MILLIMAN RESEARCH REPORT

A holistic approach to balance sheet management

U.S. life insurer best practices to support strategic decision making

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1. Executive summary

American life insurers are increasingly taking a holistic approach to balance-sheet management—they consider all company operations and strive to make marginal improvements in each area. To better understand this strategy and identify best practices and trends, we interviewed executives at a number of companies with a wide diversity by size, business complexity, and ownership structure in the United States and asked about:

- Strategy and metrics
- In-force management
- Investments
- Growth
- Risk and capital
- Systems and data

This paper summarizes their answers and our extensive industry knowledge and highlights patterns in key areas, including insurers' reactions to rising interest rates, their approach to monitoring artificial intelligence, and how they are responding to emerging risks, including cyber threats and climate change. We conclude with our examination of the companies' holistic approaches to decision making.

Strategy and metrics

Based on our research, reporting and accounting metrics vary by company ownership structure: Publicly traded insurers focus on generally acceptable accounting principles (GAAP), operating earnings, earnings-per-share (EPS) growth, return on equity (ROE), free capital flow, and stockholder dividend payouts, while privately held firms focus more on liquidity, distributable earnings, and other measures often influenced by their investors or parent. Mutual companies have recently increased their use of metrics and are particularly focused on expense ratios, profitability, and customer-centric key profitability indicators (KPIs).

Most firms use a five-year horizon for long-term planning, though practices differ. At most insurers, the actuarial function reports up through the chief financial officer.

In-force management

Rising interest rates have made in-force management a higher priority at many firms, although the approach to in-force management varies by company. Most insurers we interviewed do not have a dedicated in-force management team, but many instead have a cross-functional committee or partnership across teams that has the goal of discussing and evaluating potential actions.

Several companies noted an increase in litigation around cost of insurance (COI). Overall, companies are struggling to balance several competing objectives of in-force management and are challenged by a lack of data.

Investments

The recent rise in interest rates, after a prolonged low-rate environment, also has pushed many life insurers to embrace asset-liability matching and shift their asset allocations toward alternative classes. While publicly held firms have increased their holdings in floating-rate bonds, the heightened risk of credit events has prompted most insurers to pursue higher-quality assets. Mutual companies are particularly drawn to more conservative holdings.

Companies with limited liquidity concerns have shifted into less liquid but higher-yielding assets, including private holdings, agency mortgage-based securities (MBS), commercial mortgage-based securities (CMBS), and collateralized loan obligations (CLOs). Companies with a liquidity concern are seeking higher yields while monitoring commercial real estate. Mutual companies have made few allocation changes due to interest rate shifts.

Overall, as portfolios have become more complex, insurers have increasingly hired external investment managers.

Growth

The U.S. life and annuity market has seen significant inorganic growth over the past 15 years as private equity and asset management firms have entered the industry. The most recent growth has been in offshore reinsurance, with firms often opening subsidiaries in Bermuda.

Insurers without an offshore presence have avoided launching one if they could not achieve enough scale. In a few instances, an entity with no offshore presence created an onshore captive with the sole purpose of increasing capital efficiency. Newer firms, often funded by their parent, have pursued inorganic growth, but older firms have largely avoided this strategy.

Risk and capital

Since the 2008 financial crisis, most U.S. life insurers have adopted a centralized risk-management function and a three-lines-of-defense model. This is consistent across the industry, irrespective of size, business complexity, and ownership structure. Companywide risk awareness permeates most of the firms we interviewed and in best-practice-companies underlies decisions at all levels. U.S. life insurers view their “risk culture” as a major strength of their risk management programs.

Climate risk has become the most talked-about emerging risk. Even for companies that believe their asset-liability profiles do not expose them directly to climate change, there are uncertainties over potential government or regulatory actions related to such. Given the uncertainties, insurers continue to struggle with what this means for their business. Life insurers are also increasingly focused on cyber security. While most companies have some insurance in place to cover against financial loss, they remain highly exposed to the reputational risk element of a cyber incident.

There is widespread use of risk dashboards, which can be an invaluable tool in communicating matters relating to risk to senior management and the board in a concise way that facilitates action.

There are mixed views on economic capital (EC)—“the quantification of enterprise risk management.” For some companies, the calculation is viewed as being of great value and is used to support strategic decisions, while for others the assessment is less positive.

A number of the companies we interviewed also highlighted the increasing importance of stress and scenario testing as a means of communicating information on the company’s risk position, especially in terms of enabling a better industrywide understanding of tail risk. We do see some differences in the degree of rigor between the “acquisition-tilting” firms and the rest of the market: The former companies have had to build out highly sophisticated investment risk stress testing processes, more so than the rest of the industry.

Systems and data

All of the companies we interviewed said in recent years they had performed, or were in the process of performing, an actuarial and/or financial transformation of some sort. For some this has been confined to systems modernization, but for others it is broader in scope. Many recent transformations have been motivated by the requirements of long-term targeted improvements (LDTI). As insurers seek to modernize, in practice they have seen mixed results.

Unsurprisingly, all the companies we interviewed indicated they were actively looking at how to use artificial intelligence (AI). Some have leveraged AI to support marketing and sales; others have used it for claims severity modeling, customer segmentation, investment management, and analysis of policyholder experience. Still, none of the companies felt they had fully tapped into AI’s potential, and many indicated they were challenged by a lack of quality data.

Despite earlier buzz about predictive analytics, our interviews also revealed limited success with this technique. Some insurers use it to support underwriting and to set actuarial assumptions, but widespread adoption has not materialized, again perhaps due to the need for quality data.

Holistic assessment

Based on our assessment of each individual area, we developed three distinct theoretical decision-making profiles of insurers: acquisition-tilting, service-tilting and innovation-tilting. Each such profile has ties with companies’ age, ownership structure, and size.

We have analyzed the profiles across three categories: business development, structure and planning, and adaptability and transformation, over 12 attributes. We have presented a comparison and identified a number of questions each company may consider in its strategic decision-making process.

Holistic: "relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts" – Merriam-Webster Dictionary

2. Introduction

In 2003, Britain's main governing body for cycling appointed David Brailsford as the performance director for the national team. At the time, British cycling was not in a good way: The national team hadn't won an Olympic gold medal since 1908, and no British cyclist had ever won the Tour de France.

That was all about to change. Brailsford focused on examining every single part of the business of running a cycling organization, from the comfort and stability of a bike's seats to the pillows the cyclists were sleeping on. His philosophy was one of a holistic approach to management, looking at how each area of the operation interacted and seeking to achieve marginal gains in each. The concept was that every single aspect of cycling counts, and that making small incremental improvements in each area and bringing those together in the broader cycling ecosystem would yield huge gains overall.

Brailsford's approach turned the British cycling team from no-hopers to a world-beating force. At the 2004 Olympics, the British cycling team won two gold medals. At the 2008 and 2012 Games, they topped the cycling medals table, winning eight golds on each occasion. Moreover, in 2010 Brailsford was appointed manager of the new British-based professional team, Team Sky, and in this role oversaw British cyclists winning the Tour de France six times in the seven-year period between 2012 and 2018.

In the highly competitive environment of the U.S. life insurance industry, Brailsford's philosophy of seeking marginal improvements to gain an edge will certainly resonate. But how successfully are companies doing this? Are they bringing the improvements at the margin together to manage their balance sheets in a way that truly captures the interactions and relationships across their organization?

With this in mind, over the past year, we have undertaken a major research initiative to examine the concept of a holistic approach being used to manage life insurance companies in the United States.

Key topics of focus for our research have included:

- Approaches to life company balance sheet management that take a broad and multi-lens perspective of the business
- Processes and methods to facilitate a consistency of approach in making strategic decisions across the organization
- How efficiently companies are using their most valuable resources, including people and capital

Our work has involved a mix of both formal and informal research. The formal aspect of our work has been to interview senior management at a number of our client companies, with a structured set of questions on specific aspects of the business. These interviews involved discussions with the most senior members of the executive team, including chief financial officer (CFO), chief investment officer (CIO), chief risk officer (CRO), and chief actuary. The informal aspect of our work has involved tapping into our existing body of knowledge of industry practices, gleaned from our widespread project work as well as other formal surveys Milliman has conducted with our clients in recent years.

All in all, we believe our research establishes the current state of the industry so far as the holistic approach to life insurance balance sheet management is concerned, and this paper documents the results. In addition, the paper identifies what we view as current best practices in strategic balance sheet management and indicates potential industry developments and improvements that we can expect to see in the future.

The structure of the paper is as follows. First, we look at the various structural and functional aspects of the business, how each of these areas interacts with other parts of the organization, and how each is achieving marginal gains. We then bring this together in conclusion to offer perspectives on how a holistic best-practice approach works, based on our observations and discussions around the market.

More specifically, the paper is structured as follows:

- **Strategy and metrics**: In this section we consider company organizational structure, and finance and accounting aspects including key financial lenses through which the business is managed.
- **In-force management**: This section examines liability-side aspects including products, in-force management, liability nonguaranteed elements, and reserving.
- **Investments**: On the assets side, how are strategic decisions made, what are emerging asset types that hold the most interest, and how have investment decisions changed as interest rates have moved over the past couple of years?
- **Inorganic growth / structuring**: In this section, topics include how decisions are made around deployment of capital, including potential offshore opportunities.
- **Risk and capital**: In this section, we look at aspects such as how risk management is structured, how it impacts strategic decision-making, what risk information is of most interest to senior management, and the use of EC.
- **Systems and data**: Systems and usage of data are a key aspect of successfully running the operations of an insurance company. What are life insurers doing to gain an edge in this area?
- **Bringing it all together**: Holistic management

We conclude the paper by bringing all of the above together, recognizing the interrelationships within the business and using that information to truly manage the business from a holistic perspective.

3. Companies interviewed

To collect and interpret data on companies' decision-making processes in the various target areas and holistically, we reached out to a number of life insurers with substantial U.S. operations. Our desire was to minimize bias across multiple dimensions, so we sought to interview companies across the spectrum of company age, ownership structure, history, size, business acquisition type, group structure, and other characteristics.

Most companies provided access to four to six executives who shared information over four interview hours spanning several calls. One company volunteered more than 10 leaders who volunteered substantially more time. At the other end of the spectrum, three executives represented one company over two calls. Company executives included CFOs, CIOs, CROs, chief actuaries, and other senior leaders.

The research participants represented public, private, and mutual companies (current and former); insurers and reinsurers; companies recently formed and those formed in the 19th century; standalone insurers and those with parent companies including foreign parents.

Given the number of interviewed companies and substantial number of best practices, unique approaches, and trade secrets shared, the interviewed executives and Milliman agreed not to publicize the participating companies' names. In exchange, the interviewees shared with us a significant amount of information that helped us develop the analysis that follows this section.

We are thankful to all the companies and their leaders who participated in this research.

4. Strategy and metrics

Financial and accounting metrics are ultimately how companies determine the success of their decision making and the effectiveness of implementing their strategies. We asked the participating companies a number of questions designed to allow us to understand their approach to using financial and accounting metrics and how metrics affect their strategies and decision-making processes. We examine how different companies use various financial and accounting metrics, both for internal and external reporting, and how they respond to regulatory and accounting changes. Further, we explore how the companies approach their long-term strategic planning, product development, and pricing. Moreover, we examine how their organizational structure and their use of financial metrics balance the needs of their stakeholders. In addition, we examine the use of EC as a measure of risk and performance, and the factors that influence its use and success.

4.1 FINANCIAL METRICS

The companies interviewed use a variety of financial metrics, both for internal and external reporting. Some common metrics mentioned by multiple companies include GAAP reporting, earnings, return on equity (ROE), statutory (STAT), embedded value (EV), EC, asset growth, and capital generation. For example, one company uses GAAP reporting, EC, STAT, and tax basis metrics, with a focus on use and generation of capital and its capital ratios. These metrics seem common across many companies. However, the specific metrics used, and their relative importance, vary among the companies. Some companies mentioned the use of additional metrics to complement the primary metrics used, such as liquidity measures, customer-centric KPIs, and distributable earnings (including the present value of distributable earnings using the stochastic scenarios).

Several companies mentioned the use of both internal and external metrics. For example, one company reports operating earnings, EPS growth, ROE, free capital flow, and dividend payouts to the outside world, while internally focusing on customer-driven revenue growth, earnings and margin, ROE, and free capital generation.

The responses also show that the companies have different approaches to the use of metrics. Companies recognized that the use of metrics can vary by the product line. For example, companies offering asset-oriented products examine metrics around asset growth.

Some companies have a long-term focus and use metrics such as value of new business and expenses to track their progress. The definition of “long-term” varied by company, with some looking out five years and others looking out 10 years. Other companies expressed that their focus was on annual change in asset growth, net income, premium growth, and net flows to understand their relationship with customers. A few companies indicated a focus on both annual changes as well as long-term changes.

It is interesting to note how the companies’ views on EV varied. The companies that indicated management needed to support a variety of metrics to support their parent and debt investors were less driven by EV. However, companies with less demand for focusing on many metrics seemed to be more focused on EV for their decision making.

Most companies focused on a variety of metrics to make their business decisions. They attempt to triangulate across the different metrics they monitor. Some focus on a wide variety and some have narrowed the key metrics to a few. Interestingly, one of the companies interviewed, while aware of other metrics, makes all of its management decisions based on one key metric, which they believe simplifies the decision-making process. On the opposite end of the spectrum, one company determines metrics under many different accounting regimes at the request of its owners and tries to triangulate across the metrics for decision making.

We observed differences in the use of metrics depending on the corporate structure. Public companies tend to focus on operating earnings, EPS growth, ROE, free capital flow, and dividend payout ratios. Privately held companies focused on a variety of metrics, such as liquidity measures, distributable earnings, EV, internal rate of return (IRR), multiple on invested capital, GAAP ROE, and capital ratios, noting that some of these metrics are influenced by the parent company and some by the company’s debt investors. Mutual companies have indicated they are using more metrics today than previously, but they also seem to be focused on expense ratios, loss ratios/profitability, and customer-centric KPIs.

4.2 ACCOUNTING METRICS

The responses show that the companies use a variety of accounting bases, including GAAP, STAT, tax, and Bermuda, and do so to manage to their long-term goals. Some companies focus more on one accounting basis, while others use a more balanced approach. For example, one company has shifted from being more GAAP-focused to being more balanced between GAAP and STAT, while another company focuses primarily on STAT. Additionally, some companies use a mixture of accounting bases, such as GAAP, STAT, EV, and EC, to reflect diversified lenses and avoid metric shopping.

The specific accounting bases used and their relative importance vary among the companies. Approximately half the companies focus more on STAT and the other half focus on GAAP. There is a high correlation between their ownership structure and business model and their main metric. For example:

- Publicly held companies focus on GAAP. While privately held and mutual companies pay attention to GAAP, it is usually not their main decision metric.
- Companies focused on inorganic acquisitions focus more on STAT but are also keen to understand how the acquisitions affect GAAP financials.
- Companies with offshore capabilities are also interested in those accounting requirements (e.g., Bermuda), which is seen as the STAT requirement.

In addition to the main accounting metrics, some companies use metrics such as discounted cash flows, expense budget, hedge target, taxable income, STAT surplus, and dividend capacity, while others use adjusted embedded value (AEV) as their primary metric for compensation and business decisions. Further, one company indicated how they utilize their own risk and solvency assessment (ORSA) filing for decision-making as well.

4.3 REVISIONS TO REGULATORY AND ACCOUNTING STANDARDS

Companies have different reactions, approaches, and perspectives on regulatory and accounting changes, depending on their business models, product mix, ownership structure, and reporting regimes. The impact of the changes varies among companies and depends on various factors and circumstances. Some companies view the changes as compliance exercises that do not alter their risk profile or decision making, while others see them as opportunities or challenges that require adjustments or innovations. Some companies have a long-term focus and a balanced approach to their internal and external metrics, and as such are less affected by regulatory and accounting changes, recognizing that their risk profile hasn’t changed. However, other companies that have a short-term focus and are driven by a dominant reporting regime are reactive to regulatory and accounting changes. Further, some companies feel they have not been significantly affected by the changes, while other companies feel they have experienced major impacts on their capital, reserves, earnings, hedging, or valuation from accounting and regulatory changes. Most companies that actively hedge market risk said that changes in accounting (e.g., with the introduction of LDTI) will not materially impact their hedging strategy but may introduce volatility in their accounting metrics.

4.4 LONG-TERM STRATEGIC PLANS, METRICS, AND BALANCING STAKEHOLDER NEEDS

Companies have different approaches to their long-term strategic planning. Some companies have a formal long-term strategic plan in place, while others have a more informal or evolving approach. The length of time the plan has been in place also varies among the companies; a five-year range is common, but some companies indicated a shorter time frame (e.g., three years) and others a longer range (e.g., 10 years).

Some companies have associated metrics to achieve their long-term objectives, while others do not. While less clear from the responses, it appeared that companies tend to simplify the metrics used for longer-term planning. For example, companies talked about asset growth or diversification of risk.

While some companies indicated that the long-term planning happens at the business unit level and then builds up, others indicated it is driven at the corporate level.

Most companies indicated that balancing the long-term needs of all stakeholders is a continually evolving process. However, companies also have different approaches to balancing the needs of their stakeholders, which include employees, customers, and investors. For example, one company focuses on meeting customer needs through customized products while also attempting to keep shareholders happy. Another company uses a customer-centric KPI that reflects diversified lenses and revisits it every year. Some companies expressed more of a focus on providing value to policyholders, and some others focus on shareholders, while still others use a more holistic approach that considers the needs of all stakeholders. Further, some companies indicated the importance of engagement with employees to understand job and compensation satisfaction.

Some companies mentioned that activity to support environmental, social, and governance (ESG) initiatives may lead to an additional operational cost.

4.5 PRODUCT DEVELOPMENT AND PRICING

The responses show that the companies have different approaches to product development and pricing. A few companies consider themselves leaders while most others consider themselves followers (often indicating “fast followers”). Some companies were clear that they attempt to be “industry leading” for certain product lines and followers for other product lines. Companies that indicated they are followers feel they win business by providing superior service (even if their prices aren’t the most competitive) or by being a strong partner to other companies.

Some companies indicated that distribution has significant input into product design. They will research their potential client base and then develop a product according to their perception of client demand. They also receive indications from their distribution channel as to the product designs that will cultivate that demand.

Companies appear to balance the needs of their stakeholders in different ways. Some companies focus on meeting customer needs through customized products, while others focus on providing value to policyholders and shareholders. Some companies use metrics such as IRR, operating margin, and value of new business to measure their performance, while others use a more holistic approach that considers the needs of all stakeholders. The specific metrics used and their relative importance vary among the companies.

4.6 ORGANIZATIONAL STRUCTURE

Companies have different organizational structures and approaches to decision making. Some companies have a more centralized approach, with key decisions being made by the CEO, CFO, or CRO, while others have a more decentralized approach, with business units having more autonomy. The specific functional areas and their responsibilities also vary among the companies, with some having separate risk, actuarial, and finance functions, while others combine these functions. The reporting lines and decision-making processes vary among the companies.

The responses show that the area responsible for decisions related to capital consumption and origination, risk, and ALM varies among the companies. Some companies have a separate risk function that is responsible for these decisions, while others have a more integrated approach within the lines of business, including connection with the CFO or CEO being involved in the decision-making process.

