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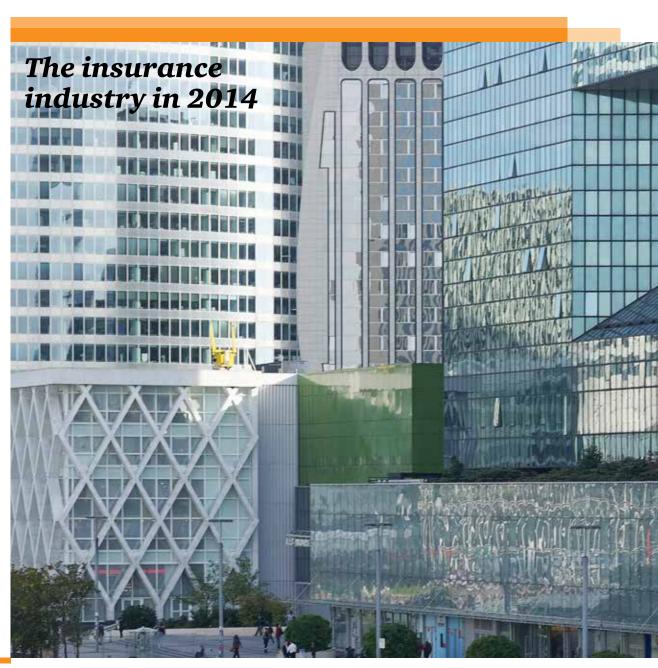


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Insurance modernization



Insurance contracts accounting proposals

In June 2013, both the FASB and IASB issued exposure drafts describing proposals that would fundamentally change the accounting and financial reporting for insurance contracts. These proposals likely will frame the insurance reporting landscape for at least the next generation. While both proposals provide a comprehensive framework for insurance arrangements, the context in which the two proposals will be considered is different. IFRS does not currently have a globally consistent insurance contracts standard, whereas US GAAP has a long-standing body of insurance industry guidance. Regardless, both proposals would constitute a significant overhaul under either framework.

At a high level, both Boards are proposing the use of a "current value" discounted cash flow measurement for insurance liabilities. Any excess of expected premiums to be received over expected claims and expenses would be deferred as "margin" and amortized into income over the periods for which the insurance is provided. Expected losses would be recognized immediately. The IASB's proposal requires an explicit risk adjustment related to the nature of the insured risk – essentially bifurcating the margin between a "service" and insurance risk premium. Under the FASB proposal, the margin would be locked-in, and would not be impacted by future assumption changes unless a contract is loss making; under the IASB's proposal, the margin is unlocked for future assumption changes.

Under both sets of proposals, a modified model would apply for short-duration contracts meeting specified criteria, similar to today's unearned premium approach. However, unlike current GAAP, the proposed guidance would require discounting of incurred losses with limited exceptions.

Revenue recognition and presentation also would change under both sets of proposals. For instance, premiums from life insurance would no longer be recognized as revenue when due. Instead, insurance revenue would be allocated to individual periods based on the expected pattern of incurred claims and release from risk. In addition, deposit elements such as cash surrender values in life insurance products and experience adjustments in property/casualty contracts would be excluded from premium and claim information presented in the income statement. There also could be a significant increase in disclosures on risks, assumptions, and sensitivities to changes in estimates and assumptions.

In our view, the substantial costs of implementation outweigh the incremental benefits of a US GAAP insurance contracts standard that is not converged with IFRS. In the absence of a single, high-quality global standard, we believe the US markets would be better served if the FASB made targeted enhancements to the current US model.

The FASB and the IASB received over 150 responses, as well as feedback from public and individual roundtable discussions. The overall tone of the feedback emphasizes:

- The high cost of implementation;
- Concern that today's key performance indicators, which stakeholders and analysts extensively use, will either no longer be readily obtainable or become more volatile by the addition of temporary fluctuations in their measurement; and
- The need for more field testing.

The common themes of relevance, transparency and complexity have emerged from US companies' comments on the Boards' proposals during the comment letter process:

 A concern that the exposure draft, as proposed, does not provide useful information for decisions and does not reflect the economics of the businesses being reported on. For example, in regards to the discount rate, many have suggested using the expected return on assets or the pricing rate instead of the currently proposed liability rate in order to better reflect the underlying economics of the business.

