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Meeting the Challenges of the Changing Actuarial Role

ACTUARIAL TRANSFORMATION® IN PROPERTY-CASUALTY INSURERS

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As companies seek to drive profitable growth, both short term and long term, increasing the demands on the actuarial department, actuaries must reevaluate the current actuarial operating model relating to people, process, data and technology to address current needs and be prepared for the future needs of the business.

The business and competitive environment for insurers is challenging, and for companies to succeed now and in the future—to find profitable growth while managing risk and capital—they need integrated, high-performing actuarial functions. Insurers continue to face challenges and should be prepared for the changing face of insurance, new products and exposures, increased data/big data, technology advances, ongoing regulatory change, scrutiny around documentation and controls, and greater competition.

The actuarial function within many property-casualty insurers has historically remained constant, but the rising pressures and challenges have led to greater demands on actuaries. The actuary's work is growing more complicated; results and additional insights are expected sooner to enable faster action. Actuaries are asked to be better aligned with the company's finance and risk organizations and to play a bigger role in business decisions with a stronger commitment to advanced analytics and big data. As a result, insurance leaders are being driven to refocus the actuarial team on higher analytics while also improving efficiency through increased automation, responsiveness and transparency. This shifting landscape has given rise to a changing actuarial role within the company. This can be achieved through an actuarial transformation, which is a top-down assessment, redesign and deployment of a new actuarial operating model to enable companies to succeed now and in the future.

CURRENT STATE

Actuaries are involved in many of the company's competencies, including reserving, pricing, product development, price

monitoring, risk management and information technology (IT). Within each of these areas, the actuarial team is integral to the technical process and performs such functions as data preparation, assumption setting and analyses, as well as socializing indications to leadership. However, business decisions are sometimes left in the hands of others. For example, management relies on actuarial reserve estimates to determine recorded reserves. In pricing, underwriters base their decisions partially on actuarial pricing analyses. In both cases, actuaries are constantly pushed to provide results more quickly, with more insights and diagnostics, to drive better-informed business decisions.

Many companies currently face deficiencies that hinder the actuary's ability to meet these growing demands:

- **Data:** many companies have multiple, isolated or antiquated data architectures and systems, sometimes with incomplete history, which cause actuaries to spend a disproportionate amount of time on data preparation and reconciliations.
- **Systems:** actuarial analyses are often spreadsheet-driven without proper governance, increasing the likelihood of manual errors and delayed completion time, as well as limiting the flexibility to perform scenario tests, address ad hoc requests and perform more sophisticated and insightful analyses, such as predictive modeling, pricing monitoring and competitor analyses.
- **Actuarial utilization:** actuaries spend a significant amount of time performing manual tasks, such as updating spreadsheets. Considerable time is also spent on operational activities and routine reporting to fulfill a compliance or regulatory requirement, limiting availability to perform advanced analytical analyses and strategic activities. For example, the financial close process often requires allocations and reconciliations that are cumbersome and require manual adjustments. Finally, there is sometimes a misalignment of actuarial outputs to business objectives and operational needs.
- **Resources:** actuarial departments face resource challenges, which intensify demands on the individual actuary's time, cause improper alignment of actuarial staff and increase key person risk.
- **Communication and interaction:** some actuaries have only limited interactions with other functions, and the interaction that occurs seldom leads to actionable tasks. For example, the limited formal interaction with claims, along with the context of and information provided in the discussions that are held, does not allow for reflection of claims activity in the actuarial analyses. Additionally, limited interaction with business unit management keeps actuaries from fully understanding management's need for valuable diagnostics in making informed

business decisions. This communication gap has caused frustration and a lack of transparency into the actuarial process.

- **Controls:** due to inadequate tools and the time needed for proper documentation, actuarial analyses are sometimes insufficiently documented or lack a formalized controls environment around methodology and assumptions to meet the scrutiny of auditors, regulators and the Internal Revenue Service.