The responses show that the reporting lines of the actuarial area vary among the companies. A majority of companies have the actuarial area reporting through the CFO, while others have it reporting directly to the CEO or another senior executive.

The responses show that the independence of the risk area varies among the companies. Some companies have an independent risk area that reports directly to the board, while others have a more integrated approach, with the risk area reporting to the CEO or CFO.

In general, companies appear to have different organizational structures and approaches to decision making, with varying degrees of centralization, functional specialization, and decision-making processes.

4.7 LESSONS LEARNED

As discussed above, the companies interviewed have adopted a variety of approaches to use of financial and accounting metrics, along with their approach to developing strategies and decision making. A few common themes emerged from the discussion that companies considering effective strategic decision making may wish to consider.

- While using a variety of financial and accounting metrics, both for internal and external reporting, may provide a comprehensive view of the company's performance, it also may make it challenging for strategic decision making. Sometimes it is necessary to consider all these varying metrics given the number of the company’s constituents. Even so, it may be useful for companies to explicitly determine the metrics that are the company’s management "north star," which could be helpful for strategic decision making and communication with these constituents.
- Balancing the short-term and a long-term focus may be challenging. Some companies use different metrics to measure short-term results and other metrics for measuring long-term goals. While those metrics are individually appropriate for their purposes, they may diverge in effectiveness for tying short- and long-term goals together. Metrics for bringing the short-term and long-term goals together (or a process for tying them together) can be helpful for strategic decision making.
- Organizational structures varied by company, with some decision making more centralized, and others more driven by the business unit. Sometimes the structure of the company was determined based on an explicit choice and sometimes they were the natural result of how the company managed to grow over time. For example, some companies have made explicit decisions to embed the risk function within specific business units or elevate it to report to senior leadership. The companies with structures that were based on explicit decisions appeared more confident in their ability to be effective in their strategic decision making. It is likely worthwhile for companies to have a process in place to periodically (perhaps as part of its long-term plan) consider their organization structure and its effectiveness in strategic decision making, allowing for an explicit decision point if its current structure is optimal for its current business offering or if it can use improvements.

5. In-force management

In-force management allows companies to maintain stability and profitability in their operations by overseeing existing policies and monitoring risk exposure and policyholder behavior. By proactively managing their in-force block, insurers can identify and address potential issues early on, allocate resources effectively, and make necessary adjustments to maintain financial stability and meet their long-term obligations to policyholders. Companies have varying objectives, priorities, and challenges to consider when managing their in-force block.

5.1 APPROACH TO AND OBJECTIVES OF IN-FORCE MANAGEMENT

In this section we examine how companies approach in-force management and discuss goals and objectives. In general, both in our interviews and in our work in the industry, we have seen that the approach to in-force management varies from company to company. Managing nonguaranteed elements (NGEs), finding ways to enhance customer value, and reinsurance considerations are examples of in-force management considerations that we will discuss throughout this section.

In our interviews, we found that companies have different priorities for in-force management, depending on their business strategies, product features, and market conditions. Some companies view in-force management as a high priority, while others view it as a low priority or not a priority at all. Most companies we spoke with do not have a dedicated in-force management team, but we found in most cases they do have a cross-functional committee or partnership across teams that has the goal of discussing and evaluating potential actions.

Even without a formal in-force management team, companies discussed reviewing financial projections and evaluating product performance and profitability level in aggregate and more granularly by block or line of business. They have annual goals for earnings, capital usage, and sales volume. The companies we spoke with that noted in-force management was a high priority described close, coordinated efforts across product, finance, the chief actuary, CEO, and other teams. Some noted they had regular conversations at the executive level and a consistent effort to vet various ideas and potential impacts, and others indicated the conversations were more spontaneous.

A few companies stated that they did not have any personnel dedicated to in-force management and that it was not a priority. One company acknowledged that it was becoming a higher priority now, as interest rates are rising, and for NGEs, New York Regulation 210 and the litigation environment around COIs are pushing them to do more analysis.

In terms of objectives of in-force management, companies noted that there is a lot to balance, including:

- **Improving profitability and capital efficiency:** Companies aim to improve their earnings, capital usage, and return on equity by managing their in-force products. They look at metrics such as target spreads, margins, persistency, and risk-adjusted returns.
- **Enhancing customer value and retention:** Some companies are most focused on providing value to their existing customers and retaining them for the long term. They look at customer satisfaction, loyalty, and feedback. They also consider actions such as offering enhanced benefits, exchange programs, or new products. They are focused on balancing earnings and profit with customer value.
- **Pursuing business growth and development:** Some companies use in-force management as a way to grow their business or diversify their portfolio. They look at market opportunities, competitor actions, and product innovation. They are also focused on balancing distribution partner priorities.
- **Meeting regulatory requirements:** Some companies must comply with regulations that govern their in-force products, such as setting dividends, interest crediting rates, or NGEs. They also must report their projections and performance to the regulators and the board.

Balancing multiple objectives can be difficult, particularly if there is not a dedicated team or a structured process for evaluating in-force management activities. In the next section we will dive deeper into some of the actions companies consider and metrics for how they make decisions.

5.2 IN-FORCE MANAGEMENT ACTIONS AND METRICS

In our interviews, we discussed in-force management actions that companies had considered or implemented, along with metrics they used to make decisions. The main actions companies mentioned were managing NGEs such as credited interest rates, cap rates, and COIs; offering incentives or buy-back offers; and reinsurance considerations such as whether to reinsure more or recapture. We will discuss these actions, along with metrics companies use to make decisions on what to implement, in the following section.

- **Managing NGEs:** When evaluating NGEs, companies described thorough processes for experience studies, and a few in particular noted a focused effort on mortality analysis, but they were split on how they planned to manage COIs. Some indicated they would change or consider changing COIs if the analysis showed it was warranted, but others said they would not consider COI changes. Reasons for this included cultural decisions around not wanting to increase rates and concerns around potential litigation. The conversations we had on this topic are consistent with what we've seen around the broader industry: Some companies are proactive in revising COIs when warranted, and others cite cultural and legal reasons for not doing so. However, we have been seeing an increase in litigation around COIs even if companies do not increase rates (recent arguments are that companies should have decreased rates, or that they were improperly set at issue), so not increasing COIs will not necessarily protect companies from litigation.
  - Companies use different approaches to set the level of credited interest rates and non-guaranteed index account parameters (caps, participation rates, etc.) for their in-force products, depending on their product features, market conditions, and objectives. Some companies follow a formulaic approach, where they have predefined formulas or rules to determine the credited interest rates and index account parameters based on their investment return expectations, target spreads, option costs, or minimum guarantees. Some companies benchmark their rates against their competitors, where they monitor the market rates and adjust their rates accordingly to stay competitive or attractive. Some companies adjust their rates to the market conditions, where they consider the interest rate environment, the customer behavior, or the regulatory changes and modify their rates accordingly to optimize their risk, profitability, or capital.
- **Enhanced benefits or exchange offers:** There are a few actions companies mentioned that were targeted toward customer satisfaction or persistency, or to reduce their guarantees or liabilities. Some companies have considered offering enhanced benefits such as a higher cash surrender value or persistency bonuses to their in-force customers. Others piloted or implemented buyout or exchange programs, and one company mentioned offering additional products to its current customers to better serve their needs. Good customer data is key to making these programs successful.
- **Reinsurance considerations:** Reinsurance is another area where companies have been evaluating potential actions to either reduce their risk exposure, free up capital, or optimize their portfolio. A few companies have reinsured some or all of their life blocks of business, and others are considering adding more reinsurance. Other companies are considering recapturing some or all of their in-force blocks due to rate increases. Reinsurance analysis includes looking at an economic view of claims and premiums and performing sensitivities to help make these decisions.

When evaluating potential in-force management actions, most companies stated they did not have explicit metrics or thresholds for making changes. They indicated a variety of metrics they reviewed, including profitability, risk-adjusted returns, persistency, customer satisfaction, and loyalty. Companies indicated that they look at both STAT and GAAP earnings when evaluating in-force management opportunities. They consider point-in-time statistics as well as medium (three to five years) and long-term (10+ years) views. A few companies mentioned they are also incorporating or considering incorporating embedded value into their process.

Companies also consider the impact of potential actions on their regulatory capital, capital generation, GAAP earnings, and risk. Some companies have structured thresholds and limits that trigger action, while others rely on management discretion and judgment. Overall, companies use a combination of quantitative and qualitative factors to make in-force management decisions, taking into account their financial performance, regulatory requirements, customer value, and distribution partners.

5.3 IN-FORCE MANAGEMENT CHALLENGES

Companies face a variety of challenges surrounding in-force management. In this section we will discuss some common themes that came up in our interviews.

- **Data and modeling issues:** Lack of data was a common challenge we heard during our company interviews. For some companies, that meant the lack of available pricing models or original pricing assumptions for their in-force products, which makes it difficult to evaluate their profitability and performance. Other companies mentioned credibility issues with their data, and uncertainty around interest rates and future COVID and long COVID risk. Even with enough data, companies also find it difficult to reconcile with a different environment now compared to when products were priced. Model complexity, understanding results, and runtime were also challenges companies face.
- **Regulatory and legal constraints:** Companies noted challenges in complying with Regulation 210 in New York, or dealing with litigation risks, such as COI lawsuits. These factors limit their flexibility in making changes to NGEs or other product features. As the litigation environment continues to grow for COIs, more and more companies are realizing that not changing COIs is not necessarily protection from litigation, so they need to be prepared for this possibility.
- **Distribution and customer relations:** The mutual companies that we spoke with discussed the need to balance their in-force management objectives with their distribution strategy and customer value proposition. They must consider the impact of any changes on their existing customers, their distribution partners, and their reputation in the market. They noted that how they communicate with customers is important.
- **Resource and priority limitations:** Without a dedicated team for in-force management work, companies indicated that not having enough resources—including time and staff—to do the work sometimes posed a challenge. Some companies noted that with interest rates rising, in-force management was becoming a higher priority; however, if it had not been a priority in the past, it can be difficult to turn attention to this area now.
- **Conflicting objectives**: Many companies noted challenges around conflicting or changing objectives. They struggle with how to rank priorities and how to balance company goals with policyholder value. Without a dedicated team or structured process for making decisions, it can be difficult to take action.

5.4 CONSIDERATIONS FOR ENHANCING IN-FORCE MANAGEMENT

Overall, we heard some consistent themes in our interviews on in-force management, which parallel observations made in the broader industry. Company priorities and objectives cause a variety of approaches to in-force management, from dedicated teams with frequent analysis and active management to cross-functional committees that meet periodically to discuss ideas and potential actions to a lack of dedicated personnel focusing on these issues. Regardless of the team structure, companies care about earnings, profitability, and customer and distribution relationships, and they face similar challenges around data and decision-making frameworks.

Here are a few considerations for companies to consider if they would like to enhance their in-force management analysis:

1. **Set up or enhance workflows for getting data**

   This includes customer data to be able to offer incentives or exchanges, as well as keeping and maintaining good pricing documentation to make future analysis easier.

2. **Develop a framework for how to review, evaluate, and make decisions on potential actions**

   For managing NGEs, Actuarial Standard of Practice (ASOP) 2 lays out guidance for an NGE framework and determination policy that can help companies follow a defined process for evaluating their products and making decisions on whether to make revisions. Even if there is no plan to change NGEs, following the process outlined in ASOP 2 for analyzing NGEs and documenting the reasoning for decisions will help companies be better set up for litigation if it occurs.

   Even beyond NGEs, the practice of establishing a decision-making framework will help add structure around how ideas are proposed, how to analyze potential impacts, how to balance objectives, and how to coordinate among teams and stakeholders to make decisions on whether to proceed with various actions.

6. Investments

Understanding insurance companies' investment strategies in response to economic shocks, interest rate fluctuations, and long-term strategic goals is crucial for comprehensively assessing their management approach. By examining their re-evaluation processes during economic shocks and low interest rate environments, we gain insights into their adaptability and risk management practices. Furthermore, exploring how they adjust their investment strategies in the face of rising interest rates provides valuable information on their ability to capitalize on changing market conditions. Analyzing investment trends over the past decade illuminates their strategic direction and tactical decision making, offering a holistic view of their management approach. Additionally, insights into specific asset preferences and aversions provide context for their risk appetite, diversification strategy, and alignment with company objectives.

6.1 ECONOMIC SHOCK PREPAREDNESS

In exploring the theme of economic shock preparedness, our focus was on understanding how insurance companies proactively reassess and realign their investment strategies in response to unexpected economic challenges. The way an insurer prepares for economic shocks demonstrates its risk management capabilities and the resilience of its investment portfolios. It is crucial for understanding the company's ability to adapt to unforeseen circumstances and maintain financial stability.

During our interviews, we learned that the process for re-evaluating the investment strategy in view of economic shocks involves a comprehensive and iterative approach across all types of insurance companies. Companies begin by conducting regular reviews of their strategic asset allocation (SAA) to ensure alignment with changing economic conditions. Regardless of company type, adaptability and flexibility are key, with all companies emphasizing risk management, collaborating with internal teams across functions, and considering liquidity needs. These processes highlight a dynamic and collaborative approach that allows companies to proactively navigate economic shocks and make informed decisions in response to evolving market conditions.

Our interviews also revealed the following areas of focus:

- **Benchmarking:** Some companies we interviewed conduct regular benchmarking of their investment policies, showcasing a commitment to industry best practices. Their emphasis on transparency and clear communication is notable, reflecting their accountability to stakeholders and the market.
- **Diversification and adaptability:** There is a notable focus on diversification and adaptability, as seen in the avoidance of specific bond issuers (e.g., regional banks) and a willingness to adjust tactical strategies based on changing economic conditions. None of the companies we have engaged with opted to reallocate their existing asset portfolios, even in sectors facing challenges, primarily due to the unrealized loss position for the existing asset portfolio.
- **Collaboration and external partnerships:** Some companies we interviewed highlighted their emphasis on internal collaboration; they also frequently partner with external investment firms to enhance their investment capabilities. The strategic use of external partnerships complements their internal teams and contributes to a diversified approach. Typically, these companies engage with various external asset managers, who each specialize in a specific investment area such as fixed-income securities, commercial mortgage loans (CML), and alternative investments. A dedicated internal investment team oversees these asset managers and collaborates with the actuarial and risk teams to assess the SAA. Following the review, the SAA is approved by the board and the investment committee. Most companies perform an annual or biennial adjustment of their SAA, but in some cases, SAA has been reviewed more frequently.
- **Adaptability of tactical strategy:** While maintaining a consistent long-term SAA, some companies recognize the importance of making tactical adjustments for specific situations, such as dialing up or down private asset classes based on market dynamics. We observed that some companies monitor their tactical asset allocation (TAA) daily and can promptly alter the new money strategy. However, some of the challenges companies are facing include enhancing their evaluation metrics, in addition to risk-return metrics and establishing an effective feedback loop from senior management team to facilitate prompt decision-making.

Broader observations from across the industry

Industry trends indicate a collective shift toward a more proactive and adaptable investment approach across public, private, and mutual companies. Notably, the emphasis on dynamic risk management, collaboration, and strategic adaptability echoes broader trends in the insurance sector. The industry seems to be moving toward a more diversified portfolio, incorporating alternative investments and optimizing asset-liability matching strategies.

In conclusion, the observed themes and practices within the insurance industry illustrate a nuanced and multifaceted approach to economic shock preparedness. While each company type exhibits unique characteristics, the overarching commitment to adaptability, risk mitigation, and strategic alignment with company goals is evident. The emphasis on collaboration, whether through internal partnerships or external advisory engagements, signifies a recognition of the complexity of investment landscapes. As the industry navigates evolving economic conditions, a customer-centric approach, strategic diversification, and an openness to alternative investments emerge as key pillars of successful investment management. The observations collectively highlight the resilience and foresight of insurance companies in safeguarding their financial health and ensuring sustainable growth amid dynamic market challenges.

6.2 INVESTMENT PORTFOLIO UNDER VARIOUS MARKET CONDITIONS

This section examines how insurance companies manage their investments amid changing market conditions, specifically focusing on the effects of low and rising interest rates. It aims to uncover strategies that showcase adaptability, long-term vision, and the ability to generate returns in challenging landscapes.

Impact of low interest rates

A company’s response to prolonged low interest rates reflects its ability to generate returns in challenging market conditions. This is essential for policyholders and stakeholders as it directly influences the company's profitability and financial health over the long term.

Our interviews revealed several patterns:

- **Adaptability and strategic balance:** Across the board, all the insurers we interviewed demonstrate a high degree of adaptability to prolonged low interest rate environments. A common theme is the delicate balance between long-term SAA and shorter-term tactical adjustments. SAA plans are often liability-driven, optimizing for after-tax performance and considering factors like market capacity, regulatory requirements, and competitive advantages. Tactical strategy is adjusted promptly based on the changing market environment. The commonly used metric to assess SAA is to analyze the risk and return per unit of capital. Other companies select asset classes to maximize the EV within the risk and capital limit.
- **Diversification strategies**: In response to a low interest rate environment, companies diversify into different asset classes. Companies are showing a pronounced interest in private assets, with a focus on private equity and private placement assets to leverage illiquidity premiums and low default. Companies who are acquisition-tilting invested more into private equities. Assets like CMBS and collateralized loan obligations (CLOs) are gaining popularity in a low interest rate environment, especially AAA-rated CMBS for perceived safety and CLOs for wider spread and low default. Overall, there is a persistent emphasis on liquidity and a diversified approach to navigate the challenges of a low interest rate landscape.
- **Strategic focus**: Some public companies we interviewed emphasize liability-driven and after-tax performance optimization in SAA. Companies in this category actively explore non-traditional assets, including private placements and AAA-rated CMBS, leveraging expertise from private asset managers.
- **Liquidity priority**: Some companies prioritize liquidity in the evolution of SAA, with a strong emphasis on assessing cash needs.
- **Conservatism**: Some mutual companies have shown their conservative approach during periods of low interest rates. They tend to avoid below-investment-grade credit, focusing on maintaining a conservative position while diversifying the asset portfolio.

Impact of rising interest rates

Understanding how a company adapts to rising interest rates also provides insights into its flexibility and ability to optimize returns amid changing market conditions. This is critical for maintaining competitiveness and ensuring sustainable growth.

Our interviews revealed that companies have responded to the current rising interest rate environment by limiting the rotation of the existing asset portfolio due to the current unrealized loss position. While there are limited changes in SAA, companies are adjusting their tactical strategies in response to the dynamic market environment. Public companies tend to be more inclined to take advantage of market situations, such as investing more in floating rate bonds when short-term interest rates rise. Their focus on efficient portfolio management and capital considerations suggests a pragmatic approach to market dynamics.

Overall, there is a keen awareness of potential credit events, prompting a deliberate shift toward investments in secured and high-quality assets. The emphasis on limiting below-investment-grade assets reflects a commitment to maintaining a robust and conservative investment strategy amid changing market dynamics.

Decade-long investment trends

Examining long-term investment trends reveals a company's strategic vision and its ability to align investments with evolving market dynamics. This helps stakeholders understand the company's commitment to consistent growth and value creation.