- In the absence of convergence, it appears most US companies would prefer targeted changes to US GAAP.
 Some examples of proposed targeted changes include the use of current updated assumptions, consistent accounting for options and guarantees, and additional disclosures or principle-based disclosures.
- There also is overwhelming support for unlocking the margin, similar to the IASB approach, in order to better reflect current unearned profit, economics, and the long term nature of the products. This would also reduce unrepresentative volatility in income from changes in certain estimates and assumptions. The ability to unlock also would provide for simplification in the determination of the opening margin when the standard is first implemented.
- Most also agree that the simplified model for shortduration contracts should be optional so that similar contracts are not measured under different models.
- Many feel the proposed model is highly complex, difficult to understand, and will be difficult and costly to implement. A number of the comment letters identify ways to reduce both the cost of transition and the ongoing reporting burden that the model requires.

There is likely to be an increase in the use of non-GAAP measures if the new proposals are implemented as users continue to utilize existing valuation models or develop new management reporting measures.

What's next?

The proposed insurance contract standard is one of many changes currently facing insurance companies. Although the near term implications of the FASB proposal are uncertain, other significant developments including PBR and the US ORSA also are changing information needs. In addition, many life companies are showing a renewed interest in alternative measures of value, such as embedded values and economic capital measurements.

All of these developments are compelling insurers to re-evaluate all aspects of their business model and operations, including the role of the actuarial function (please see the related section on actuarial modernization). These developments will require more sophisticated financial reporting, risk management and analysis in order to address complex measurement and disclosures, regulatory requirements, and market expectations. Accordingly, there will be increased demands on the finance, risk and actuarial functions, as well as potentially significant impacts to business strategy, investor education, underlying processes, systems, internal controls, valuation models, and most other aspects of the insurance business. There also is a desire among CEOs for finance, accounting, risk and actuarial functions to become more relevant to the business overall, and for engagement with stakeholders in ways that better communicate the value of the business.

Many legacy finance and actuarial processes will not be able to sufficiently deal with the proposed changes to insurance accounting, pending regulatory and reporting changes, or to respond to market opportunities, competitive threats, economic pressures, and stakeholder expectations. Insurers need to be put in place today strategies that address pending requirements and improve the quality of the information they use to make business decisions. These strategies should view data gathering, management, analysis, and application as a foundation for all the changes we discuss above, and take an integrated approach to process, technology, and human resource requirements. Companies should begin assessing their current and future state systems and processes and use this assessment as a guide for modernizing and enhancing the finance and actuarial functions.

Implications

Within this context, the obvious question for CFOs and chief actuaries is how to respond to the proposed standard. Many companies are contemplating what to do next, but far fewer are taking action. In our view, companies should:

- Continue to monitor developments and voice opinions through industry groups and roundtables;
- Educate the business so internal stakeholders can determine the impact of product standards on product and profitability drivers;
- As the company implements other required information systems for PBR, capital management and the US ORSA, consider the systems, models, processes, controls and data needs of the FASB proposals in order to have an integrated and efficient reporting process; and
- Not wait to develop an informed strategy on your roadmap to adoption they should do it *now*.

In coming years, finance and actuarial functions will be dealing with an unprecedented amount of change that will frame the insurance reporting and solvency landscape for the next generation. These requirements will come into effect at different times, and uncertainty remains about their final form. Accordingly, companies need to develop thoughtful, proactive implementation strategies in order to avoid rework and changes that could ultimately lead to excessive costs and underdelivery on original targets.

Actuarial modernization – Factors for success

As financial reporting and regulatory requirements change, and as insurance company ERM and rating agency assessment tools continue to evolve, insurers will need to manage their business in accordance with a variety of additional metrics. These new metrics may include those being proposed around the IFRS/FASB Insurance Contracts projects, Principal-based Reserving for life insurers, the communication of ORSA requirements (i.e., assessment of risk, stress testing and projected capital, and CAT modeling output), updates and enhancements to internal metrics (i.e., economic capital and embedded values), and expanded disclosures.