CURRENT AND EMERGING THEMES

The transformation of the actuarial role within the company is leading to a process that is more responsive and efficient through increased use of automation, enables better use of data and incorporates a more thorough governance environment:

- **Responsiveness:** a responsive process may permit advanced analytics that can enhance business decisions. This includes timely and insightful management reporting, integration of pricing and reserving, more sensitivity analyses, stress testing and decision support, and greater leverage of actuarial/analytical talent across the enterprise.
- **Efficiency and automation:** a more efficient process may result in more timely results, better controls and a reduction in expenses. This includes more appropriate alignment of skills to the work, such as actuarial focus on technical activities and IT or shared services function focus on data management. This also includes utilizing technology to standardize and automate routine processes and reports.
- **Data and data marts:** more complete, accurate, organized and consistent data, including the use of data warehouse or data mart, utilizing both internal and external data, and data processes, may allow the actuarial group to perform more analytics, such as predictive analytics and scenario testing, in a timely fashion. Self-service business intelligence (BI) tools like data visualization enable more insight into the company's data, such as exposure changes and data trends.
- **Governance:** a better-governed process will enable the actuaries to meet the growing demands for a better controls environment. This includes a process and controls environment of the actuarial functions and systems, with well-documented procedures, assumptions and risks. For example, the reserve-setting process between the actuarial central estimate and management's best estimate can be better documented.

WHAT IS ACTUARIAL TRANSFORMATION, AND WHY DO IT?

Transformation is a top-down assessment, redesign and deployment of a new operating model to enable companies to succeed and maintain relevance now and in the future. Transformation projects have been under way for several years. Most life insur-



ers are currently involved in major programs to improve their financial reporting models, driven by the complexity of principle-based reserving methods and other factors. Property and casualty actuaries have played a limited role in finance transformations, mostly in the reserve-booking process. The notion of a holistic property and casualty actuarial transformation is a relatively recent development.

Actuarial transformation creates a target actuarial operating model that is integrated with the company's business strategy. It enables the actuary to be better aligned with the business and contribute directly to the company's goals and objectives.

Actuarial transformation takes a strategic, integrated view and focuses on:

- What actuarial services should be delivered, both now and in the future;
- How these services are linked to the company's business strategy and operational objectives;
- How these services are aligned with the finance and risk functions;
- How these services are performed, both short term and long term; and

- How actuarial talent can be optimized.

Actuarial transformation provides benefits to the actuarial function and the company as a whole:

- Better positioned in the market;
- Better positioned for the future; and
- Better insights—faster action.

It should lead to improved:

- Information to make key business decisions;
- Understanding of company risks;
- Transparency of actuarial process and drivers of results;
- Coordination across all functions;
- Governance and controls;
- Actuarial stakeholder satisfaction;
- Leveraging of actuarial talent;
- Employee retention and satisfaction; and
- Efficiency and expense structure.

The main anchor of an actuarial transformation is a target operating model (TOM) focusing on people, process, data and technology.

It should also lead to reduced:

- Cycle and process times for routine reports;
- Risk and potential inaccuracies;
- Time to identify opportunities;
- Time to identify adverse experience/trends to mitigate risky exposures; and
- Key person risk.

ACTUARIAL TARGET OPERATING MODEL

The main anchor of an actuarial transformation is a target operating model (TOM) focusing on people, process, data and technology.

People

The TOM should incorporate an organization model that aligns the actuarial function with the business while clearly defining roles and responsibilities, minimizing key person dependency, matching skills to roles, training users of systems and tools, and developing capabilities and measurement tools to effectively assess people. For example, an actuarial department can be restructured so that (1) pricing actuaries work closely with

underwriting and have some reporting responsibilities to the chief underwriter, and (2) reserving actuaries work closely with finance and have some reporting responsibilities to the CFO. To encourage the commitment to such teaming, companies should base performance measurement on both individual and business goals and success.

Process

The TOM should create a more efficient process that provides insights, meets business requirements and leverages technology, including current and anticipated future technology, while incorporating a governance and controls environment to satisfy regulatory, actuarial, audit and legislative compliance. For example, actuarial reports can be co-developed with the business and well documented and transparent as to methods and assumptions such that users appreciate both the implications and limitations of the information provided.