Our interviews found that over the last 10 years, companies have adapted their investment strategies in several areas.

- **Liquidity management:** This has been a significant concern for some companies, in both low- and rising-rate environments. Companies with less of a liquidity concern have moved their portfolio into less liquid but higher-yielding assets, embracing private asset types including CML, agency MBS, CMBS, and CLOs to navigate a low-rate environment. In contrast, companies with a liquidity concern have designed their SAA by prioritizing liquidity. They seek higher yields while keeping a close eye on the commercial real estate sector due to vacant office space since the COVID-19 pandemic. Finally, mutual companies, which have a long-term focus and conservative approach, have shown minimal changes in their SAA due to interest rate changes. They diversified into commercial mortgages and CLOs and prefer to hold these assets until maturity.
- **Stability and long-term focus:** Stability and long-term orientation are key themes for private companies, who often prioritize risk-adjusted return, reflecting a strategic assessment of potential risks and rewards. Private companies also emphasize prudent asset-liability management (ALM), such as duration-matching assets and liabilities to mitigate interest rate risk. Some private companies implement an all-weather investment strategy to prepare for various market conditions. By diversifying their portfolios and making investments resilient to different market scenarios, private companies aim to navigate uncertainties and reinforce their financial position over the long term.
- **Customer-centric approach:** Mutual companies consistently emphasize a customer-centric approach, aiming to protect policyholders against financial instability with conservative investments such as high-quality bonds.
- **Strategic asset allocation and collaboration:** Although, historically, investment decisions were predominantly made in house, the increasing complexity of holdings has led some companies to adapt their approach by hiring external advisors to provide specialized insights and guidance. This reflects a recognition of the evolving landscape and a proactive effort to navigate the challenges and opportunities presented by a changing market. The regular SAA process involves the collaboration among the investment team, actuarial team, and external advisors.
- **Shift toward alternative investments:** Historically, mutual companies have invested solely in high-quality bonds. However, there recently has been a notable shift in their investment strategy, with a current emphasis on alternative investments that may achieve higher yields while enhancing portfolio diversification. In particular, some companies we interviewed are strategically shifting toward transportation and infrastructure funds to align better with liabilities and to diversify portfolios. This flexibility and willingness to explore non-traditional asset classes reflects a forward-looking approach.

Broader observations from across the industry

Looking at the wider industry, a consistent trend has been the focus on adaptability in investment strategies among insurance companies as they adjust their SAA and make tactical shifts.

U.S. life insurance companies are consistently diversifying their investment portfolio into various asset types, including structured securities and private fixed-income assets as well as alternatives. This trend indicates a collective effort to leverage illiquidity premiums and explore avenues for enhanced returns. The popularity of assets like CLOs and private asset-based securities (ABS) reflect a shared recognition of their lower default risk compared to public credits and the wider spreads available in low interest rate landscapes.

Liquidity management is crucial, especially considering low and rising interest rate environments. Prioritizing liquidity needs in the evolution of SAA underscores the importance of maintaining flexibility and being well-prepared for potential shifts in market conditions.

Conservatism is a common approach among mutual companies, emphasizing a commitment to conservative investment practices, avoiding higher-risk assets, and maintaining a resilient position. This cautious stance positions mutual companies to weather uncertainties and uphold a customer-centric approach.

In conclusion, the investment strategies of insurance companies reflect resilience and adaptability in evolving market conditions. Navigating low and rising interest rate environments, coupled with a strategic focus on diversification and liquidity management, demonstrates a commitment to long-term sustainability. These observed trends, shaped by a combination of strategic and tactical considerations, provide valuable insights into the broader landscape of U.S. life insurance investment management, emphasizing the importance of flexibility, diversification, and prudent risk management.

6.3 ASSET SELECTIONS

Here we delve into the strategic decisions made by U.S. life insurance companies regarding the asset classes they prefer and those they choose to avoid. This section unveils the critical insights embedded in a company's risk appetite, diversification strategies, and views on potential growth areas—information that is crucial for understanding the company's forward-looking investment approach.

Preferred asset classes

Our interviews found that many companies are strategically emphasizing structured securities, with a notable preference for agency MBS, high-quality CMBS, and CLOs as they aim to enhance diversification in their investment portfolios. In particular, CLOs are gaining popularity for their attractive combination of high spreads and low default rates.

Some companies have highlighted the significance of private placement assets, such as private ABS, which are valued for their secure nature and lower default probabilities compared to public assets. Acquisition-tilting companies express a greater interest in private structured securities due to their easier access to private deals, such as middle market lending CLOs, facilitated through their relationship with asset managers. In addition, residential mortgage-backed securities (RMBS) have been resilient, even during the pandemic, with a limited number of downgrades, and some companies we interviewed are investing more in this asset class. Moreover, there's a growing inclination toward infrastructure-related assets as part of efforts to diversify the overall portfolio.

Asset classes to avoid

Identifying which asset classes a company is avoiding indicates its risk-management priorities and helps assess the prudence of its investment decisions. This information is vital for understanding how the company aims to protect its portfolio from potential downsides.

Here, our interviews found many companies have shown concern about commercial real estate including CML and commercial real estate equity (CRE) due to the persistently high vacancy rates in office buildings resulting from the pandemic's impact on work patterns. The continued uncertainty surrounding the commercial real estate sector has made companies hesitant to invest in commercial real estate associated with office space.

Furthermore, a notable trend is to reduce or avoid below-investment-grade holdings due to concerns about potential credit events, and instead to prioritize high-quality and investment-grade assets. This risk-averse approach aligns with a broader strategy to safeguard portfolios against the uncertainties and potential challenges associated with a volatile market environment.

Broader observations from across the industry

Looking at industrywide trends, life insurance companies are consistently diversifying their investment portfolios. They are increasing allocations to private bonds, structured securities, and alternatives such as private equity, hedge funds, and real estate equity funds. In particular, their increasing investments in private bonds, which can offer higher yields and lower default risk compared to public bonds, has been a prevalent trend over the past several years. Despite an overall decline of bonds allocated to residential and commercial mortgage-backed securities since the financial crisis, life insurers have been progressively increasing their allocation to other ABS. As noted previously, some companies are also recently investigating and investing more in RMBS.

The strategic investment in structured securities adds further diversification to bond portfolios, mitigating overall portfolio risk. The popularity of CLOs, due to their appealing combination of high spreads and low default rates, reflects a broader industry acknowledgment of their value in challenging market conditions. A potential regulation change—e.g., that would increase an RBC charge of CLO equity tranches—may impact the insurers' view on CLO investment. But the companies we have interviewed do not have any immediate concerns due to their limited investment in CLO equity tranche.

Additionally, there is a growing interest in real assets such as infrastructure, renewable energy, and natural resources as part of a strategic effort to diversify portfolios beyond traditional securities.

In conclusion, the trend toward diversification in investment portfolios, evident in both interview feedback and broader industry observations, is likely to persist. Notably, there is an upward trajectory in the adoption of structured securities, encompassing agency MBS, high-quality RMBS, ABS, and CLOs. CMLs have been attractive among U.S. life insurance companies due to their higher spreads compared to corporate credits. However, concerns surrounding CMLs associated with office space have evolved in recent years, primarily due to elevated vacancy rates in office buildings post-pandemic. Companies continue to seek enhanced yields while being cautious about potential credit events in a volatile market environment.

6.4 INVESTMENT CHALLENGES AND ENHANCEMENTS

This section aims to shed light on the prevailing challenges faced by life insurers we have interviewed and explore potential enhancements and solutions to address them effectively.

Large life insurance companies often encounter challenges when making timely tactical investment decisions due to multiple layers of management. Streamlining communication and feedback loops among senior leadership can expedite decision-making processes. Additionally, some companies are grappling with prolonged review periods of their SAA strategy. Leveraging technology solutions, such as cloud-based risk analyzing and modeling tools, can accelerate portfolio selection and enhance operational efficiency.

Medium and small life insurance companies encounter challenges in effectively assessing risks and optimizing portfolios to manage and diversify their investments. Implementing advanced risk-return metrics such as efficient frontier can improve portfolio performance and risk mitigation. Additionally, navigating regulatory requirements and compliance standards can be resource intensive. Enhancing collaboration with regulatory authorities and adopting agile regulatory compliance frameworks can streamline compliance processes and reduce administrative burdens.

Some life insurers face unique challenges, such as managing long-term liabilities and navigating changing interest rate environments, which can impact investment strategies. Implementing liability-driven investment (LDI) strategies can better align investment portfolios with future liabilities, reducing exposure to interest rate risk. Moreover, exploring innovative products like interest rate swaps can help to lengthen the duration of asset portfolios.

7. Inorganic growth/structuring

7.1 GROWTH AT NEW VERSUS ESTABLISHED INSURERS

Over the past 15 years or so, the U.S. life and annuity insurance market has observed a significant era of inorganic growth and structuring led primarily by new entrants to the industry, specifically a mix of private equity and asset management firms. A lot of the observed inorganic growth on several insurers' balance sheets was really a shifting of assets and liabilities from another insurer who desired to generate more free capital and/or de-risk from a certain type of risk profile (e.g., deferred annuities with high guaranteed crediting rates). A lot of the structuring witnessed recently came about in the arena of offshore (non-U.S.) reinsurance, traditionally with an insurer's own subsidiary set up in, for example, Bermuda.

Knowing these patterns, we then asked insurers about them, and their answers revealed a clear cultural difference between what we will term the "New Entrants" versus the "Old Guard," where:

- New Entrants are the insurers supported by the new entrants (asset managers, private equity, etc.) who have ventured into the U.S. life and annuity space over approximately the past 15 years.
- Old Guard are the publicly traded or private (including mutual) insurers who have not received recent material external investments or been purchased.

7.2 INORGANIC VS. ORGANIC GROWTH

The New Entrants, who often are funded by capital from their parent company (who in many cases concurrently raised such capital from other parties or limited partners such as pension plans), consistently had inorganic growth as a mainstay in their strategy for using their free capital (or access to deployable capital from external sources). The strategy was rooted in a valuation or pricing advantage that was often driven by a wider set of structuring options, as well as existing personnel with such expertise in, for example, offshore reinsurance, a differentiated asset manager with expertise in private lending, etc.

In contrast, the Old Guard had limited appetite for considering inorganic growth unless the opportunity essentially presented a distribution platform that would further the company's organic growth or enable it to participate in a new part of the insurance industry, such as insurtech. Notably, there were significantly fewer situations where distribution platforms were for sale than there were closed blocks in runoff that drove inorganic balance sheet growth for many of the New Entrant insurers in the recent period.

The Old Guard had little to no appetite for inorganic growth for closed or in-force blocks for a variety of reasons. One, oftentimes there would be little to no valuation/pricing arbitrage available due to fewer structuring options or expertise to manage an acquired business available at the Old Guard insurers. Second, there would be a lack of strategic purpose for their free capital being used to increase exposure to legacy blocks, when often they themselves were being strained by legacy blocks (expense synergies were rarely material enough to offset sources of strains such as depressed interest spread earnings). Finally, and importantly, asset management was an area of competitive challenge for the Old Guard that was the exact area of competency for the New Entrants, which limited the Old Guard's interest in inorganic growth for blocks on offer in the recent era. (Because Old Guard insurers have sometimes had limited in-house asset-management resources, especially in recently growing areas such as private credit, they have forged partnerships with asset managers, in the form of the budding "sidecar" vehicle market.)

The Old Guard insurers rather used divestitures to the New Kid insurers to free up capital as they considered organic growth initiatives via, for example, new product launches and investments in insurtech platforms or, in some cases, bettering their capital ratios. Inorganic growth for the New Entrants allowed for organic growth for the Old Guard insurers, which was important, especially for mutual Old Guard insurers with their limited access to capital-raising opportunities.

The inorganic growth strategy advanced by the New Entrants was of value for the Old Guard insurers as the New Entrants widened the pool of traditional reinsurers that dominated the U.S. industry, but more importantly also widened the net of liabilities considered for reinsurance (for example, more asset intensive blocks, such as universal life with secondary guarantees, which were the sources of strain across the industry in the recent era).

7.3 U.S. ONSHORE VS. U.S. OFFSHORE AND CAPITAL EFFICIENCY

The New Entrants were also more active in the area of structuring complex, often offshore, reinsurance deals involving their own subsidiaries for either products they developed and sold organically onshore, or blocks they reinsured from other third-party insurers (namely the Old Guard insurers). However, the underlying premise of the desire to structure reinsurance across the pool of liabilities at the New Entrants was driven by capital efficiencies offered offshore via a different regulatory framework for reserving and/or capital, where differences in capital charges onshore versus offshore created considerations for offshore reinsurance. Seeking capital efficiency, specifically on the asset side, became of core importance given the materially different asset strategy employed by the New Entrants when compared to the asset strategies at the Old Guard insurers.

When an insurer had both onshore and offshore operations, we consistently heard in our discussions with those insurers that the operations were managed in a similar and consistent way, meaning that there was no difference in relative capital levels or risk tolerance among their various operating jurisdictions or at one entity versus another. The sole purpose of the offshore entity was to serve the aggregate entity from a capital-management perspective to reduce capital redundancies that might exist in one pocket, as well as any tax benefits (to the extent that they were materially relevant as the 2017 tax law change dampened tax benefits that were more prevalent before the legal change). Consistency in managing both onshore and offshore entities was also important to the insurers for regulators and rating agencies to be aware and know of via their provided filings and presentations.

For insurers that did not have an offshore entity, the overarching theme in driving them to the decision not to create one was their size and the purpose of having an offshore entity, especially if it could not achieve a material amount of scale and size. A new entity, especially in a new regulatory jurisdiction, would incur material start-up costs, and the expense base would be further compounded by the need to have staff adept at managing business under that new environment, which would likely require additional hiring that could not be justified unless there were significant scale and capital efficiencies. Further, entities without an offshore subsidiary would have to counterbalance the options available to them via (re)insurers who had such an offshore option that could be used by a cedant instead of the cedant creating their own offshore entity.

We noted that there were a few instances where an entity had no offshore presence but had embarked on the creation of a captive entity onshore for the exclusive purpose of achieving more capital efficiency. This was not limited to small firms, and the entities noted in these scenarios certainly showed interest in considering more innovative capital management solutions as opposed to traditional reinsurance options.

One of the core limitations of going offshore was having to adopt a new framework that was often materially different than the NAIC framework for reserving and capitalization. That meant embarking on a journey that often started with consultants to understand the regime and potential benefits, the impacts from an accounting and tax perspective, etc. After accepting the costs (in dollars and time) of such research, if the decision was to go ahead, there would need to be “boots on the ground”: A team would have to be hired and office space identified to ensure there were local experts able to operate an offshore entity and be responsible to the offshore regulator.

An onshore captive required much less time, infrastructure, and personnel, as the regime and required filings often had broad alignment with the insurer’s current framework. Further, if the regulator for the captive was the same as the operating entity’s state regulator, it created a benefit for liaising and discussing with the same party. Encouraging a management team to effectively launch in a new country for the exclusive purpose of an offshore subsidiary reinsurer was noted to be a large initiative for select insurers with long histories and a stable management team that had not taken such significant steps before. The stretch to consider capital management options in non-U.S. jurisdictions became less of a restriction for entities that came under the control of a new ownership or management team that was brought to change the status quo (i.e., the New Entrants).

8. Risk and capital

The 2008 financial crisis brought risk management front and center for the entire financial services industry. Prior to that, U.S. life insurers had already been considerably ramping up their risk management programs, but over the past 15 years or so we have seen increasing sophistication in industry practices and the establishment of enterprise risk management (ERM)—that is, a truly holistic approach to risk management—as a core discipline. Thus, in looking at how the industry has evolved its holistic approach to balance sheet management, it seemed fundamental to our research to pay careful attention to risk management's role in that.

In our interviews with companies, we addressed a variety of aspects of risk management, and these areas are discussed in this section of the paper:

- How ERM is organized
- What are perceived relative strengths and weaknesses of programs
- Emerging risks
- EC (often described as the quantification of ERM)
- Risk analytics

8.1 ORGANIZATION OF THE RISK MANAGEMENT FUNCTION AND ITS IMPACT ON STRATEGIC DECISIONS

In this section we examine how ERM functions are organized within U.S. life insurers, and what impact those functions have on strategic decisions. We discuss the key activities of ERM units and how those units fit in with the rest of the organization.

Risk governance structures and the associated risk management function at U.S. life insurers are today generally very mature and effective in cultivating the right risk culture and effecting the objectives of risk management. And in the spirit of a holistic approach to balance sheet management, companies across the board (regardless of corporate structure, business complexity, or size) refer to their having an *enterprise* risk management program.

Increasing commitment to risk oversight

Reflecting the increasing importance that ERM had played for life insurers over the past decade, the vast majority of midsize and large life and annuity writers today have a C-level executive in the role of CRO, who is ultimately responsible for enterprise risk matters. Moreover, the CRO position is sometimes an executive board-level position, most notably when the company is a multiline operation and the CRO has risk management oversight of multiple disparate lines of business.

All the companies we interviewed have a dedicated risk function in place, which is overseen by a senior risk practitioner, and the majority of companies have an individual whose sole role is to act as CRO. In a handful of cases, the CRO wears a couple of hats, e.g., CRO and chief actuary, or CRO and overseas subsidiary CEO.

All the companies we interviewed highlighted the far-reaching importance of the risk management unit, and the increasing stature of the individual overseeing that function. One company gave an example of how the CRO had been engaged to work in conjunction with the CFO to oversee a major executive team strategic review, which ultimately resulted in far-reaching decisions including the divestiture of certain types of business. The fact that the CRO was central to the oversight of such an important initiative and ultimately became a major contributor to the decisions is an example of just how much gravitas the CRO role now has in the industry.

The size of the dedicated units at the companies we interviewed varied widely and is a function of the exact mandate of the risk area, as well as company size and business complexity. Reflective of the increasing importance of ERM in the industry, and ERM's wider-ranging mandate, one company highlighted how its dedicated risk team has grown considerably in recent years, from 14 people just two years ago to 26 people today, and is expected to grow further as ERM continues to mature. Another company said it had a risk function comprised of 50 or so people: seven to eight in investment risk, 20 or so in insurance risk (working closely with actuarial), seven to eight in operational risk, some in ALM, and some looking at risk management for overseas jurisdictions.

One company described how the CRO oversees separate teams for financial, operational, and third-party risk management. The financial team comprises 11 people looking after stat capital management, EC, EV, ALM, hedging oversight, ORSA, and risk reporting. The operational risk team comprises four people and is a developing area. The third-party team comprises six people and is focused on vendor due diligence. They also have second-line functions around compliance, fraud, and cyber, but these activities lie outside the CRO's mandate.

Regarding reporting structure, the majority of interviewed companies said the CRO is a direct report to the chief executive officer (CEO). In one case ERM falls under Finance and the CRO reports to the CFO, and in another case (as highlighted earlier) enterprise risk oversight falls under the mandate of the chief actuary. In this regard, one participant raised the question of independence within the context of the three-lines-of-defense model (see section 8.1.2), stating that the firm moved CRO reporting from under the CFO to under the vice chair to ensure that there was independence between risk and finance.