These metrics likely will be different from what exists today, and management will need sufficient analysis and insight to use them strategically. An insurer's actuarial department will have a critical role in producing, testing, and communicating them, and actuaries must be prepared to meet management's demands and expectations. Accordingly, actuarial departments must have the necessary personnel, processes and infrastructure to produce these new metrics in a timely, well governed and efficient manner, in order to provide the business as a whole with appropriate insight and supporting analyses.

To effectively produce these new metrics, actuarial departments will need to modernize with new tools, hardware, processes and skills. However, this will be a significant undertaking, especially considering how most organizations and regulatory environments are constantly changing. Re-engineering projects will require careful planning, and those managing and undertaking them will need to keep in mind that change includes and affects people, processes, and technology. Developing a modernization strategy that provides a path to real change includes visualizing a compelling future state, articulating and communicating expectations, defining a roadmap with achievable goals, and avoiding overreach during the implementation.

On the following pages, we list ten key factors for success based on what we have seen on actuarial modernization projects at PwC clients. By carefully addressing these factors, insurers that are planning or already undertaking actuarial modernization initiatives will have a greater chance of meeting their strategic objectives and providing real value to the organization.

Organizational change is not onedimensional: it includes and affects people, processes and systems.

Actuarial departments must have the necessary personnel, processes and infrastructure to produce new metrics in a timely, well governed and efficient manner.

	Success factor	Observations
1	Develop strategies that are practical and address the needs of all key stakeholders.	 Strategies often focus too narrowly on upgrading modeling software and regulatory compliance. They often do not effectively take into account what stakeholders need or what is feasible from a business perspective. Actuarial modernization programs have the potential to provide substantial benefits to an organization, but they are complex and costly. Programs that are designed to meet the needs of finance, risk, and the business overall are more likely to obtain management buy-in and receive sufficient funding. These programs also need to be practical, both in terms of cost/benefits and implementation timelines. We have found that many programs focus too narrowly on one particular actuarial process (e.g., speeding up valuation) and struggle to succeed because they address too narrow an issue and ignore how other stakeholders could benefit if the program also took their needs into account.
2	Develop strategies with a sufficient level of detail and clarity.	 Strategies range from high-level visionary statements and targets with little to no detail to overly detailed wish lists of required functionalities that are not tied to an over-arching strategy. Given their overall cost, complexity and the wide-ranging implications, actuarial modernization programs need to spell out in sufficient detail to all stakeholders what changes will occur and why, and what the resulting benefits will be.
3	Develop an integrated strategic plan to address the potential complexity of ongoing initiatives across divisions and avoid "digging up the road twice."	 "Changing the wings while flying" or incorporating new and complex operational and technology changes while dealing with ongoing operational and development pressures challenges even the most efficient organizations. At the heart of almost all actuarial modernization programs is the need to efficiently produce and analyze complex metrics that should be consistent across various measurement frameworks while relying on the same data and assumption sources and validated calculation engines. Invariably, this means that many ongoing initiatives should, by default, already contemplate the impact on the actuarial area. However, this is not always the case; impact assessments are not always "future proof" in that they do not contemplate the scope of actuarial function changes that are necessary to meet future requirements.
4	Sequence initiatives, quantify impacts, and assign accountability for business benefits and costs.	 Organizations often do not rigorously follow through on quantifying, assigning responsibility, and measuring business benefits and costs. Even if costs of a program are measured, benefits are rarely quantified. Many actuarial modernization programs fail in the planning phase because organizations cannot justify the overall spend. In order to gain approval, the business case supporting an actuarial modernization program needs to clearly articulate in sufficient detail its scope and cost, but – more importantly – should describe how the company's people, operational efficiency, and governance and controls, will benefit, as well as how business insights will improve.
5	Secure organization-wide commitment to the project.	 Agreement at a mile-high level does not necessarily translate into ground level understanding of strategic vision, senior management commitment, and the inevitable trade-offs that will need to occur. Senior management's commitment to an actuarial modernization program is vital considering its costs, complexity and organizational impact. Program sponsors need to spend sufficient time up front to ensure that senior management understands the strategic vision behind and potential implications of change, and buys into it them.
6	Clearly define expectations and service level agreements between IT and actuarial.	 There is often miscommunication between the actuarial and IT functions. Actuarial often believes IT does not understand its needs and lacks the flexibility to perform all desired analyses. In turn, IT often believes actuarial lacks discipline and control. The relationship between IT and actuarial functions is critical to the success of actuarial modernization programs – and ultimately the actuarial function overall. Accordingly, there should be a mutual understanding of objectives, clear roles and responsibilities, adequate service level agreements that set expectations, and proper organizational balance between and support of the two functions.