Data and technology

The TOM should incorporate technology to drive advanced analytics and increase automation across the enterprise, as well as enhance pricing tools while standardizing data organization, routine reports and

reducing data preparation and reconciliation. Additionally, increased use of business intelligence (BI) tools should enable more insight into data and trends. Examples include implementing reserve software that limits manual errors and increases the opportunity for additional analyses; implementing pricing models such as predictive modeling, competitive analyses and price monitoring; and incorporating an

R&D team to build and test tools that will provide a competitive advantage.

When determining the TOM, companies should consider all the components and their interactions. An actuarial transformation could focus on all actuarial functions or a subset of the functions within the company's actuarial capabilities. Although the ideal model will vary by company, it must encourage collaboration, deploying both human and technological resources to their highest and best advantage.

ACHIEVING THE ACTUARIAL TARGET OPERATING MODEL

To improve the operating model, a company must understand where it currently stands, develop a future vision or TOM, identify gaps between the current state and the vision, and create a road map of initiatives required to close the gaps.

When implementing the TOM, companies will face many challenges, including resistance to change, lack of buy-in, system challenges, current workloads, and communication and level of

messaging. Successful companies put a structured and sustained emphasis on change management. Keys to success include:

- **Dedicated leadership:** the willingness for change must come from senior executives, including the chief actuary, CFO and chief information officer, setting the tone for collaboration to achieve shared corporate goals. The leaders need to support resource needs over the entire life cycle, as well as cascade information and accountability.
- **Clearly defined roles and responsibilities:** the role of each actuary, including key performance indicators, should be clearly defined to enable individual and company success. Each individual must feel engaged and optimistic about the role.
- **Communication of change:** the reason and benefits of change must be clearly communicated so that people understand how they and their organization will be stronger.
- **Collaboration:** the various functions within the company must collaborate with each other and understand how success in one area will lead to success in others.
- **Technology transition plan:** changing the technology environment is not a quick process. A plan should be in place to smoothly transition procedures and tools as well as manage information, with the proper amount of time allocated for testing.
- **Designing solutions to provide both automation and flexibility:** while increased automation leads to more efficiency and controls, systems should be adaptable to meet the need for decision support and ad hoc requests, such as sensitivity testing of various assumptions. A clear automation strategy should be incorporated across the enterprise, such as in the data extract, transform and load process, standard analysis procedures and reporting processes. Innovation and R&D teams should consider how to improve upon the systems and models to meet emerging needs.
- **Performance management:** to effectively manage a cross-functional team, the company will need to establish a set of monitoring protocols and measurements. The measurements should align with specific corporate scorecard goals and demonstrate incremental progress in achieving those goals. Effective management outcomes will be driven by a blend of quantitative and qualitative measurements that provide transparency into progress and status of key delivery milestones.

To enable success, a dedicated team, such as a transformation office, should be created. This team will help drive communication to those involved or affected by the transformation, provide status updates, guide the process, tackle challenges and provide insights. The team should consist of people who are completely

focused on the transformation, understand what works and what doesn't and provide insight into leading practices in the industry.

CONCLUSION

Companies and actuaries face a challenging time preparing for the changing face of insurance, new products and exposures, increased data/big data, regulatory changes, greater competition and technology advancements. Leadership understands the value actuaries bring to the company and are looking for actuaries to be more involved in the business decision process, including increased use of advanced analytics, and the mentality of better insights quicker. To meet these challenges and demands of today and the future, actuaries need to review their capabilities within the core actuarial functions and the current operating model around people, process, data and technology.

No single approach works for the entire industry. Once actuarial objectives are clearly understood and articulated, companies should assess their current state to better understand the gaps separating them from leading practice and their ideal future state, and to create a road map for achieving the actuarial TOM. This requires understanding and buy-in from company leadership, as well as a structured and dedicated actuarial transformation office that understands the transformation process. The road will not be easy, as change is usually met with resistance, but the time has come to consider the advantages of a refreshed operating model and to make sure you and your company are prepared for the changes in the environment and the actuarial role. ■

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