Centralized risk function reflects industry shift

Looking more broadly at what we see across the industry, and consistent with the feedback from our interviews, the vast majority of U.S. life insurers now have some centralized function that looks at risk matters from an enterprise or corporate level. This is a significant evolution in the industry over the past 10 to 15 years.

In the few cases where there is no dedicated CRO, companies identify an individual whose primary responsibility is the oversight of corporate risk management even though they have no formal C-level designation (e.g., vice president of ERM).

Also, again consistent with what came out of our interviews, the size of the risk unit varies significantly from company to company and is not necessarily proportionate to the company size. Some of the largest life insurers in the United States have only a handful of dedicated corporate risk people (five or six). Smaller companies can have as many as 20 to 30 members. Clearly the specific mandate of the ERM unit will have a big impact on its size—for example, some units are responsible for hands-on model validation work, whereas others may be responsible for setting model validation guidance and/or policy but not for doing the validation work itself.

Regarding reporting structure, again the feedback from the interviews was consistent with what we are seeing more broadly across the industry: In the majority of cases, the CRO is a direct report to the CEO. Regardless of whom the CRO reports to in the executive management org chart, the CRO will typically have an independent line to the board, reporting matters of a risk nature usually through a dedicated risk committee to the board.

Occasionally, chief actuaries will have risk management as part of their mandates and may hold the joint position of chief actuary and CRO, as we saw in the case of one of the companies we interviewed. However, while more common a few years back, it is increasingly rare to see individuals holding this joint designation, likely due to the concern over potential blurring of the first- and second-line roles, as highlighted as an issue by one of the interview participants.

Looking ahead, the industry expects that, if anything, the role of the CRO and ERM will only continue to become more important. As the world in which we live—and the asset-liability profiles of life insurers—gets more complicated, it is critical that risk management continues to evolve and become front and center in the running of life insurance companies. Additionally, across the globe, we see increasing regulatory drivers pushing insurers to ramp up what they are doing in the risk management space. The recent Consultation Papers issued by the Bermuda Monetary Authority (BMA) in conjunction with its proposed enhancements to the Bermudian regulatory is a good case in point here, with a substantial emphasis on ERM.[1]

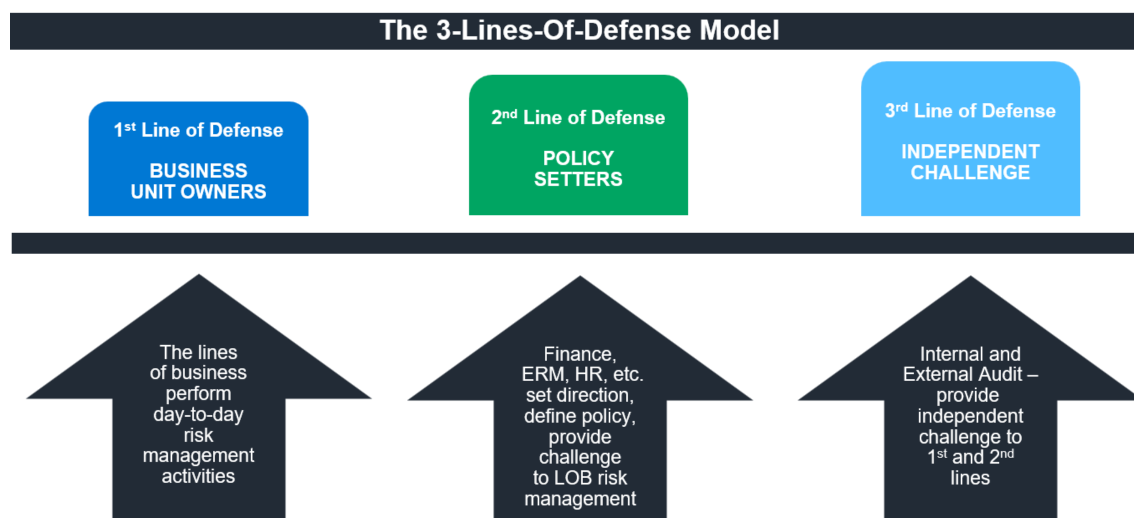
ERM expands from "defense" model to be part of strategic decision-making

The three-lines-of-defense model of risk management has gained increasing prominence across the financial services industry since the 2008 financial crisis. The first line involves risk management activities at the line-of-business level, the second line comprises enterprise-wide risk management activities such as policy setting and independent challenge to the first line, and the third line is internal and external audit. The model helps maintain independence as each line plays a specific role in risk identification and mitigation, reducing the likelihood of conflicts of interest and ensuring a comprehensive and objective approach to risk management across the organization.

Nearly all the companies we interviewed talked about their risk management activities in the context of a three-lines-of-defense model, as depicted in Figure 8.1.

1 Bermuda Monetary Authority (28 July 2023). Consultation Paper: Proposed Enhancements to the Regulatory Regime for Commercial Insurers. https://www.bma.bm/viewPDF/documents/2023-08-24-02-01-31-Consultation-Paper---Proposed-Enhancements-to-the-Regulatory-Regime-and-Fees-for-Commercial-Insurers.pdf

FIGURE 8.1: THE THREE-LINES-OF-DEFENSE MODEL



One survey participant described how the CRO's second-line-of-defense role includes challenging each business owner, going through hazards and opportunities, and asking them what keeps them up at night.

Interviewed companies who discussed the model were also keen to emphasize that ERM is not solely part of the defensive mechanism of the company but plays an important role in driving the corporation forward and helping to achieve all of its corporate objectives. As one of the companies participating in our formal interview process described it, its three-lines-of-defense model is strategic—not just governance, but decision making. That same company described how ERM had a seat at the table when any potential block transaction decision was being made, with a full risk dashboard analysis being produced to support senior management in making a decision over a potential purchase or sale.

Omnipresence, and potential conflicts of interest, with "three lines" model

The feedback from our interviews is entirely consistent with what we are seeing across the industry in terms of the application of the three-lines-of-defense model. Indeed, in terms of greater emphasis being placed on the strategic aspects of ERM, increasingly we see reference to just the "three-lines" model, rather than three-lines-of-defense.

While the concept of the three-lines-of-defense model is conceptually sound, some companies cite practical issues around its implementation; in particular, it can be difficult to ensure true independence between each of the three lines. This has become increasingly relevant as the CRO—who strictly speaking sits at the second line—gets more involved in strategic decision making and potentially was brought in to help with first-line decisions, so that second-line challenges to first-line risk management can be compromised.

The three-lines-of-defense model is here to stay in the U.S. life insurance industry, and we can expect to see increased attention paid to addressing the implementation issues in the years to come.

Regulators have also recognized the potential "conflict of interest" issue, and again the BMA is a good case in point in emphasizing the need to ensure that there are suitable guardrails in place so there is genuine independence between the various lines of defense. The issue is a complex one, and something the industry is still grappling with.

Organizational structures facilitate communication and decision making on risk

It is critical for efficient processes and structures to be in place to ensure that there is good communication on risk matters and that decisions around risk management can be made effectively. This will include making sure it is clear who is responsible for what. Such structures need to be "right-sized" for the specifics of the business in question, recognizing the size and complexity of the organization.

All companies participating in our interviews have risk management processes and structures in place that they believe are appropriate and effective for their businesses. Not surprisingly, the feedback was diverse in terms of what companies viewed as effective—for example, larger companies required more complex formal arrangements such as a cascade of committees, while smaller companies would have more informal forums.

In another example, one of the medium-sized companies we interviewed mentioned they had a formalized ERM structure, with a "Risk Council" on top. The Risk Council comprises the CEO and senior vice-presidents and meets for two hours every month. Underneath the Risk Council is a Mortality Oversight Group and an ALM Oversight Group, and both have the ability to escalate to the Risk Council or the CRO.

One complex (multi-lined) organization we interviewed described how it was working to streamline risk management decision making in the light of the company historically having a compartmentalized organizational structure. Risk activity has always taken place within actuarial, specifically around insurance. Then there were separate activities for operational risk, plus risk management activities within each line of business. In addition, there were special regulatory requirements for certain jurisdictions that were being managed separately. It has been a big exercise to aggregate all of this, or at least move to a greater consistency of approach. A big driver of this move to aggregation was the COVID-19 pandemic and the Russian invasion of Ukraine, which prompted leadership to want to understand the implications for the enterprise. The approach has been to continue to manage from the bottom up but to have more of an integrated versus federated model with a view to identifying how to best deploy limited resources and ensure consistency across the organization. That said, the company will certainly not abandon the core principle of the lines of business having responsibility for first-line risk management activities.

Another important aspect is where decisions around enterprise risk management are made. One participant company raised the question of what it would do if it saw an aggregate risk fall out of a particular range. The answer is very much driven by circumstance—for example, if there was a market risk issue that would be mitigated through hedging activity and hedging would be put in place to reduce the risk down to a comfortable level. However, if there was an operational risk issue, such as fraud risk, the company would not want to have 20 business units trying to manage this kind of enterprise risk, and it would try to solve that as synergistically as possible.

Most firms have risk committees but some take decentralized approach

The feedback from our interviews is consistent with what we see more broadly across the industry.

All medium to large insurers now have a centralized risk committee, typically described as the Enterprise Risk Committee (ERC) or corporate risk committee, which is a senior management group comprising at the very least the CRO and direct reports as well as representatives from the various lines of business. The CFO is often on the committee (indeed, they may chair it), and in some cases the chief investment officer and the chief information officer are part of the group.

Many companies also establish risk committees for specific risks, the most common being ALM, investment risk, and credit risk committees. There are also cases where a specific risk committee had been set up for operational risk and another to look at emerging risks, but these saw varying degrees of success. Where committees for individual risks exist, the ERC is set up as an umbrella committee that takes input and has representation from these other risk subcommittees.

Some companies have a more decentralized approach to ERM, with what is sometimes referred to as a series of "risk coordinators." For example, there could be a risk coordinator for each business unit and then one for each risk that is managed at an enterprise level. In these cases, the role of the centralized group is to provide a framework for the risk coordinators to facilitate the sharing and coordination of information. This approach has attractions in terms of the lines of business being more alert to the day-to-day risks impacting their business, and also helps engrain a risk culture across an organization.

In recent years, the U.S. life insurance industry has made significant strides in fortifying its risk management practices through the establishment of robust structures and forums. Key to this progress are the implementation of formal risk committee structures (in some cases including dedicated committees overseeing particular areas such as compliance and internal controls) in conjunction with the adoption of the three-lines-of-defense model, and the delineation of clearly articulated responsibilities governing decision making in risk management. These types of structure have fostered effective communication and decision making around risk management that goes across the organization, hence promoting a genuinely holistic approach to ERM.

8.2 STRENGTHS AND WEAKNESSES OF THE RISK MANAGEMENT FUNCTION

In this sub-section we discuss what U.S. life insurers perceive to be strengths and weaknesses of their risk management function. Clearly, great strides have been made in risk management across the financial services industry since the 2008 financial crisis, but it is a continual improvement process. How does the life industry stack up relative to other financial services providers, and what are areas for improvement that can be expected in the years to come?

Risk culture vital to ERM programs

Any organization is a reflection of its culture, whether that be ethical culture, a culture of innovation, or a culture that encourages diversity, equity, and inclusion, among other things. “Risk culture” can be an important part of that organizational culture, and that is especially important in the context of a life insurance company where a failure to instill throughout the company an appreciation of risk management could be catastrophic.

Most of the companies we interviewed indicated that an awareness of risk permeated the company, so that it underlays decisions at all levels, across the organization. We commonly heard that firms seek to engrain a deep risk culture throughout their corporations and establish risk processes that facilitate communication of risk information across the business. A successful ERM program is founded on a risk culture that starts with board buy-in, hence setting the tone at the top, and runs throughout the organization. One of the companies we talked to said “our very first CRO is the CEO.”

One of the interviewed companies highlighted transparency and openness as key to its risk culture. It is proud that for each major decision, risk has its say, so that risk management is pervasive throughout the organization and there is a “no surprises” culture: Don’t shoot the messenger, don’t hide emerging data.

Another company also highlighted transparency as a key strength, along with its ERM program’s comprehensiveness and its risk taxonomy and associated classifications. On the other side of the coin, it saw opportunities for improvement including better risk measurement and building out the risk management toolkit. Other opportunities include how to take advantage of risks. Also, some areas remain decentralized, and there was a need to figure out strategically what should be done centrally and what not.

In terms of benchmarking to peer companies, one interviewed company noted that every company has been continually raising its game. There is a wide variation by business unit and business size across the market; for example, large long-term care carriers are really good at managing long-term risks. On the banking side, compared to insurance, there have been much larger investments in risk management, especially from a regulatory perspective, and the requirement for very strong model risk management. Indeed, one interviewee noted it is quite striking how much more the banks do in the model risk area compared to insurance companies.

Risk culture has spread across the industry in the past decade

The feedback from our interviews regarding risk culture was entirely consistent with what we observe from around the industry more broadly. Many companies highlight that they have an excellent risk culture and view it as one of the biggest strengths of their ERM programs, although what that means for each individual company is quite varied and based on subjective views rather than on critical self-assessment or benchmarks per se.

In addition, the industry generally has made great strides over the past 10 years or so in establishing proper risk appetite and control processes and ensuring that there is clarity across the organization as to what the risk objectives of the company are and hence what is expected of each and every person across the organization from a risk perspective.

Having a strong risk culture is at the core of successful risk management, and generally the U.S. life insurance industry appears to be proud of what it has achieved in that regard. Best-practice companies have a culture that permeates the organization, from top leadership to frontline staff, effectively underscoring the importance of a comprehensive and integrated approach to risk management. This approach ensures that every individual within the company appreciates the significance of risk management and understands their role in upholding this discipline.

“Understanding the tail” underpins ERM programs

At the core of ERM is the practice of understanding the risks to which an organization is exposed in extreme event situations—in other words, exposures “in the tail,” outside the normal distribution of risks. Having such an understanding can mean that informed decisions can be made that not only support the solvency and financial health of the organization but also support more strategic decision making such as entering new markets.

Many respondents to our interviews see their ERM programs as providing the most added value when they help with understanding and managing in the tail. Sophisticated stress testing is seen as a major contributor to this effort.

One company highlighted how its risk management program was designed to understand the tail. It does daily tail scenario analysis for each of its business’ key financial lenses. This is all invaluable to support decisions around product design, investment decisions, acquisitions, and more. The company has what it describes as “integrated thinking”: Asset people understand liabilities, and vice versa. Additionally, they look at things from both a real-world and risk-neutral perspective, with each vantage point offering its own insights to the business.

Echoing the feedback from the interviews, the industry generally has made great strides in better understanding the tail, the heart of what ERM is all about, and more sophistication around stress testing has been a big part of that. We will discuss the type of stress testing being undertaken by the industry in section 8.5.

In recent years, U.S. risk practitioners have significantly advanced their comprehension of tail risk by embracing sophisticated stress testing. In years to come, we can also expect that more attention will be paid to enhanced data analytics to support these efforts, as well as exploration of the use of AI. This is also an area that regulators are increasingly paying attention to, which is pushing industry participants toward a proactive stance in identifying and managing potential extreme events.

Operational and strategic risk management

The life insurance industry has given special focus in recent years to operational and strategic risks, and for good reason—it is these risks that historically are the ones to shut down financial services institutions more than financial (or other) risks do.

A number of the companies we interviewed highlighted the importance of getting a good grasp on operational and strategic risk exposures. They highlighted that while progress has been made, continued improvements in the assessment and management of these risks are still needed and can be expected in the years to come.

One company stated that it would be shortsighted to say that its risk infrastructure is fully built out. Big strides have certainly been made, but the focus still has been on financial risks, and there is more to do on the operational side. Moreover: “We still don't have the size of the team we want, but we have hired leaders, and leaders will build teams.”

A couple of interviewed companies also felt they needed to improve how they were keeping on top of emerging risks by identifying and addressing them earlier. One company highlighted how it felt its key strengths are having a deep understanding of risks related to core business, and the measures in place to address these risks are very clear. However, one area of improvement is that second-line risk managers do not have much first-line exposure, so they are less aware of emerging risks.

Most medium and large U.S. life insurers now have dedicated teams working exclusively on operational and strategic risks, headed by a member of the senior management team who is responsible for assessing what the totality of the operational and strategic risks spectrum is, how the company is doing in monitoring and controlling the risk exposure, tracking the losses for each area of operational and strategic risk, and in some instances helping to quantify (i.e., put a capital number on) the risks falling under this category.

That said, despite these strides, operational and strategic risks score highly as an area for continued improvement, from the perspective of both better approaches to identifying the risk exposures and quantifying them.

We can expect to see a continuation of the trend that has been evident over the past few years with U.S. life insurers putting increased resources into operational and strategic risk management. It has been interesting to see how specialist teams have started to emerge who are looking at these risks separately, and it is a positive development to see deeper expertise being established in this space in the industry. Modeling and quantifying operational and strategic risks remain a challenge, and we might expect to see wider usages of techniques such as Bayesian networks and causal modeling, which can be very useful where there is little historical data to guide us.

8.3 EMERGING RISKS

Emerging risks are another area for improvement. In light of the experience of the past few years—a global pandemic, the war in Ukraine, the continued march of technology, and the risks associated with climate change—emerging risks have become top of mind at life insurance company board meetings. Indeed, CROs place emerging risks in their own risk bucket and identify, monitor, and provide commentary on these risks in their own right.

Risks posed by climate change

Climate risk has become the most talked-about emerging risk, but insurers continue to struggle with what this means. Not only are climate risk exposures a very real threat to life insurance companies, but investors, policyholders, and policymakers expect insurers to proactively address these issues.

Historically, life insurers have tended to view risks associated with climate to be more of a property and casualty issue and of less direct concern to the life market—in other words, the focus was on physical risk. However, with recent developments, not just with regard to the incidence of rapid climate change but also changing attitudes toward protecting the environment, this is a topic that is now very much top of mind for life insurers, particularly in relation to risks associated with the transition to a low-carbon economy.

One of the interviewed companies described how it now thinks about its company actions from a carbon footprint perspective. As asset managers for some clients, they are instructed to avoid certain investments, such as coal, tobacco, and firearms. They will not blacklist sectors as such but will have concerns if prospective investments have poor corporate governance. The client doesn’t want to get caught in the crossfire of political debate around environmental, social, and governance (ESG) investing. An overall recurring theme would be that they are “staying in the bleachers and not trying to be on the field.”

Another interviewed company mentioned that it had formed a climate change working group that meets quarterly. It hasn't made as much progress on the liability side of climate risk, but has made more progress on the asset side, at least in terms of developing tail-risk scenarios. It has created an ESG policy but has no specific goals yet.

Acknowledging that this has been something of a gap in policymaking, regulators are now very active in promoting discussion around climate risks—recognizing this as an essential area to address for best-practice risk assessment and management. In Bermuda, the BMA has published a Guidance Note[2] requiring insurers to carry out an overarching climate risk status assessment regarding the implementation of an appropriate Climate Risk Management Framework, with that framework and its measures to be adopted at or before year-end 2025. The BMA Guidance Note is also very instructive in giving clarity around how risks associated with climate change can manifest themselves in the context of a life company, including potential impacts on mortality and morbidity, and of course the potential impact on the insurer’s operations, such as disruption due to building closure.

