2020 VIRTUAL ANNUAL MEETING & EXHIBIT

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Building Reliable LTC Models: Why Is It So Hard?

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Active participation in the Society of Actuaries is an important aspect of membership. While the positive contributions of professional societies and associations are well-recognized and encouraged, association activities are vulnerable to close antitrust scrutiny. By their very nature, associations bring together industry competitors and other market participants.

The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

There is no safe harbor under the antitrust law for professional association activities. Therefore, association meeting participants should refrain from discussing any activity that could potentially be construed as having an anti-competitive effect. Discussions relating to product or service pricing, market allocations, membership restrictions, product standardization or other conditions on trade could arguably be perceived as a restraint on trade and may expose the SOA and its members to antitrust enforcement procedures.

While participating in all SOA in person meetings, webinars, teleconferences or side discussions, you should avoid discussing competitively sensitive information with competitors and follow these guidelines:

- Do not discuss prices for services or products or anything else that might affect prices
- Do not discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- Do not speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- Do leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- Do alert SOA staff and/or legal counsel to any concerning discussions
- Do consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

Adherence to these guidelines involves not only avoidance of antitrust violations, but avoidance of behavior which might be so construed. These guidelines only provide an overview of prohibited activities. SOA legal counsel reviews meeting agenda and materials as deemed appropriate and any discussion that departs from the formal agenda should be scrutinized carefully. Antitrust compliance is everyone’s responsibility; however, please seek legal counsel if you have any questions or concerns.
Presentation Disclaimer

Presentations are intended for educational purposes only and do not replace independent professional judgment. Statements of fact and opinions expressed are those of the participants individually and, unless expressly stated to the contrary, are not the opinion or position of the Society of Actuaries, its cosponsors or its committees. The Society of Actuaries does not endorse or approve, and assumes no responsibility for, the content, accuracy or completeness of the information presented. Attendees should note that the sessions are audio-recorded and may be published in various media, including print, audio and video formats without further notice.
Interactive discussion topics

• Data considerations
• Product benefits
• Assumption setting
• Model validation
Data considerations

• Understand your administrative and claims processes
  • Spend time with people coding the data
  • Is the data really what you think it is?
• Data challenges
  • Are some fields inconsistent or unreliable (example: incurred date)
  • Do you have all of the fields you need? (benefit features; new challenges with first-principles)
• "but its not credible"
  • Is this code for ignoring what you see?
  • Although single data points fluctuate, can you see a pattern you should consider
• Usage of external data, tables and benchmarks
  • Identify outliers
  • Reasonability checks
• Absence of standards or a universal checklist
Product benefits

• Understanding the benefit features
  • Examples: benefit levels by care setting; APOC; survivorship riders
  • Variances by form

• Understanding the diverse benefits and experience differentiators
  • Example: indemnity vs reimbursement

• Benefit changes over time
  • Reduction offers, GPO take ups

• Unlimited nature of liabilities
  • Even limited benefits can be unlimited
Assumption setting

• Fit is critical:
  • Beware of A/Es = 1.00 over time, but not by calendar year / duration / age
  • Calibration factors often point to a need to revisit or refine assumptions
• Consider exposures on NFOs
• Consider change in behavior from past rate increases
• Lack of data at later durations and older ages
  • Extrapolate? Level-out? Grade to what?
• Separate theories from data
  • Extrapolations from the past vs theories on future changes
  • No one recovers
  • Anti-selection
  • Morbidity improvement
  • “the curves will go under each other”
• Inform stakeholders of theories and impact on results
Model validation

• Comparison of projected to historical experience
  • Do projections start off at the right place?
  • Are projected trends reasonable compared to historical experience?
  • Not just cash flows, but first-principles metrics?
• Disabled life reserve retrospective testing
• Back-casting: Application of model to prior in-force runs
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