Success factor **Observations** Translate strategic · Business and IT do not have a common language to specify, understand and translate strategy into objectives into operational operational implications and then technology requirements. processes and technology · Actuarial modernization requires a devoted core team of individuals with complementary skills that work well requirements. together, specifically: Actuaries with the patience and discipline to write very clear and understandable technical business requirements; Subject matter experts with a thorough understanding of current industry practice, superior communications skills, and the ability to creatively and confidently address relevant issues; Business analysts who can work closely with others to design a clear analytical framework, maintain a keen focus on quality, and arrive at solutions that incorporate appropriate checks and controls; - IT specialists with in-depth knowledge of source systems and architectures, strong listening skills that help them focus on the business problem, and the ability to develop solutions that the organization can expediently implement. · Many actuaries and actuarial departments use badly dated technology and/or default to tools that are familiar Consider new technologies and approaches. but not entirely fit for purpose. Many actuarial modernization programs focus on how to use existing tools and technology more efficiently and/or improve their processing speed. In fact, better outcomes usually result from redesigning processes, eliminating manual spreadsheets, and introducing newer technology tools. Pay attention to governance • Organizations continue to find "surprises" and a lack of transparency in the metrics their actuarial functions and controls. produce. These risks will increase as new insurance contracts accounting standards and Principle-based Reserving requirements come into effect. Moving beyond SOX and MAR, regulatory initiatives such as model validation and ORSA are requiring actuaries to document and produce a wider range of controlled metrics and analysis that are subject to well governed processes. Any actuarial modernization implementation should reflect emerging governance and control requirements, and avoid waiting to document and validate the redesigned process and models only when their implementation is complete. 10 Identify and achieve · A long, drawn out implementation with improvements that are visible only at the back end will cause quick wins to maintain stakeholders to lose interest and the project team to lose momentum. momentum. Successful actuarial modernization programs use proof of concept pilots both to validate strategies and

Implications

 Actuarial modernization projects have moved beyond a "nice to have" and are increasingly necessary in order for insurers to meet new regulatory and financial reporting requirements as well as to effectively produce and analyze the metrics the organization needs to adequately price risk and manage the business.

measurable improvements.

- Modernization projects need to be both strategic enough to benefit the entire organization, but not so vague as to not clearly define a desired end-state and how to get there. That said, any plan should not be so proscriptive as to be inflexible and unadaptable to changing conditions.
- Insurers' financial systems are too complex for any one profession to master. Actuaries cannot do it alone they must collaborate with other professionals. An effective modernization will affect the entire organization senior management, actuarial, finance, risk management, IT, product development, etc. and all of these stakeholders need to be involved in it from planning throughout implementation. Problems are likely to arise if they do not buy into the modernization and are not on the same page from inception to completion.
- Effective modernizations usually take place in regular, bite-sized increments. Insurers should avoid trying to do too much at once, but should aim to have a steady stream of improvements in order to maintain project momentum.

identify tangible benefits. They also occur in regular, bite-sized chunks in order to maintain a cadence of

Risk management

To understand the evolution of enterprise risk management, it is important to remember that ERM is relatively new. Ten years ago, many US insurers were still trying to determine if they should have a CRO, what sort of risk metrics they should use, and the organization of the risk function and how it should connect with the rest of the business. Since then, insurers have built key ERM foundations, engaged and empowered skilled risk professionals, and deployed sophisticated risk models – and seen them tested in a financial crisis and subsequent recession. They are now ready to begin the next phase in ERM's development.

The developments in the next phase are natural because they are a direct consequence of putting in place the risk management foundation. This foundation has essential quantitative elements, and now is the time for insurers to turn their attention to qualitative ones. For example, now that sophisticated risk models are in place, the next step is to manage them and the risks that they may pose. Likewise, there are new risk management metrics systems; most often, insurers have made these separate from existing GAAP and statutory processes. The next step – especially with GAAP and statutory changing, too – is to integrate all of these processes into a common platform.