Still, life insurers in the United States and Bermuda seem most focused on climate change’s impact on assets. Could certain asset classes become problematic for insurers as climate change becomes more of an issue—for example, oil stocks? What should the company’s position be on ESG investments, and is the company doing the right thing for policyholders, shareholders, and other stakeholders? These are highly topical and difficult areas that are getting increased attention right up to the board level, in particular as many large insurers have publicly committed to net-zero targets and have developed sustainability strategies to support these commitments.

In the past few years, U.S. life insurers have demonstrated a heightened awareness of the potential implications of climate change and have been proactive in re-examining their business model in this light and monitoring the associated emerging risks. As the industry continues to grapple with the evolving landscape of climate-related risks, we can expect to see a growing emphasis on sustainable and resilient business practices, innovative risk-modeling techniques, and a collaborative approach with policymakers to navigate the challenges posed by climate change in the coming years.

2 Bermuda Monetary Authority (March 2023). Guidance Note: Management of Climate Change Risks for Commercial Insurers. https://www.bma.bm/viewPDF/documents/2023-03-09-17-03-42-Guidance-Note---Insurance---Management-of-Climate-Change-Risks-for-Commercial-Insurers.pdf

Cyber security and reputational risk

Best-practice life insurers are constantly adapting to leverage the most up-to-date technology, whether to be more efficient in administering policies, facilitating new sales, or performing more advanced analytics to support decision-making. However, technology change, especially when it happens quickly, also brings some unique risk-management challenges.

For many years, cyber risk has been top of mind for U.S. life insurers, and many resources have been invested in managing that risk. Still, this continues to be a risk that is perpetually categorized as "emerging" because it is dynamic and continually morphs and evolves, taking on new forms over time.

One company we interviewed is pleased to have made significant progress on employee-based phishing tests and has been able to thwart attacks. Still, it expects to continue to be under attack, and so is constantly being vigilant and putting the right protections in place to have strong management of cyber exposures. It believes it has a good track record so far and a great team to manage that risk.

While most if not all insurers have some insurance in place to cover against financial loss from an adverse cyber event, all companies remain highly exposed to the reputational risk element of a cyber incident. One interesting aspect of this risk is the outsourcing of some administrative tasks to external parties; a cyber security issue at the external organization could create an additional layer of cyber security risk exposure, which is potentially orders of magnitude more difficult to manage than the internal technology risk exposure.

Technology change continues to create great opportunity, but with it comes increasing sophistication of cyber threats, posing dangers for sensitive data within the digital infrastructure of insurance companies. As technology continues to advance, the industry can anticipate a growing need for robust cyber security measures, hand in hand with regulatory frameworks that can be expected to evolve to address the unique challenges posed by cyber risks. (See Section 9 of this paper for discussion of risks associated with artificial intelligence.)

Investment risks stemming from new alternatives allocations

Some life insurers were blindsided by the unexpected increase in interest rates that started as we came out of the pandemic. They scrambled to assess the risks associated with the possible increase in policyholder lapse and the possible need to sell assets to meet cash demand at a time when asset prices were relatively low. Additionally, the industry's increased exposure to private assets in recent years has created some concern in terms of exposing the industry to investment risks that historically had not been its purview.

During our interviews we specifically asked about the emerging risks associated with the increases in interest rates over the past couple of years, as well as the risks associated with increasing exposures on the asset side to private (alternative) assets. However, unlike climate risk and cyber risk, somewhat surprisingly the interviewed companies did not express particular concern around these risks, generally feeling that they were on top of managing the risks associated with these developments.

A couple of companies highlighted concerns around emerging risks associated with real estate exposures, especially commercial real estate and office exposures. One company highlighted how important it was to have the right expertise to manage these types of investments, ensuring that they have the right exposures and managing accordingly.

Another emerging risk we specifically asked about was regulatory risk. This has been especially top of mind recently for companies with exposure to the Bermudian regulatory environment, in light of the planned and actual changes in that regime. One interviewed company said that as well as jurisdiction changes so far as regulation is concerned, another big area of focus for it had been how the tax code can and has been changing, for example around retirement plans. It maintains a very strong government affairs team to help manage this risk, and that team also has a strong voice within the American Council of Life Insurers (ACLI).

One interviewed company made the point that not all emerging risks are new, as such—for example, pandemics and inflation may be categorized as emerging but these are things we have seen before. That company also has in place an owner for each emerging risk. In addition to cyber risk, and concerns over increased sophistication of AI, it also raised HR risks as an emerging risk: in other words, the ability to hire and retain talent. It also tries to assign a dollar value to the impact of a given emerging risk, where it can.

How insurers are managing emerging risks

The feedback from our interviews echoes what we have seen more generally across the industry. As stated in the latest edition of the U.S. insurance industry-wide emerging risks survey published by the Casualty Actuarial Society and the Society of Actuaries,[3] climate change has consistently ranked as the #1 emerging risk in recent years, with cyber risk consistently at #2 or #3. It was displaced from #2 just this past year by wars, as summarized in Figure 8.2 from the survey.

FIGURE 8.2: SUMMARY OF TOP FIVE U.S. INSURANCE INDUSTRY EMERGING RISKS 2019-2022 PER CASUALTY ACTUARIAL SOCIETY AND SOCIETY OF ACTUARIES 16TH EMERGING RISK SURVEY

	2022	2021	2020	2019
1	Climate change	Climate change	Climate change	Climate change
2	Wars (including civil wars)	Cyber/networks	Cyber/networks	Cyber/networks
3	Cyber/networks	Pandemics/infectious diseases	Pandemics/infectious diseases	Disruptive technology
4	Financial volatility	Disruptive technology	Disruptive technology	Demographic shift
5	Demographic shift	Financial volatility	Financial volatility	Financial volatility

Source: https://www.soa.org/resources/research-reports/2023/16th-survey-emerging-risks/

Emerging risk is sometimes defined as a separate category in a company's risk register, with a group of people who have responsibilities for monitoring and reporting on emerging risks, and in some cases an emerging risks committee that meets frequently. The spirit of this is to set up a separate risk class so that it is specifically tracked and monitored.

The following are some other examples of procedural aspects we have seen life insurers put in place to keep on top of emerging risks:

- Organizing internal brainstorming sessions on emerging risks.
- Creating a "Top 5/Top 10 list" approach, where an attempt is made to identify the potentially most significant emerging risks and try to gauge their financial impact should they occur. Part of this exercise can be to derive certain "event scenarios" reflective of an emerging risk materializing, and to look at the impact on earnings, capital, and liquidity should such an event occur.
- Use of an "emerging issues log," with ongoing formal reporting for each issue on the log.
- Analyzing potential risks that could hit in the next 12 months.

We can expect to see the life insurance industry continue to ramp up its efforts to address the emerging risks associated with climate change and ongoing advances in technology. In addition, as tomorrow's emerging risks represent the "the unknown unknowns," insurers are likely to devote more focus generally to being able to identify and act on emerging risks. Moreover, with a continual need to quantify the impact of such risks, we can expect to see wider applications of Bayesian and behavioral modeling techniques, which can be extremely valuable in quantifying risks where there is very limited (if any) historical data.

8.4 ECONOMIC CAPITAL

For the past two decades, U.S. life insurers have invested considerably in exploring and implementing an internal view of required capital—what is generally labeled EC. While in theory there are benefits to a company having its own view of the risks to which it is exposed and the funds needed to cover long-tail exposures, the industry has had mixed experiences in getting traction on the use of EC. For example, EC can be an expensive number to calculate, and there can be issues with the timeliness of producing these numbers. A frequent question that comes up is: If a company has to hold STAT capital in any case, what is the justification for doing an EC calculation? Are life insurers in the U.S. today running successful EC programs, and if so, what are they doing to get buy-in and widespread usage?

3 Rudolph M. (June 2023), 16th Emerging Risk Survey. Casualty Actuarial Society and Society of Actuaries Report. Retrieved January 7, 2024, from https://www.soa.org/resources/research-reports/2023/16th-survey-emerging-risks/

Mixed views on the usefulness of EC programs

EC has its cost benefits, but its value-add has come under scrutiny in recent years after decades that saw U.S. life insurers pump considerable sums into building out such programs.

From our interviews it was clear there are mixed views on EC. One of the companies we talked to was very clear that its focus was on looking at the economic *value*—not economic *capital*—of the enterprise, which measures the present value of asset and liability cash flows (an "embedded value" approach). From a capital perspective, the company must hold STAT capital regardless and ensure that valuable resources are focused on the right measures to achieve overall corporate objectives. Thus, this company has no plans to calculate and monitor an EC number.

Another company described how for years it had considered EC from an academic perspective, but it has struggled to establish a practical application to do this and make the outputs usable. A lot of times EC said the company was over-capitalized on an economic basis; however, leaders felt the rating agencies wouldn't allow holding this lower level of capital without a downgrade. Ultimately, and similar to the company previously mentioned, its preferred "economic" metric is appraisal value, which is based on the present value of distributable earnings and includes realistic estimates of new business volumes. It has been employing the "value of new business" metric using distributable earnings as the basis for several years, based on organic capital in the first year and the future cost of capital.

Another company said it didn't have internal capital metrics, but its capital calculations are purely STAT-based. The company is actively looking at potential acquisitions, so it considers capital capacity, but that is all from a STAT perspective. That said, it has considered EC for its variable annuity product line—because GAAP and STAT can vary widely—but the block is not large enough to merit too much analysis (it mentioned it was an interesting idea, but not a priority).

Another company that said it focused on STAT capital and didn't have an EC model stated that having an internal EC model wasn't even a discussion item. For diversification, it just uses RBC for the U.S. business and BSCR for Bermuda.

Among the companies that do have an EC model, getting more usage appears to be a widespread issue. One company said it was in the process of getting EC more widely used than it is today. The EC number includes market risk, credit risk, and underwriting risk, and the company is starting to look at it more closely, but the question remains: What does it mean? EC is beginning to be one of the lenses; the number is shared with the board, but so far, it is rarely used in the business.

Finally, as a general point, while we don't see differences in the attitude toward EC by size or business complexity, and whether publicly listed or mutual, we do see less emphasis placed on the metric and its usefulness by companies with an investment management or PE firm ownership.

Challenges with EC implementation

From our broader industry research and discussion, it is clear that even where EC programs are in place and getting some usage, EC implementation is still far from perfect.

The processes around producing internal capital results almost always lack efficiency and timeliness, which is a significant impediment to broader usage of EC for driving management decisions. Associated with this, a recurring message from CROs is that they would like to see more sophisticated internal capital analytics (e.g., on-demand stress testing) produced much more quickly.

Moreover, the cost associated with calculating an EC number isn't just one of staffing and computing resources to produce the numbers, but also an opportunity cost in potentially crowding out senior management's focus on other metrics that are more important.

For many companies, the internal capital process is a once-a-year exercise, and a recurring theme is that more time is spent calculating than analyzing the numbers.

While certain advanced analytics—notably risk decomposition (i.e., capital required by risk type) and the analysis of change in available and required capital between valuation dates—are being produced by the best-practice companies, this is still a time-consuming exercise, and the analytics can be somewhat stale by the time they reach senior management review. Thus, there is a limit on how effective these analytics can be in helping to make strategic decisions.

Analytics around capital allocation are generally not very sophisticated. Most companies will use a very simple pro rata approach to allocating capital, although some consideration is beginning to be given to more sophisticated approaches, such as methodologies that give credit to a line of business for the diversification benefit it has generated.

Many in senior management also make reference to having the ability to do “on-demand” stress testing on actual and required capital, although we are not aware of any insurers that have this in place yet.

Overall, companies use a variety of capital and reserve measures, with some using an internal version of EC and others focusing on STAT or GAAP measures. The use of EC varies among the companies, with some using it to manage the business and others not using it. The decision-making process for capital allocation also varies among the companies: Some have a formal process, while others make decisions on an ad hoc basis.

The success factors for the use of EC vary among the companies. Some companies indicated EC provides a benefit of improved comparability of different businesses on a similar basis, with assumptions developed for consistency. However, some indicated concerns in understanding EC and that EC can move a lot with small changes in assumptions.

Some companies indicated they calculate EC but don’t use it enough for management decision-making purposes; the reasons they cited were that other formal accounting metrics win out (even though they indicated they believe that EC should have higher standing in the decision process), and that EC is mainly used as a guard rail.

Another impediment to success is being able to get results out quickly so they are genuinely actionable, and in that regard the key to getting internal capital calculations and associated analytics up to speed is an investment in technology. Many insurers are hindered by trying to do internal capital within an already existing projection platform or variety of platforms, perhaps piecing together outputs from different systems using spreadsheets, with much of the process manual and prone to error. Using inappropriate technology and asking internal actuaries to develop ERM tools often leads to bottlenecks and non-scalable solutions.

Other companies indicated that they do not use EC at all. For those companies that do use EC, the analytics performed around EC vary: Some use it for performing analysis of change or risk decomposition analysis, while others simply use it as a target capital metric.

8.5 RISK ANALYTICS

Historically, there may have been a tendency within the life insurance industry to inundate senior management and the board with copious amounts of information and numerical data, creating something of a “can’t see the forest for the trees” scenario. Now, reporting best practices emphasizes the importance of directing the attention of top-level executives toward the most critical issues, delivering information and numbers in a way that is concise, readily understood, and actionable via dashboards. It was clear from our interviews that the industry generally believes senior management and the board receive the information they need to understand their organization’s risk exposures, that they are getting that information on a timely basis, and that they are getting the information needed to support strategic decisions.

Widespread use of risk dashboards

Nearly all of the interview participants noted that the core of their enterprise risk reporting is a senior management dashboard. This tool contains a high-level status summary of risk management across the organization and is typically distributed to senior management and, usually, to the board of directors. The dashboard tracks a company’s performance relative to its risk appetite, thereby identifying how the company is faring relative to its risk limits and risk appetite. The monitored metrics may be risk-specific—e.g., duration for interest rates—or enterprise-wide, e.g., enterprise EC.

That said, there was some variation in the detail and size of the risk dashboard among the companies we interviewed. One company said its risk dashboard is produced quarterly and is a very detailed document. For each broad risk category there are potentially several pages of analysis and narrative, depending on how the risk is emerging or changing, such as risk reporting related to the war in Ukraine.

Another company highlighted how risk reporting and the associated risk discussion need to be a dynamic process. For example, when the recent banking crisis hit, senior management needed to look at some new types of risk metrics and were meeting three times a week. “It was all hands on deck,” our participant said.

A couple of interviewed companies emphasized how their risk reporting is not merely a check-the-box exercise. One company emphasized that "we need to, and are, focusing on the right things."

In terms of what risk metrics are shown in the dashboard, one company mentioned looking at risk metrics around business processes and talent: "These are new metrics and evolving in terms of sophistication and understanding."

Another company gave an example of the impact that effective risk reporting can have. Specific to cyber risk, that company had recently performed a phishing exercise around the firm and did not like the results: There were too many click-throughs that shouldn't have been made. After that test, it decided to take certain actions, which vastly improved outcomes. This is an example of where simple risk reporting can have a major impact.

Traffic-light approach to risk urgency

From our observations around the industry, the overall structure of risk dashboards is quite standardized across companies. It typically starts with the risk inventory—the company's key risk exposures—and then provides a quantitative assessment of the actual exposure against limits for each risk, and/or a verbal commentary on the position. Companies also typically use a traffic-light approach, where each key risk exposure is assigned a red, yellow, or green indicator based on how that risk currently measures relative to its risk limit. The risk dashboard would also articulate specific actions that are being taken, or planned, to address any risks that are shown as yellow or red, with indication as to which person has responsibility for any remedial action.

While we observed quite a high level of commonality in the format of dashboards where the traffic-light approach is used, the amount of detail and backup information accompanying the dashboard varied considerably across companies.

Companies that do not prepare a formal dashboard typically have only a handful of very key risk exposures and tend to focus on more detailed reports to management on these specific risk areas. In such cases, not producing a risk dashboard per se does not mean a board risk package is not produced.

Operational risk positions tend to be reported more on a narrative basis rather than quantitatively, as is typical for the majority of market and insurance risks. There may also be additional qualitative lenses important to a company, such as market reputation, and again these are usually reported in a narrative, although some objective assessment can be made in some areas (e.g., no adverse press/publicity, good staff retention levels). Additionally, it is quite common for companies to include a standing commentary specifically on the cyber security position in the narrative report.

The very nature of a traffic-light dashboard has a rather unfortunate "traffic cop" connotation and thus suggests that it falls more on the compliance end of the risk reporting spectrum rather than offering something strategic. To overcome that, the best-practice reports will focus the narrative on the issues and how to address them.

In general, in recent years U.S. life insurers have made great strides in developing risk dashboards for board and senior management use, enhancing decision making with concise and actionable insights. Future improvements in this area may involve increased integration of advanced analytics, AI, and real-time data processing to provide even more accurate and dynamic risk assessments.

Stress and scenario testing

Stress testing for life insurance companies is crucial, as it helps assess their financial resilience under adverse scenarios. But more importantly, being able to perform this type of analysis quickly and as part of the toolkit for making strategic decisions can become a source of competitive advantage.

In addition to the risk dashboard, a number of the companies we interviewed noted that they have increased both their focus on stress testing and the results of these tests in their risk reports.

We asked interviewees whether a few years ago they had anticipated the potential for a pandemic or a war, or a combination thereof, and a number responded that their stress testing work had certainly picked up scenarios that captured the impact of these events on the company's risk exposures.

One of the interviewed companies highlighted how embedded value is a key metric for their business. It performs extensive stress testing around that metric and monitors that information internally; it also shows those numbers to the regulator.

As the tools and technology to understand tail risk exposures have improved in recent years, increasingly the focus of risk management reporting has shifted from looking at relatively simple metrics such as asset-liability duration for interest rate risk to reporting on the results of more sophisticated analysis, in particular stress testing. Best-practice companies will look at how the business is faring under stressed environments according to multiple financial lenses, including GAAP, STAT, and economic.

Historically, stress and scenario testing has been something of an ad hoc exercise in the industry. Today it is a much more formal, ongoing process, which is indicative of the central role it plays in communicating risk matters. The relative simplicity of stress and scenario testing means that the highest level of management can get involved in deciding what scenarios to test. Indeed, in some instances, board-level input is brought into the process.

Today's focus is very much on the practical level, and targets, for example, scenarios that are realistically plausible instead of spending excessive time on scenarios that have an extremely low probability of occurring. Companies identify such scenarios as being especially useful for generating management discussion and for planning strategy.

A very wide variety of testing is now being done, ranging from individual single-risk stresses to complex "combination scenarios," where various risks going the wrong way may be tested simultaneously. Reverse stress testing is also becoming popular as a means to identify the types of situations that could lead to risk tolerance breaches or a certain amount of financial pain (for example, what does the stressed environment look like that could lead to a breach in a liquidity threshold?).

While the development of increasing attention being paid to stress and scenario testing is consistent across the industry, in the area of investment or asset stress testing we do see some differences in the degree of rigor between the "acquisition-tilting" firms and the rest of the market. In particular, companies with investment-management or PE firm ownership, with relatively high exposures to more specialist investment categories, have by necessity had to build out highly sophisticated investment risk stress testing processes, more so than the rest of the industry.

