?
- Lower severity?
- Lower allocated loss adjustment expense?

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Pricing Models

- Goal: Improve growth and profit margins by out performing competitors through better pricing of the exposure at the sub-account level.
 - Sub-account level can mean coverage, risk location, etc.
- Steps in achieving goal:
- Find the right portfolio price for a segment of the entire book.
 - Find "Credible cells" and determine appropriate rate level
- Traditional actuarial techniques can be used
- More sophisticated, multivariate techniques used to better allocate/spread the portfolio price through the accounts comprising the credible cell
- Benefit of Model Growth in top and bottom line
- "Cost" of model Disruption of existing book of business

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Reasons for a New Model

- Not achieving initial goals
- Benefits less than expected or desired
- Disruption greater than expected
- $\bullet \mbox{Modeling feedback loop} \mbox{better information from underwriters} \\$
- •Enhanced Data
- Better internal data quality
- Better volume of data to use
- New external data
- Conditions change
- External factors: economy, trends, competitors, regulatory or legal environment
- Experience can differ from expected

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2

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Reasons for a New Model: Not Achieving Initial Goals

- Are indications of results moving as intended?
- If looking for improvement in loss ratio, are frequencies improving?
- If looking for lower severity, are newly reporting claims showing favorable improvement?
- If looking for appetite expansion,
- what is happening with "hit ratios"?
- what is happening with class or territory expansion?
- Is disruption occurring as intended?
- What are actual retention levels vs. expected?
- Are we retaining desired classes of business?

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Reasons for a New Model: Enhanced Data

- · Improved data quality
- Longer history of "corrected" data
- Better initial data capture rather than after-the-fact data cleansing
- •Greater volume giving greater insights
- •New variables or 3rd party data source
- Previously used a "proxy"
- Better capture of more granular data
- Incorporating new external data
- New data source
- Loss of existing data source

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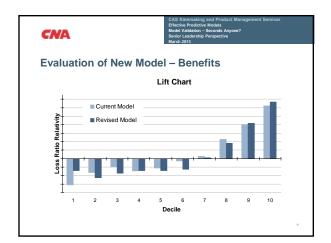
Reasons for a New Model: External Factors

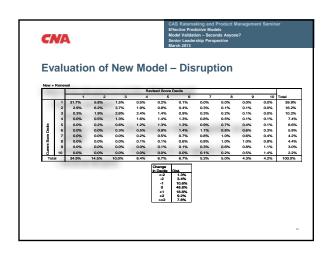
- Many pricing models today are static
- Dependent on time period in which data is captured
- Particularly if using historical loss information
- Incorporating economic conditions
- Adjusting data to reflect current economic conditions
- Incorporating economic variable(s) into the model
- Significant regulatory or legal environment change
- Adoption or elimination of tort reform changes (caps on non-economic damages)
- New legal precedents
- Competitors actions

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3

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Considerations for Deve	. •
Disruption must be carefully examine No reversals unless fully understo	ed
What are the pitfalls? Mixed and changing messages in Employee acceptance and/or fatig	•
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