Model risk management

Prescient insurers recognize the limitations of the models they use and the assumptions that drive model results. Whether through single-point VAR-like values or enterprise stress testing regimes, projected results are becoming more important in the development of strategic direction and making key financial decisions (e.g., dividend increases and share repurchases).

As they assess model risk, we encourage insurers to recognize two important realities: 1) model risk management is much more than model validation and 2) they need to manage more than just risk models. An effective risk management program has a documented framework that includes policies on developing and maintaining a model inventory (including a risk assessment), clearly states model owner, model risk managers and internal audit responsibilities, and stipulates validating inputs, usage and limitation awareness, as well as the calculation engine.

Because most model risk management programs start as ERM-specific initiatives, they strongly focus on risk models. However, they also should consider other financial models that drive business decision-making, including the models insurers use to develop GAAP and statutory projections. This is especially important considering how these processes eventually are likely to converge to a common platform.

Insurers should consider how they can integrate GAAP, statutory and risk requirements into a common platform.

Platform convergence

Most US insurers have long recorded their results and driven their decision-making in accordance with two financial regimes, GAAP and statutory. For many insurers, there is now also a risk regime, which is typically more economic in its outlook, sometimes with more market-consistent components. Its features match well with the direction of the proposed changes to GAAP and statutory accounting; accordingly, the time is right for insurers to contemplate integrating the platforms more directly.

Other factors also are encouraging these changes. The insurance industry (particularly life) needs to find a way to lower distribution and manufacturing costs. Asset managers and other competitors in the long term savings marketplace are more efficient and offer more transparency than insurers. In order to succeed, insurers will need to be leaner and more responsive to internal and external needs in all aspects of their business, including financial, actuarial and risk functions.

Qualitative considerations for effective risk management

"You can't manage what you don't measure" is an old though still accurate axiom. As insurers built their ERM capabilities, measuring risk was a key prerequisite to managing it. But now that they have built the measurement foundation, insurers need to turn their attention to fundamental, qualitative elements in order to become effective at managing what they can measure. These qualitative elements are common management attributes and fit into two broad categories, governance and controls.

Good governance requires clear definition of management's and the board's roles and responsibilities. Likewise, there should be clear risk policies and procedures, including for escalation in the event of limit breaches and risk-taking in excess of defined appetite. With well-defined governance and measurement, insurers are capable of enhancing key internal controls. We have already highlighted model risk management, but other key controls include data and process management, documentation, and independent review.

Insurers will need to put qualitative and quantitative elements in place in order to turn ERM into a sustainable, value adding function.

The impact of new standards and regulations

While we see this modernization of the risk function as natural, the pace at which it proceeds will depend on developments in regulation both at the state and federal level. Among smaller and some mid-sized companies, we have seem recent state initiatives (e.g., the ORSA) be the catalyst for insurers to take action on what they have internally discussed and contemplated for many years.

Moreover, federal oversight will place significant demands on those insurers that are subject to it. However it is uncertain at this time what the broader implications of these developments may be. Will federal standards result in a level of insight, safety and soundness that investors and customers embrace? If so, how much pressure will other insurers feel to emulate the most desirable elements of those standards?

As a final thought, we note that while regulation is often a catalyst for action in ERM, the beneficiaries of good risk management are the business owners. Quantitative and qualitatively effective risk management is key to driving profitable growth and sound strategies.

Implications

- Insurers have developed a risk management foundation that consists of essential quantitative elements. Now is the time to develop qualitative ones for governance and controls.
- Model risk management is more than just validating and managing risk models. It also should establish and implement a comprehensive framework for all financial models that drive business decision-making.
- GAAP and statutory regimes have traditionally driven decision-making and how to report results. Risk is now a third regime. In light of proposed changes to GAAP and statutory standards (that correspond to risk management developments), insurers should consider how they can integrate all three platforms.
- State and federal regulation will continue to drive change to risk management standards. Insurers should carefully consider how these developments can affect their business, both directly and indirectly.

Regulation



Regulatory environment

Managing uncertainty has always been a core competency for insurance executive management. However, this skillset has never been more valuable than in recent years, during which stability has eluded insurers in almost all strategic and operational areas.