We believe that insurers that are not performing sophisticated stress testing, and are perhaps using outdated and slow projection models, are going to find themselves at a competitive disadvantage and will fall behind as others in the market have access to better information on a timelier basis. The increased ability for stress testing in an effective and time-efficient manner is going to be more important in these times of increased volatility and uncertainty, and will be vital to making quick decisions, managing risk, and driving strategy.

8.6 CONCLUDING THOUGHTS

Even for smaller insurers, having some centralized or dedicated risk function or person within the organization overseeing risk management from an overall, company-wide perspective, should be viewed as a best practice. Indeed, in certain jurisdictions, such as Bermuda, it is an expectation that irrespective of company size and business complexity, there will be a dedicated risk manager overseeing the risk function for the local entity.

Having a dedicated risk function also helps engrain a strong risk culture into an organization—another tenet of ERM best practice. Companywide risk awareness permeates most of the firms we interviewed and in best-practice companies underlies decisions at all levels. More generally, across the market, U.S. life insurers view their "risk culture" as a major strength of their risk management programs.

Generally, the industry would like to improve its processes for getting an earlier indication of unforeseen risks that are emerging, so that it can gauge the impact and take remedial action quicker. That said, for some emerging risks there can be something of a "head in the sand" or "that isn't relevant to us" mentality. Climate risk is a case in point. While climate risk has today become the most talked-about emerging risk, insurers continue to struggle with what this means for their business. It seems that not only do individual companies need to be doing more in their risk assessments in this area, but also the industry more generally. Some progress seems to have been made assessing risks on the asset side, but there is less understanding of the demographic and operational risks. Moreover, even for companies that believe their asset-liability profiles do not expose them directly to climate change, there are uncertainties over potential government or regulatory actions related to such.

Best-practice companies, from a risk management perspective, are being effective most notably in the following areas:

- Widespread use of risk dashboards as a communication tool across the organization
- A stress and scenario testing that program suite that brings board and senior management input to the process
- If EC is being calculated, a clear appreciation across the company as to why it is important and how it can be used to add value (with reference to whatever metrics are most important to the corporation)

9. Systems and data

9.1 TRANSFORMATION

In this section we examine if and how companies have undertaken actuarial and financial transformation (or modernization). We focus on systems transformation but also look at wider business and strategic aspects, such as structural, process, and HR changes. While the term "transformation" is common across the industry, it is also in the eye of the beholder and can mean something quite different from one company to another.

Many recent transformations spurred by LDTI

The world in which we live is in a constant state of change, and life insurers do not stand still. Accordingly, company strategies and business objectives change, and new and more efficient ways of doing things emerge. Thus, for many companies, the concept of transformation is more "dynamic transformation" or "progressive transformation."

All companies we interviewed said in recent years they had performed, or were in the process of performing, a transformation of some sort; for some, this meant emphasizing the systems side of things, and for others it took on a wider scope. A number of insurers also said that while big systems conversions were not something they would propose to undertake frequently, they viewed transformation as something that was a permanent fixture as they were continually appraising their business model and the tools available to help them achieve their objectives, with a view to always being best-in-class from an operating perspective.

One company described its transformation as ongoing, episodic, moving stop and go. For that company, and for a number of others we interviewed, the original catalyst for transformation was U.S. GAAP LDTI. For LDTI, these insurers wanted to get everything onto a common platform, and given the huge scale, as well as new data-management and processing requirements involved with LDTI, they needed industrial-strength technology to perform actuarial modeling and produce information in a consistent way across the organization.

Another company's representative said the firm didn't believe in major, large-scale transformations. However, it very much believed in constant improvement, indicating more of a tactical approach. That said, to meet the requirements of LDTI, it had engaged in an actuarial systems conversion, which has been a multiyear initiative. A side benefit of that work has been to challenge certain processes unrelated to actuarial systems. For example, it has revisited the need for certain reinsurance agreements.

Transformation can be a one-time event or an ongoing process

Across the industry, transformation is a term used to denote something that involves a significant and comprehensive change in the way a company operates. It often refers to technological change in the areas of policy and claims administration, or finance and actuarial; sometimes it is broader in scope and involves people, strategy, culture, and even the core business model.

Whether a transformation is a one-time event or an ongoing process can vary. Some transformations are initiated in response to specific challenges or opportunities and are designed to achieve a particular set of objectives. On the other hand, in a broader sense, many organizations adopt a mindset of continuous improvement and evolution. In this context, transformation becomes a continuous journey, where companies are constantly adapting to changes in the business environment, technological advancements, and customer needs.

Whether a transformation is a one-off process or an ongoing evolution depends on the specific goals, circumstances, and strategies of the company in question. Companies that embrace a culture of adaptation and innovation may see transformation as a continual process.

Mixed results of transformation projects

Transformations can involve considerable time and costs, often spanning many years and millions of dollars. But, of course, there is the other side of the coin, and successful transformations can reap huge rewards. It is therefore imperative for companies to have clearly defined criteria for success: What constitutes a positive return on a transformation initiative, and over what timeframe? How has the industry fared in this regard? What has gone well, what has gone less well, and what lessons have been learned?

Feedback from the interviews revealed a mixed bag of experiences. Some noted successes, while other companies observed less-than-stellar outcomes, although they were not necessarily deemed failures. Even where companies viewed their transformations as successful, there was acknowledgment that more work was to be done, reflecting the view that transformation is often a dynamic process.

On the positive side, one company said it had largely achieved all the original goals of its transformation initiative. The narrow impetus for the project was LDTI, but the broader reason had to do with technology. This company already is quite large but plans to become even bigger and so needs to correctly adopt new technology that is scalable. This insurer has built a strong foundation on the actuarial side, starting with effective data management, and now has 90% of liabilities going all the way from source data to journal entries in a straight-through process. It is not quite 100%, but it is very close. The company wants to build on this solid foundation and ultimately reach a place where it has a single repository for all investment, stat, and GAAP data; it also wishes to expand the transformation to cover the boarder finance side, including a general ledger upgrade. Furthermore, it plans to continue to improve its processes surrounding controls and automation. Because it relies less on staff to do largely manual and repetitive processes related to systems and technology, its people have been empowered to do more value-added work. This has been a source of staff growth and the company's overall success.

Another of the interviewed companies was four years into a transformation motivated by outdated actuarial technology that was preventing it from performing certain tasks, such as scenario analysis. The firm hired a consultant to move it onto a new platform, which offered many benefits, including access to more data and insight. Early on, the company received buy-in from senior management, along with engagement from employees at all levels, which made the entire undertaking much easier. The processes are still developing—today the company is overhauling its administration system and is more widely using the cloud. It also rebuilt its actuarial team, changing some roles and retiring some functions to better support business objectives.

Other companies reported to us that they were less satisfied with the outcomes of transformation projects, at least so far. One company mentioned that in 2017 it had undertaken a finance modernization project to replace the general ledger. There were no obstacles to getting buy-in, as the firm needed to replace a very old system, even though this meant a huge change in technology and user experience. However, in the end it felt it did not get all the benefits it had expected. There has been a high maintenance cost, it is harder to make changes than it had thought, and reporting is less flexible than anticipated. Moreover, the system architecture is more complicated than expected. And even though the modernization was intended to eliminate manual work, staff effort in this area has actually increased. Everything is stable and works, but the user experience is challenging. If it had this project to do over, the company might slow down the process and do more due diligence before beginning.

Another company said it was currently in the process of a large-scale actuarial transformation, and still somewhat away from realizing the full benefits of the investment made. It had already launched a new technology platform for finance, using it for budgeting and forecasting. Actuarial is now coming into the mix. This insurer is not a public company, so it has yet to go live with LDTI but will do so in 2025, now making this transformation a big priority. LDTI brings an additional layer of required rigor around controls, enhancement, and automation, and the firm is still in the middle of it. Ultimately, the company will align the technology with the people skillsets, but that is a longer-term initiative. For the foreseeable future, the transformation is creating plenty of work across the company. It is also still figuring out what the value-added activities are or could be.

Requirements for a successful transformation project

A common driver of transformation across the industry is the desire to free up valuable, specialized staff to perform more value-added activities instead of performing mundane, manual work that could be more efficiently be handled by technology. To a large extent, our feedback from across the industry is that companies have been quite successful in this regard. However, as reflected in the feedback from the interviews, there are some areas where the process has been bumpy.

While the imperatives for undertaking a transformation will differ across organizations, in our experience there are a number of requirements for success:

- Visionary leadership
  - There has to be an appetite and enthusiasm for change that comes from the top of the organization: someone, or some people, with the drive to make transformation happen and be successful.
  - Moreover, that visionary leadership needs to be backed up with a clearly defined vision and strategy behind the transformation that aligns with the company's goals.
- Engagement and communication
  - Transformations create change and uncertainty, and there is unlikely to be a universal acceptance of the need to change. Engaging key stakeholders and decision makers in the business to create a common, well-articulated vision is fundamental.
  - Consistent and regular communication with the project team and business will help maintain the vision and commitment and move the project to its conclusion.
- Resourcing
  - As far as possible, key resources should be retained throughout the project. This will build employee skills and boost the project's momentum.
  - The company must ensure that there are sufficient resources to deliver the transformation. Typically this is underestimated, and additional resources are often needed as the project progresses.
- Flexibility and nimbleness
  - Any project that takes more than a year will need to adjust to changing circumstances. In our experience, an agile approach with regular replanning results in a better overall outcome.

The success or failure of a transformation can be highly specific to the company, and what may have worked well for one company may not necessarily be the recipe for success in another. Moreover, the life insurance industry also faces unique challenges such as regulatory compliance, data security, and customer trust, which further complicate transformative processes. One thing is for sure: We can expect to see continued vigorous transformation activity across the industry for the foreseeable future.

9.2 DATA

In this subsection we discuss innovations in how U.S. life insurers are using data—in particular, artificial intelligence (AI)[4] and data analytics. The developments in these areas are fast and potentially could have huge ramifications for the industry. How are companies keeping pace and investing in these areas?

U.S. life insurers struggle to identify how AI can help their business

AI and machine learning may have been something of a passing intrigue just a year or two ago, but they are now a hot topic at the family dinner table and are starting to have a dramatic impact on our everyday lives. It is natural for life insurers to examine how these new advancements could impact their businesses, whether from a defensive perspective in how they could pose threats to the business model, or from a more proactive perspective in enabling companies to more efficiently run their business and hence gain a competitive edge.

All the companies we interviewed indicated that they were actively looking at AI; in some cases, specialized teams had been set up to keep abreast of AI developments and explore its potential risks and opportunities. However, while some interviewed companies said they were using AI to some extent in their business applications, especially in supporting the marketing side of the business, none of the companies felt they were anywhere near a stage where they had fully tapped into AI's potential, which has become all the more complicated by how quickly new developments in the field are emerging.

4 AI refers to the development of computer systems that can perform tasks that typically require human intelligence, such as learning, problem-solving, language understanding, and perception.

One company described how it has an AI team, split into “traditional AI,” which includes machine learning,[5] and “new AI,” which includes generative AI[6] and large language models (LLMs).[7] Traditional AI is most used for sales applications and to some extent in marketing for lead generation, claims severity modeling, customer segmentation, and investment portfolio management. At this company, the new AI team was established just last year, and only recently has started to feel that it has a way to stay on top of new developments; but things are moving so quickly that this remains a challenge. The work with LLMs is focused on customer interactions, specifically through chat and email, which are used to address customer pain points and then assign the most qualified person to respond; in this way, while AI may be able to handle basic inquiries, for anything more complex ultimately a human must be involved.

That same company also highlighted how AI needs data, and in the life insurance world that can be a major restricting factor and may explain why usage so far has been somewhat limited. This company does have a large-scale initiative in place to consolidate data and try to improve its quality.

On the actuarial side, this company also felt there would be a long transition to AI and expects that the tool will ultimately supplement rather than replace traditional approaches.

Another company said it didn’t necessarily want to be a leader in the AI space—while it doesn't want to be left behind, it also won't be in front. AI may be able to make better use of company resources, but how to do this remains to be seen. This company currently doesn’t have an AI-dedicated team, but that is being considered for the near future.

One company did mention on the actuarial side that it had had some traction with AI for experience studies, where machine learning is used to analyze policyholder experience, specifically to provide insights to the propensity of an annuity policyholder to surrender and what might drive that.

Another company said its use of AI was primarily to help software and system developers with code changes, but so far, the technology hadn’t been used for analyzing data. This did seem like an area for potential, and investment was being made to look into this more. That said, another topic of much debate was data security concerns, which could prove to be a significant limiting factor on AI’s use.

Successes and limitations to using AI across the industry

The feedback from our interviews aligns closely with what we see more broadly across the industry in terms of the challenges and progress seen in the implementation of AI. While there has been some excitement about AI’s potential benefits, the industry has faced several hurdles in its widespread adoption.

Areas where the industry has seen some success include:

- Enhancing sales and marketing activities, including lead generation, customer segmentation, personalized marketing campaigns, and chatbots for customer interactions
- Supporting underwriting processes by using machine learning algorithms to assess risk more accurately
- Fraud detection via analysis of large datasets and patterns to detect anomalous behavior than might include fraudulent claims or policyholder applications

Limiting factors to more widespread use of AI in the industry so far include:

- Data quality and availability, including outdated or incomplete data
- Regulatory and compliance challenges—adopting AI raises concerns related to privacy, fairness, and compliance with existing regulations
- Systems limitations, in so much as legacy systems and disparate data sources may hinder the smooth integration of AI solutions into existing workflows

5 Machine learning refers to a type of AI focusing on systems learning from data to improve their performance over time. It is different from generative AI which emphasizes the generation of new and original content.

6 Generative AI refers to a type of AI that has the ability to generate new and original context, such as images, text, or other forms of data, often through learning patterns from existing datasets.

7 Large language models are a type of generative AI with a focus on text generation. LLMs are AI systems that process and generate human-like text by learning patterns from vast amounts of diverse textual information (language data) extracted from books, websites, articles, etc.

- Lack of understanding and expertise, in that implementing AI successfully requires a deep understanding of the technology, and there is currently a shortage of skilled professionals within the industry
- Trust and explainability, in that AI models, especially complex ones like LLMs, often lack transparency, making it challenging to get buy-in to widespread usage, especially at the senior management level

Despite the challenges, the industry continues to explore and invest in AI solutions. Overcoming the obstacles requires collaboration among industry experts, regulatory bodies, and technology providers to establish standards, address ethical concerns, and develop strategies for successful AI integration. As technology and understanding evolve, it's likely that more areas, including actuarial and claims administration, will see increased AI adoption in the future.

Limited use of predictive analytics

Efficient use of data is at the core of what a life insurance company does, and for many years there has been much activity around predictive analytics, which in its broadest terms can be thought of as using statistical algorithms to predict the likelihood of future outcomes based on historical data. It is a form of machine learning, or "traditional AI," as it implies use of data at face value to make predictions, as opposed to the new generative AI that can generate new and original content.

Actuarial work has always used predictive analytics of some sort—for example, in assessing expected mortality using experience data. However, today "predictive analytics" is more associated with using potentially vast amounts of data to identify patterns and relationships and make predictions. Going back five to 10 years, there was tremendous industry excitement surrounding the potential of predictive analytics, similar to what we now see with AI and machine learning. But has that potential actually crystalized?

Our interviews revealed a mixed bag in terms of the use of predictive analytics and how successfully companies feel they have been adding value with its application.

One company said it had achieved meaningful successes with predictive analytics in a number of areas, including underwriting and operations (claims, NB, and the call center). On the actuarial side, there was some use of predictive analytics for assessing and analyzing mortality and policyholder behavior and using that information to help set assumptions or even to enable models to run more quickly.

That said, the more general feedback from the interviews was that not a great deal has been achieved with predictive analytics up to this point. One company said that of course it was always looking for ways to make its modeling more efficient, and as part of that it has a team that is currently analyzing whether predictive analytics can be used to assess policyholder behavior. However, it is not quite seeing tangible results or planning to implement predictive analytics in any particular applications.

Barriers to widespread adoption of predictive analytics

Across the industry, while five to 10 years ago there was significant excitement and anticipation around the potential of predictive analytics in the life insurance industry, the widespread adoption and transformative impact has not quite met initial expectations. There have certainly been some success stories in using predictive analytics to support underwriting activities, and in supporting the setting of some actuarial assumptions for product pricing, such as policyholder behavior, but the applications have still been relatively modest.

The barriers to widespread application are similar to those described earlier surrounding the current adoption of AI more generally. Clearly, data quality and availability are huge factors, and it is certainly true that getting the level of detail and the requisite quantity of high-quality data has been challenging for many companies, and indeed the industry more generally. That said, some advisors to the industry have had success in collecting a wide body of useful data, and there have been some life insurers who have tapped into that successfully for not just underwriting and actuarial applications but also to support marketing and targeted sales initiatives.

It is important to highlight that while the explosive growth might not have materialized as quickly as anticipated, many life insurance companies continue to explore and invest in predictive analytics. As technology matures, and the industry becomes more comfortable with these tools, we can expect to see a broader and deeper integration of predictive analytics in various aspects of the business. Additionally, ongoing advancements in technology, including AI and machine learning algorithms, can be expected to increase interest in the use of predicative analytics in the future.

9.3 CONCLUDING THOUGHTS

As insurers seek to modernize, they have seen mixed results. In practice, key ingredients to success include having a visionary leadership to drive from the top, ensuring engagement and communication across the organization, ensuring that there are dedicated and sufficient resources to deliver on the transformation, and having an agile approach that recognizes that any project that takes more than a year will need to adjust to changing circumstances.

As technology continues to evolve and change our world, we can expect to see modernization and transformation as a permanent, continual improvement process for life insurance companies. Clearly insurers that are able to understand, adapt to, and exploit the incredibly rapid developments and innovations in AI are going to be able to grasp a huge competitive advantage. Some companies are already investing significantly in this area; those who do not will fall behind.

That said, the (not new for the life insurance industry) issue of quality data currently remains a very significant barrier to life insurers widely adopting AI (and predictive analytics). If and when we start to see significant breakthroughs in the issue of data quality, a brave new world for the industry can be expected to unfold before us.

10. Bringing it all together: Holistic management

The information collected in the prior sections is organized into broad topics based on 25 interview questions provided in the Appendix. While we described a series of observations for each topic along with some specific practices that we believe could be helpful in a company's balance sheet management, this paper was inspired by the desire to understand how companies manage their balance sheet holistically. Therefore, we thought that identifying profiles across the responses to all the interview questions might also be useful, and we present those here.

10.1 PROFILE DEVELOPMENT APPROACH

We set out to bring together company *characteristics* and the resulting *attributes* of the decision making as follows.

Characteristics

- Ownership structure: mutual, public, private
  - Current
  - Previous
- Company history: from well-established firms to newer organizations
- Size: from relatively large to relatively small
- Business acquisition type: insurer and reinsurer
- Group structure
  - standalone companies
  - subsidiaries of foreign public or private organizations
  - subsidiaries of domestic public or private organizations

Attributes

- Primary goal orientation
- Length of planning horizon
- Metrics bases
- Nimbleness
- Technological adaptability
- Investment approach
- Risk management culture and inclusion in decision making
- Business generation
- Offshore exploration
- Parent company influence

We considered the following stakeholders during our research:

- Investors
- Policyholders
- Employees
- Shareholders
- Regulators

While this list is not complete and in some cases the views overlap, we chose these perspectives to help differentiate company decision-making processes. This list also enabled us to identify three theoretical management approaches:

- Acquisition-tilting
- Service-tilting
- Innovation-tilting

Note that tilt does not mean other aspects are not taken into account; rather, there is a noticeable tilt in the decision-making process.