Regulatory uncertainty was a key concern in 2013. PwC's 17th Annual CEO Survey indicated that regulation was among the top concerns for insurance CEOs, 80% of whom were either somewhat or extremely concerned about overregulation.

Regulation will remain a key concern in 2014 and beyond; substantial changes for the industry are likely over the next 12 months, the impact of which remains unclear even at this stage.

Global regulatory uncertainty

Regulatory uncertainty is of particular concern to international groups, given regulators' increased emphasis on group-level supervision, colleges of supervisors, revised global capital and solvency standards, and (in some cases) the real risk of extra-territorial application of regulatory powers.

Several different regulatory initiatives will go through critical development stages in 2014. These include:

- The Common Framework (ComFrame) for the Supervision of Internationally Active Insurance Groups which will enter field testing this year,
- The potential for the Financial Stability Board (FSB) and/or the Financial Stability Oversight Council (FSOC) to designate more insurers (including reinsurers) as systemically risky,

- The development during 2014 of Basic Capital Requirements (BCR) by the International Association of Insurance Supervisors (IAIS), to be used as the basis for Higher Loss Absorbency (HLA) requirements for systemically important insurers, and
- The IAIS's development of a global insurance capital standard to apply to Internationally Active Insurance Groups (IAIGs).

All of this activity should occur sometime in the near future, and will increase insurers' regulatory risk. Moreover, the effects of all these developments will not be limited to the largest and most "internationally active" companies, but will influence regulatory change and policy around the world and therefore practically all insurers.

The impact of regulatory change will be most significant for "systemically important" companies. However, as regulatory practices developed for these companies trickle downstream, all other segments of the industry also are likely to see change in the regulations with which they comply, as well as their interactions with supervisors. This may include both changes to established regulatory practices (for example, ongoing developments to expand RBC, which review of international practices has informed) and/or totally new areas of regulation (for example, risk management and corporate governance regulations, or new solvency regulations). In short, insurers that have yet to see substantial change are likely to see it soon.

Insurers that have yet to see substantial change are likely to see it soon.

The FIO report does not advocate replacing state-based regulation with a federal system, but does say there are areas in which federal involvement in the state-based system would be warranted.

FIO report on modernizing insurance regulation

In December 2013, the Federal Insurance Office (FIO) released its report, *How to Modernize the System of Insurance Regulation in the United States*. The report stops short of answering or opining on whether or not there should be a direct federal regulatory role codified in law. Rather, the FIO notes that such a consideration is left to Congress.

The report addresses both prudential (solvency) and marketplace (business conduct) regulation and posits that a lack of uniformity in the US regulatory system creates inefficiencies and a cost burden for insurers, consumers and the international community, and increases the risk of regulatory arbitrage. The report also notes that the increasingly international nature of the insurance market necessitates a federal presence in insurance regulation, and that uniform regulation would substantially facilitate international negotiations.

However, because of the local nature of many insurance products and the likely substantial cost in time and resources of establishing a federal regulator, the report recognizes that there are advantages to state-based regulation. It also acknowledges the existence of current state regulatory initiatives relevant to many of the recommendations in the report, although it notes that progress on them has been uneven so far.

Therefore, the FIO report considers not whether federal regulation should replace state-based regulation, but the areas in which federal involvement in regulation under the state-based system would be warranted. Most of its recommendations focus on steps the states could take, and suggests federal involvement only where it considers state-based regulation to be legally or practically limited in its ability to address specific concerns.

The report makes 16 recommendations for state regulators and nine for direct federal involvement.

Recommendations for state regulators

- 1. Inter-state coordination and consent mechanisms for material discretionary solvency oversight decisions.
- 2. An independent, third-party review mechanism for the NAIC's accreditation program.
- 3. A uniform and transparent solvency oversight regime for captives.
- 4. Convergence of solvency and capital regulation.
- Cautious implementation of PBR, subject to binding guidelines on regulatory practices over compliance with accounting and solvency requirements, adequate resources and expertise, and uniform guidelines for supervisory review.
- 6. Character and fitness expectations for directors and officers.
- 7. Continued development of group supervision, with continued attention to supervisory colleges.
- 8. A uniform approach to closing out and netting qualified contracts with counterparties, and requirements for transparent financial reporting regarding the administration of a receivership estate. Uniform policyholder recovery rules in relation to guaranty funds.
- 9. Participation of every state in the Interstate Insurance Product Regulation Commission (IIPRC), and expansion of products subject to approval by the IIPRC.
- 10. Standardization of product approval forms and terms.
- 11. Uniform adoption of the NAIC's Suitability in Annuities Transactions Model Regulation.

- 12. Reform of market conduct examination and oversight practices.
- 13. Identification of rate regulation practices that foster competitive markets for personal lines.
- 14. Standards for appropriate use of data in personal lines pricing.
- 15. Extension of regulatory oversight to insurance score product vendors.
- 16. Identification, adoption, and implementation of best practices to mitigate natural catastrophe losses.

Recommendations for direct federal involvement

- 1. Federal standards and oversight for mortgage insurers.
- 2. Pursuit of a covered agreement for reinsurance collateral requirements.
- 3. FIO engagement in supervisory colleges.
- 4. Adoption of the National Association of Registered Agents and Brokers Reform Act of 2013.
- 5. Development of personal auto policies for US military personnel.
- 6. Establishment of pilot programs for rate regulation.
- 7. FIO study into the use of personal information for insurance pricing and coverage.
- 8. Improvement in the accessibility and affordability of insurance on sovereign Native American and Tribal lands.
- 9. FIO monitoring of state action to simplify the collection of surplus lines taxes.

NAIC President and Louisiana Insurance Commissioner Jim Donelon, and NAIC CEO Senator Ben Nelson, both issued statements after the release of FIO's report. They recognized the report's acknowledgement of the effectiveness of state-based regulation, and stated that the NAIC would consider its recommendations. However, the statements also noted that the responsibility for implementing regulatory changes will rest with the states.

Commissioner Donelon, Senator Nelson, FIO Director Michael McRaith, and 17 other state insurance commissioners and NAIC representatives subsequently met with Treasury Secretary Jack Lew, to discuss the FIO, aspects of the FIO's report, and current international insurance work. At the meeting, Secretary Lew noted the international role of FIO, and emphasized that state regulators and the Treasury should continue to engage on regulatory issues, and to work together to modernize insurance regulation.

Own Risk and Solvency Assessment

The Risk Management and Own Risk and Solvency Assessment (RMORSA) Model Act is one of the most significant new pieces of regulation the NAIC has developed through the Solvency Modernization Initiative (SMI). Its requirements are set to enter into force in January 2015, with broad support across the states for consistent adoption into state legislation in time to meet this deadline. The level of regulatory inquiry and scrutiny that ORSA invites is indeed a "game changer" in terms of how supervision is conducted today and into the future. The ORSA, and the states' ability to effectively integrate ORSA supervision into their assessments of insurers, is a defining moment for how the regulators interact with the regulated.

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The first ORSA Summary Reports will be filed in 2015, with the filing date to be agreed between individual insurers and their supervisors. The filing date is intended to align with the insurers' internal planning cycle, meaning that in practice many insurers may expect to file towards the end of 2015. Therefore, we expect 2014 to be a critical year of preparation for US insurers, as many contemplate multiple dry runs of ORSA assessment and reporting processes in the coming two years.

Many insurers are developing and enhancing risk and capital management practices in advance of their first filings, recognizing both the business-critical nature of effective risk management, and the benefits to the supervisory process. The development process for risk management framework elements is most often iterative, and some insurers are adopting relatively aggressive planning timetables to achieve ambitious aims.

We consider early engagement with regulators to be especially critical for the ORSA because of the nature of the regulations themselves. The NAIC has adopted an ORSA Guidance Manual that sets out the requirements of the regulations and reporting, but it is an evolving document, and is changing regularly as state insurance departments prepare to implement the regulations. The ORSA regulations are principles- rather than rules-based, and leave the implementation, reporting expectations, and impact on the regulatory process largely in the hands of supervisors, some of which expect the risk focus nature of the ORSA to drive fundamental changes in the way they supervise. As a result, the next 18 months present an important opportunity for insurers; active engagement at this stage could help to define supervisory expectations and reduce the level of uncertainty going forward.1

Moving towards Solvency II

After long delays, late-2013 finally saw agreement on the contents of the "Omnibus II" directive. This directive will amend the primary Solvency II Directive text, and contains many of the outstanding details for the implementation of Solvency II, including the outcome of important technical discussions on the treatment of products with long-term guarantees. Omnibus II also contains details of transitional measures that will apply once Solvency II is implemented, including with respect to equivalence, and with some, relating to technical reserves, extending for as long as 16 years. Not least, Omnibus II also confirms the expected implementation date of January 1st, 2016, which insurers can now work towards with confidence.