Below we describe generic portraits by profile of tilt. ***Because this is a general picture, no company fits exactly within the constraints of one profile***. There are reasons that each company has chosen its own approach to decision making, but understanding the fuller spectrum of various practices could help each company make better-informed decisions.

10.2 THEORETICAL PROFILE 1: ACQUISITION-TILTING APPROACH

Acquisition-tilting companies have a significant part of their business model driven by inorganic growth. The history of the companies we interviewed ranges from a few years to multiple decades. These companies often take advantage of the expertise of a parent company or investors and work with them throughout the business lifecycle on a variety of matters.

The main goals of such companies are to sustain a long-term value creation and to provide a stable stream of dividends to their parent companies or investors. Other strategic goals include risk diversification and business growth.

Acquisition-tilting companies operate with simplicity in mind, and their planning process tends to favor the long-term view and focus on a small number of metrics. STAT views appear to dominate, although GAAP is important for companies with public parent organizations. Economic view is also considered by some, though it tends to be simplistic. A rigorous EC framework is rarely, if at all, considered. One surveyed company is undergoing a deeper analysis into a holistic review of capital structure, sources, and efficiency. Using a limited set of metrics speaks to a focused approach; however, additional metrics, if considered, may shed light on other aspects of the business.

Acquisition-tilting companies tend to be nimble and make quicker decisions, which are sometimes attempted in collaboration with the parent or investors. Parent companies or overseeing investors appear to lend their expertise where applicable and get involved in company operations, though parent companies are often hands-off except for governance and group-related activities while investors are more hands-on. This may be a function of how the company was formed or acquired. Likely for historical reasons, technology burden seems to be less prominent among all the surveyed companies in this category.

From the staffing perspective, the approaches appear to be culture-dependent, but these companies generally tend to be on the leaner side (and further, smaller or newer companies are leaner than bigger or older companies), with many traditional insurance company functions outsourced. Organizationally, top management appears to be well aligned with the business units.

Risk management culture is embedded in decision making, though the assigned personnel vary from almost no dedicated staff to significant staff, likely for historical reasons. Where dedicated personnel exist, there is generally less formality to the enterprise risk management function. In one instance, we inferred that the audit function is part of risk management, which is not consistent with the formal three-lines-of-defense model. In another instance, the head of risk management does not report to the CFO or CEO. But in the spirit of simplicity, a lean structure takes priority over formality. Some acquisition-tilting companies appear to do deeper and more frequent risk analysis than others we surveyed.

The formal strategic asset allocation process of acquisition-tilting companies is either absent (which speaks to the informality of the approach) or is reviewed frequently (which speaks to nimbleness). Their approach to investments tends to be on a relatively simple side, though of all the companies surveyed they would be more inclined to venture into exotic asset classes to optimize their risk-return profile. Liquidity appears to be on at the top of their minds, and they have many tools at their disposal, not the least of which are their parents or investors, should the need arise.

The focus of business generation leans toward inorganic growth, and the acquisition-tilting companies do not generally see themselves as product innovators. With respect to offshore operations, we did not detect an overall theme. While some participants do not have offshore operations and do not plan to open them, some are either active offshore or are looking to expand operations and evaluating specific jurisdictions. Business complexity and objectives may be the chief reasons for this dichotomy. With a focus on inorganic growth, acquisition-tilting companies may pay lesser emphasis on the development of new products that their customers may want, though this is less pronounced in the case of business assumed through reinsurance.

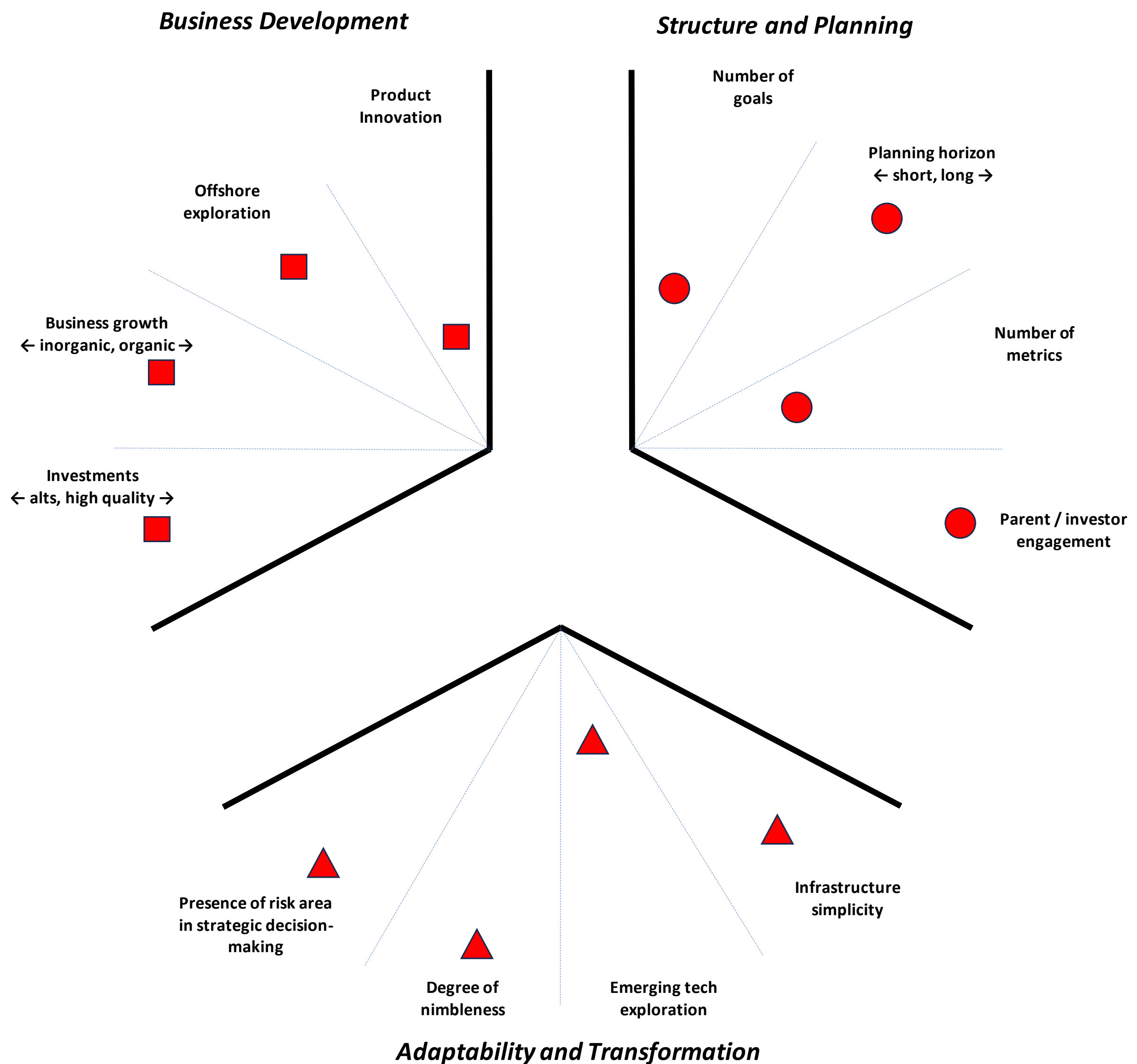
The latest trends in technology such as artificial intelligence and predictive analytics are acknowledged but may be a lesser priority, and given how these companies approach staffing, it would not be expected that they would become leaders in this space.

Key questions companies with more characteristics in this category might want to discuss:

- How do we balance long-term value for our parent companies or investors with maintaining customer service and keeping our employees happy?
- How can we maintain a nimble environment and take advantage of the latest trends in technology, such as artificial intelligence and predictive analytics, while also ensuring that our staffing remains appropriate at all levels?
- Does our approach to simplicity in metrics overlook emerging trends?
- How can we balance our focus on inorganic growth with the need to develop new products that our customers may want?

How can we optimize our risk-return profile while also ensuring that we have sufficient liquidity?

FIGURE 10.1: PROMINENCE OF ATTRIBUTES FOR COMPANIES WITH AN ACQUISITION TILT



Lower prominence or smaller numerical value reflected closer to the center of the circle, and higher prominence or a higher numerical value reflected farther from the center of the circle.

10.3 THEORETICAL PROFILE 2: SERVICE-TILTING APPROACH

Service-tilting companies tend to provide good policyholder service and maintain superior financial strength. Other strategic goals include making companies great places to work and improving efficiencies.

Service-tilting companies have a long-term approach to business, and their metrics are aligned with that approach. They are mostly related to STAT accounting and associated projections (e.g., distributable earnings on existing and new business), though some use GAAP as well. The number of tracked metrics tend to be on the higher side, and many of the existing metrics have been in existence for a long time; however, companies are somewhat open to changes and consolidation as there is still confusion with using multiple metrics. While the use of economic-based metrics may be limited, companies sometimes use them to allocate capital among businesses.

The strategic planning horizon of service-tilting companies tends to be longer-term, consistent with their approach to business decision making, though some companies use shorter planning too to achieve a better degree of nimbleness. They attempt transformation in products and processes with varying degrees of success, in part because it can take time to evolve away from their historically more rigid approach to company operations. A possible tool could be to consider broader transformation. As one company mentioned, they consistently emphasize EQ—emotional quotient or intelligence—and simplicity in thinking over IQ. Similarly, some companies are realizing the benefits of quicker decision-making and nimbleness, and they tend to be leaner. That said, other companies with heavier expense structures also recognize these benefits and appear to reflect efficiency goals in their planning.

Service-tilting companies approach their investment strategy with a leaning towards hold-to-maturity and a preference for investments positioned to generate extra yield, which can offer a competitive advantage. However, implementing this strategy could take time, likely because of company history and internal processes. Companies must strike the right balance between becoming less conservative in their investment approach and achieving their customer goals, which include maintaining their financial strength and industry reputation.

Organic growth is the primary means of business generation for this group. As service-tilting companies are generally very well capitalized and view themselves as such, they appear to have little appetite for opening or expanding their offshore presence, though some are more interested in this than others. Regulatory restrictions on actual capital and historically trapped capital in some ventures play a role. In terms of product offerings, these companies are generally conservative in their approach. They tend to see themselves as followers (though sometimes fast followers) and not innovators. This is likely driven by their focus on providing good value to policyholders, which means maintaining or improving their financial strength and customer service. It does not appear that this approach to product offerings is explicitly reflected in company strategy. Companies should consider including this angle, as it may directly affect competitiveness and customer service.

Service-tilting companies’ approach to risk management has been shifting toward making risk an integral part of decision making; they view their risk expertise in understanding the core of their business operations and strive to better integrate risk management into more company actions. Scheduling risk committee meetings just before strategy committee meetings may help ensure that risk is top of mind.

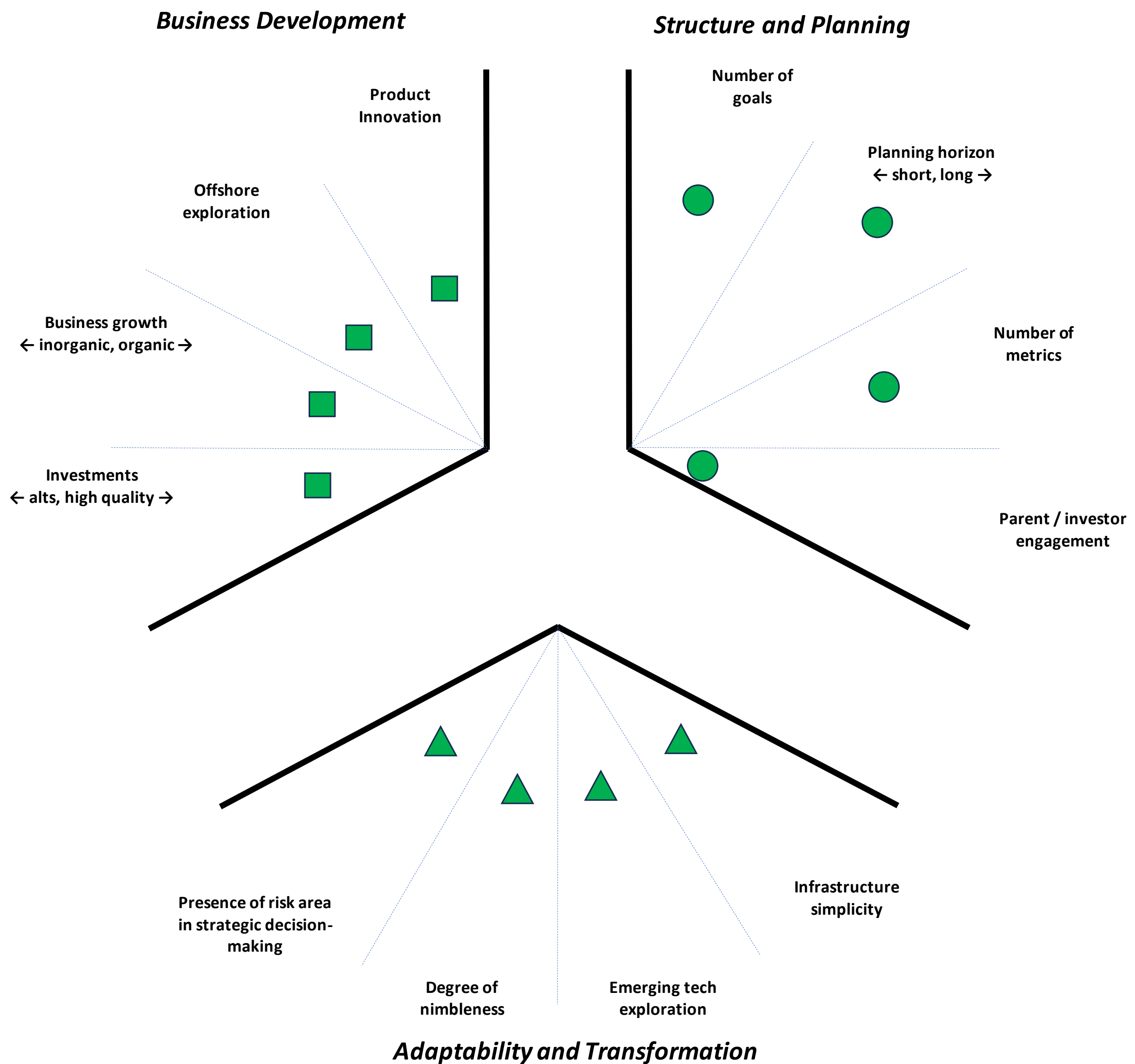
Use and adoption of emerging technology varies. While artificial intelligence is an emerging field whose practical applications are evolving, all companies are watching as this tool develops. With respect to predictive analytics, some companies are using it for setting assumptions and underwriting while others are relying on third parties or not dedicating time or resources to it at all. Legacy technology issues may need to be addressed and can hinder transformation initiatives; however, plans are in place to gradually replace existing infrastructure.

Compared to some other companies we studied, which are overseen by parent organizations or investors, service-tilting companies tend to be standalone. On the one hand, this means service-tilting companies cannot take advantage of the expertise of other parties; on the other hand, they are not influenced by outside forces within their structure and are mainly concerned with the policyholder experience.

Key questions companies with more characteristics in this category might want to discuss:

- How do we define customer service, which is a top priority? Consider financial and operational aspects and products we offer.
- Should we make quicker decisions, and if so, how?
- How can we maintain a long-term view while also defining and achieving short-term goals?
- How can we effectively measure and track our performance using a combination of financial and non-financial metrics?
- How can we leverage technology and data to improve our operations and customer experience?

FIGURE 10.2: PROMINENCE OF ATTRIBUTES FOR COMPANIES WITH A SERVICE TILT



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10.4 THEORETICAL PROFILE 3: INNOVATION-TILTING APPROACH

Innovation-tilting companies equally cover all main stakeholders by focusing on customer experience, profitability, and employee satisfaction. Specific goals include talent development, returning dividends to the parent organization, and improving operational efficiency. These companies emphasize innovation in their strategic planning.

Innovation-tilting companies' business approach includes both long-term and short-term values and may be based on a combination of GAAP and STAT metrics, though STAT-based embedded value has not received internal buy-in everywhere and is therefore not universally used. The companies consider the short-term view but prefer the long-term view, in a change from a decade ago, when these companies favored GAAP-based metrics. EC view has been periodically considered with little success or at the request of a parent company; however, it is not used to make decisions. The number of metrics used to manage the business tends to be large, and the surveyed companies appear to be interested and willing to find out a more optimal set of metrics.

Strategic planning for the innovation-tilting companies appears to have been decentralized and is undergoing transformation, so it is approached in a holistic manner at the aggregate level with business unit involvement, reflecting a company's overall federated structure. One company interviewed has no CFO role, an atypical approach that leverages the strengths of the firm's actuaries and finance professionals. Innovation-tilting companies' culture is that of stewardship, and the companies tend to emphasize efficiency goals in their strategic planning.

Nimbleness is an emerging aspect of innovation-tilting companies' management style. These firms are attempting to modify the various processes they have used for many years by transforming their finance and actuarial functions. Such transformations are progressing slowly. These companies are also considering changing their main metrics; as these involve the business units, separate analysis by various decision makers has slowed down progress.

The company's investing approach is generally driven by simplicity in overall asset allocation. Strategic asset allocation is reviewed frequently, but usually no material changes are made or expected. However, innovation-tilting companies use their strengths related to specific investment classes yet appear willing to take advantage of specific situations and invest in asset classes not typical for these types of insurers.

Innovation-tilting companies tend to innovate and are open to being product leaders in certain cases, as financial strength takes priority. They appear willing to look for opportunities to amend traditional organic-based business generation. Inorganic growth is key to certain business lines. These companies appear to have used captives historically for specific reasons, but the current role of these vehicles is being evaluated. Innovation-tilting companies see opportunities offshore but need to make sure these will be profitable, that the regulatory framework is amenable, and that this expansion would not harm their reputation.

Innovation-tilting companies report robust risk management practices. While in some cases these practices are compartmentalized, the companies are attempting to aggregate risk to manage exposures holistically. One company mentioned that its recent move toward a holistic approach to risk aggregation was prompted by the COVID-19 pandemic and the war in Ukraine. Given company structures with multiple business units, management has a number of touchpoints throughout the organization to gain comfort in areas they consider material risks. Historically, risk has not always been considered when companies have made strategic decisions; innovation-tilting companies are making progress in reversing this trend, though there is still significant room to grow. One company reported transparency and comprehensiveness of risk taxonomy and risk classifications as its strength. Innovation-tilting companies attempt to manage risk using the three-lines-of-defense model. Risk dashboards seem to be comprehensive and in use by management.

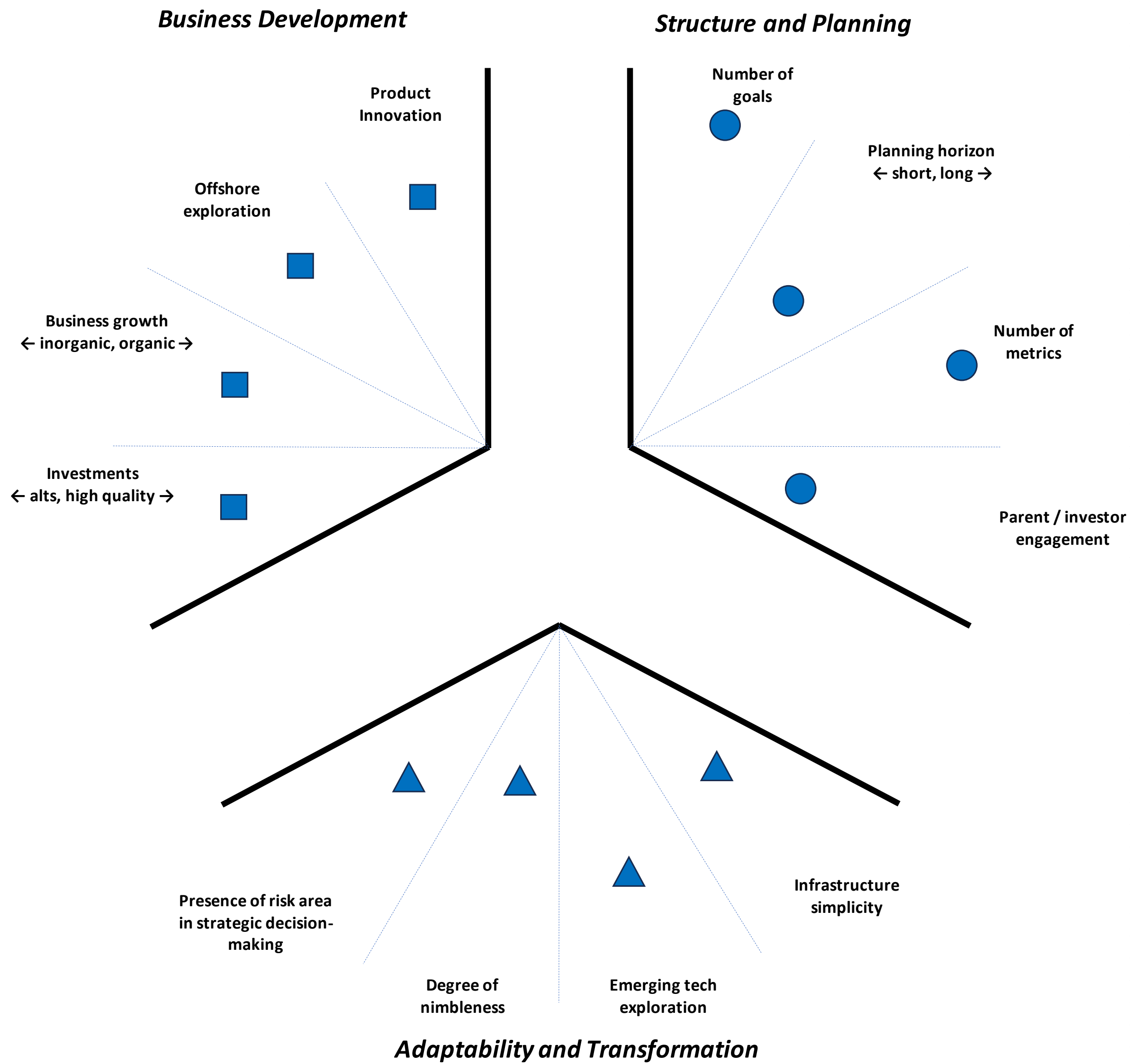
These companies show technological adaptability by their use of predictive analytics. Artificial intelligence is next on the docket as companies begin to understand this emerging technology.

Parent companies, where applicable, appear to lend their expertise and get involved in company operations, though they tend to be hands-off except for governance purposes.

Key questions companies with more characteristics in this category might want to discuss:

- How can we optimize the number of metrics used to manage the business and make it more efficient?
- How can we speed up the transformation of our processes to become nimbler?
- How can we better involve the risk area in strategic decision-making to manage exposures holistically?
- How can we better utilize our existing organizational structure to our advantage?
- How can we capitalize on talent management given it is one of our strategic priorities?

FIGURE 10.3: PROMINENCE OF ATTRIBUTES FOR COMPANIES WITH AN INNOVATION TILT



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10.5 PROFILE COMPARISON

This section compares and contrasts the various approaches across the profiles. Figure 10.4 provides an overarching view of these approaches by showing the attributes determined in the previous sections. Here are some noteworthy insights by category.

Business development

- Acquisition-tilting companies are generally most willing to explore offshore operations, grow business inorganically, and invest in alternative asset classes. Product innovation, however, is not their goal.
- Service-tilting companies generally take a traditional approach to growing their business organically. They invest in high-quality securities while limiting offshore ventures and innovation.
- Innovation-tilting companies show some willingness to expand beyond traditional approaches, provided the change is in the best interest of all stakeholders. This may be one reason why they pursue product innovation more than the other two types of companies.

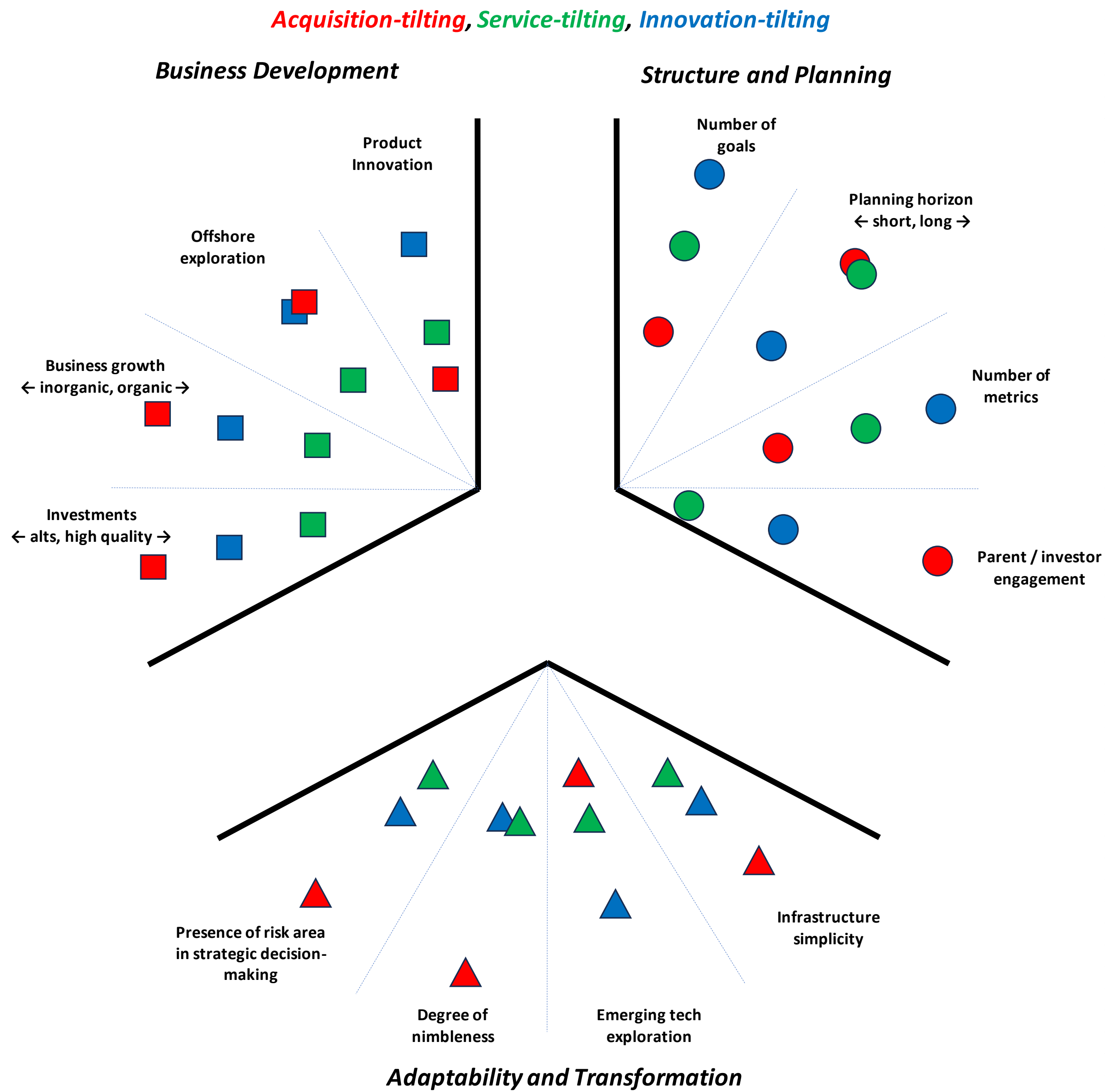
Structure and planning

- Acquisition-tilting companies generally prefer simplicity and do not establish a significant number of strategic goals or metrics to support these goals; the goals they do set are typically aligned with the investor perspective. The planning horizon tends to be long, which is also likely to be in agreement with investors or parent companies, who generally are closely involved in these companies' operations.
- Service-tilting companies are generally standalone companies with no parental or investor oversight. They set and measure an average number of goals, driven by company history and policyholder needs, and are focused on creating long-term value.
- Innovation-tilting companies generally have the largest number of strategic goals and metrics supporting them, as they serve the most stakeholders. They consider a short-term planning horizon while creating long-term value. Compared with acquisition-tilting companies, parent company involvement here appears to be more limited.

Adaptability and transformation

- Acquisition-tilting companies show significant tilt toward simplicity consistent with a focused approach on delivering value to their parent companies and investors. As a result, they tend to be most nimble and embrace risk management not only as a tool in itself but to support decision making. These companies are unlikely to be at the forefront of emerging tech exploration.
- Service-tilting companies are likely to have legacy technology issues which can hinder transformation initiatives. That said, they acknowledge the need to be nimble and appear to have initiated processes in that area, including involving the risk function in strategic company decision making. Similarly, these companies tend to recognize that they need to explore AI and predictive analytics to compete.
- Innovation-tilting companies generally sit between the other two profiles in terms of infrastructure. As the largest product innovators, they have embraced emerging technology and appear to be leading in that effort, in part to address multiple stakeholder needs. While not the nimblest, they are modifying their processes to make decisions more quickly and have started to include the risk management area in their strategic decision making.

FIGURE 10.4: HOW THE ATTRIBUTES COMPARE ACROSS COMPANY TYPES



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11. Conclusions

The dynamic U.S. life insurance market continues to be nimble, and our research highlights how companies are adopting innovations and adapting to pressures. In particular, our interviews with executives revealed the industry response to some of today's most timely issues, including the following suggestions we have.

- While using a variety of financial and accounting metrics, both for internal and external reporting, may provide a comprehensive view of the company's performance, it also may make it challenging for strategic decision making. It may be useful for companies to explicitly determine the metrics that are the company's management "north star," which could be helpful for strategic decision making and communication with these constituents.
- Company priorities and objectives lead to a variety of approaches to in-force management, from dedicated teams with frequent analysis and active management to cross-functional committees that meet periodically to discuss ideas and potential actions to a lack of dedicated personnel focusing on these issues. Setting up or enhancing workflows for getting data, and developing a framework for how to review, evaluate, and make decisions on potential actions, could lead to more effective in-force management capabilities.
- Large life insurance companies often encounter challenges when making tactical investment decisions due to multiple layers of management. Streamlining communication and feedback loops can expedite decision-making processes. Medium and small life insurance companies encounter challenges in effectively assessing risks and optimizing portfolios to manage and diversify their investments. Implementing advanced risk-return metrics such as efficient frontier can improve portfolio performance and risk mitigation.
- Whether or not to pursue offshore opportunities appears to be driven by cultural differences and company entrance in the insurance industry. Understanding key similarities and differences between creating capital efficiency through an offshore versus onshore vehicle could help all companies determine an appropriate move.
- Generally, enterprise risk management practices across the industry are very mature, having evolved tremendously subsequent to the 2008 financial crisis. Best-practice companies highlight the importance of a strong risk culture and emphasize how it permeates throughout their organizations. Moreover, increasingly, risk management has become less of a simply defensive function and instead one that has more of a strategic perspective, with CROs being brought in to support major decisions such as the acquisition of a new block of business or the placement of business offshore.
- The companies we interviewed are actively trying to leverage new technology like AI and predictive analytics, although they are grappling with how to do so in a way that adds value. The industry continues to explore and invest in AI and predictive analytics. As technology matures, and the industry becomes more comfortable with these tools, we can expect to see a broader and deeper integration into various aspects of the business.

Companies are increasingly on a path to develop or enhance a holistic approach to their balance sheet management. To a large degree, the holistic approach employed by a given company is a result of that company's culture, which is itself a result of a certain evolutionary path. Because of this dependency (culture ←→ evolution → decision-making approach), companies' strengths are often reinforced with time and weaknesses may become blind spots. Although practices vary and no two companies are alike, similarities and differences have emerged that allowed us to create three theoretical profiles reflecting common patterns in companies' holistic decision-making approach:

- **Theoretical Profile 1**: Acquisition-tilting. Companies under this profile are more willing to explore offshore operations, grow business inorganically, and invest in alternative asset classes. They have a small number of strategic goals aligned with the investor/parent company perspective. These companies are very nimble and value simplicity but are not leaders in product or emerging tech innovation.
- **Theoretical Profile 2**: Service-tilting. These companies traditionally grow business organically, are somewhat skeptical of exploring offshore for optical reasons, and invest in high-quality securities. Strategic goals are driven by the needs of policyholders, including value creation in the long term. They are starting to address nimbleness concerns and getting risk areas involved in strategic decision making.

- **Theoretical Profile 3**: There is some willingness to venture out of the traditional constraints to satisfy the needs of their stakeholders. Product innovation tends to be the highest. Because they consider the largest number of stakeholders, these companies tend to consider a significant number of goals and metrics, which also include short-term considerations. They embrace emerging tech and appear to be leading in that effort.

No company fits one profile and we do not advocate any one profile. Each one has its own structure and method, advantages, and disadvantages. The life insurance industry will benefit from a healthy balance of the companies with various decision-making approaches as described in the profiles.

Companies can create their own profiles relative to the three theoretical profiles and should ask the question: are we happy where we stand on the spectrum in each area? In addition, all companies are encouraged to review all the questions we offered in sections 10.2-10.4 to add more tools in their toolkit as they explore and address them to ensure that they have a competitive advantage.

12. Appendix

List of interview questions. Topics are addressed in the sections listed.

Section 4: Strategy and metrics

1. What financial metrics (consider long-term and short-term) does the company target to achieve its long-term objectives? Please discuss: 1) the reasons to use these metrics and 2) past events that resulted in a reconsideration of such targets for your company's long-term vision.
2. What bases of accounting does your company use? Please discuss how each basis is used to achieve your company's long-term goals.
3. Please discuss whether and how the revisions to the regulatory and accounting standards resulted in changes to your company's financial objectives and their impact on the various stakeholders, including policyholders, shareholders, regulators, etc. Consider AG53, IFRS 17, LDTI.
4. Does your company have a long-term strategic plan? If so, how long has the plan been in place? Does your company have associated metrics to achieve it? Please describe how the company balances the needs of its stakeholders.
5. How does your company approach liquidity risk management? Describe the organizational structure and process to manage liquidity. Describe the actions in liquidity risk management over the past decade or so, and reasons for taking these actions.
6. Describe considerations related to your company's approach to product development and pricing. Include strategic and tactical reasons; process: leading versus following; and what is included in the financial review of product performance.
7. Please discuss the organizational structure of your company and what each functional area is responsible for. For each item below, list the rationale.

   a. Which area is responsible for decisions related to capital consumption and origination, risk, ALM?

   b. Does the actuarial area report to the CFO or CEO?

   c. Is the risk area independent and reports to the board?

Section 5: In-force management

8. How do you think about or how do you define in-force management? How much of a priority is it? Consider in-force management, NGEs, reserves.
9. What are your primary objectives of in-force management? What actions have you considered or implemented?
10. What metrics do you look at to determine whether to make in-force management actions?
11. What challenges do you face in evaluating potential in-force management actions?

Section 6: Investments

12. What would be your process for re-evaluation of investment strategy in view of a shock to the economic conditions (e.g., current banking situation)?
13. How did your investment strategy change in the past decade’s low interest rate environment? Describe strategic considerations (longer term, aligning with company strategy, etc.) and tactical considerations (shorter term, addressing specific goals or metrics). How would your investment strategy change related to the current rising interest rate environment?
14. Describe the investment trends in your company over the past decade or so and explain the reasons. Include both strategic and tactical considerations.

    a. Are there any specific asset types that you are trying to invest more in and why?

    b. Are there any specific investments that you are trying to get away from and why?

Section 7: Inorganic growth/structuring

15. How does your company view organic versus inorganic growth in consuming free capital available for growth? To the extent free capital has been a limiting factor to growth (organic or inorganic), have you considered actions such as creating a sidecar to enable access to third-party capital for growth? If not, why not?
16. If applicable, how does your company view U.S. onshore versus U.S. offshore (e.g., Bermuda) operations and their purpose? To the extent not applicable, what has been the reason for not having an offshore subsidiary operation as part of a broader capital management strategy?
17. Please discuss how you view structuring/optimization (captives, internal or external reinsurance) for the purpose of capital and reserve efficiency, specifically in terms of its priority at your company. For example, do you have a dedicated team or personnel focused on this area as you grow or sell products?

Section 8: Risk/capital

18. Please describe how the risk (ERM) function is organized within your company. If there is a dedicated ERM unit, how does it fit with the rest of the organization and what are its key activities? Consider governance, three lines of defense.
19. Where do you perceive the relative strengths of your ERM program are compared to your peers and your internal objectives? What are the most significant areas of work ahead in the coming year?
20. Which emerging risks are top of mind for you and your organization? What are you doing around climate risk management? How are you addressing regulatory risk? Are you comfortable with your organization’s position regarding model risk management? Include cyber risk.
21. Does the risk function have meaningful impact on strategic decisions? Or is the role of the risk function more an "after-the-fact" event? For example, is the risk function involved up front during an M&A opportunity? Or in making SAA decisions? Product innovation and pricing?
22. What capital/reserving measures do you calculate other than stat and GAAP? Is some type of internal capital (economic capital) number calculated? If so, how is that number used to help manage the business? Is "risk capital" brought into product pricing (e.g., RORAC)? How are capital allocation decisions made and how is capital allocated? If you have been successful in getting EC used across the business, what factors have helped drive that success? What analytics do you perform around EC (e.g., analysis of change, risk decomposition analysis, etc.)?
23. What types of risk analytics are you performing? What do you present to senior management or the board? What are key decision makers most interested in seeing from a risk perspective?

Section 9: Systems and data

24. Has your company undergone a finance or actuarial transformation in recent years? If so, what motivated this? Has the transformation been technology focused, or are there wider business and strategic aspects? Have you realized the benefits of what you had hoped for as a result of transformation?

What are you doing to invest in the use of data and more advanced uses of data, including predictive analytics and AI? How are you keeping on top of the rapid developments in this space?

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