Agreement on the Omnibus 2 text is coupled with the autumn 2013 publication of European guidelines on preparing for Solvency II, which provide a timetable for insurers as they prepare for the new regulations. The guidelines require implementation of various aspects of the Solvency II requirements over 2014 and 2015, including performance of an annual "forward-looking assessment of own risks" in 2014 and 2015. The assessment is closely linked to the ORSA, and insurers will have to submit a supervisory report after each assessment. Insurers also will need to submit subsets of Solvency II quantitative and narrative reporting to supervisors, prepared using 2014 year-end data.

Omnibus II will not receive formal approval until the early part of 2014. However, the fact that agreement has been reached on its contents provides much-needed clarity for insurers (including US insurers with operations in Europe).

¹ Please see the section on modernizing risk management for related commentary on these issues.

In combination with the guidelines for preparation, insurers now have a relatively clear idea of expectations over 2014 and 2015, and the requirements beyond implementation in 2016. Accordingly, we are now seeing many insurers that had placed their Solvency II programs on hold during the delay resume preparations in 2014.

Despite the extensive preparations that insurers have undertaken to date, many of them are still likely to have substantial ground to cover over the next twelve months, particularly in relation to reporting and disclosure requirements. Reporting and disclosure has received comparatively little attention so far, in part because the disclosure requirements were developed much more slowly than the solvency and risk management elements of Solvency II, but also because early preparation was seen by many as less important. However, Solvency II will require detailed quantitative reporting on a quarterly basis within tight deadlines, and investment in systems, data, processes and resources likely will be necessary for insurers to meet its requirements. Accordingly the 2014 year-end submission will be the time for all insurers, including international groups, to dry run reporting processes.

The fact that there is now EU-wide agreement on Solvency II provides insurers much-needed clarity.

Implications

- Regulatory change and uncertainty will continue through 2014, and will affect all insurers, not just those designated as systemically important. An understanding of regulatory initiatives will be necessary for proactive change management. For international groups, engagement with the college of supervisors is essential.
- The FIO has not advocated federal replacement of the state regulatory system, but has presented state regulators with several recommendations on their oversight responsibilities, as well as several others on where it views federal oversight would be warranted. While it is uncertain how and when these recommendations may become actual practice, insurers should carefully consider their responses to them (as well as the rest of the FIO's December 2013 report) and how to best communicate them with all relevant parties.
- Insurers should be actively planning for the ORSA at this stage, and should plan to engage with regulators if they have not already done so; this is particularly true for groups. 2014 will be a key preparation year, and insurers should aim to complete at least two dry runs before the first live submission in 2015.
- Solvency II is back on the agenda, and the final requirements and timetable are now relatively clear. Most groups subject to the requirements will need to submit information to regulators during 2014, and reporting requirements for year-end 2014 will likely require substantial preparation. For all groups operating in Europe, moving forward with Solvency II preparations during 2014 will be critical.

Strategy



Knowing your customer – An imperative for growth

Creating a data science office

The insurance deals market

Reinventing life insurance

Many life insurance executives with whom we have spoken say that their business needs to fundamentally change in order to be relevant in today's market. It is true that the life insurance industry faces formidable challenges.

First, let's take a hard look at some statistics. In 1950, there were approximately 23 million life policies in the US, covering a population of 156 million. In 2010, there were approximately 29 million policies covering a population of 311 million. More recently, the percentage of families owning life insurance assets has decreased from over a third in 1992 to below a quarter in 2007. The stagnation or decline of life insurance contrasts with the rise of mutual funds; less than a quarter of the population owned such investments in 1990 but over two-fifths (or 51 million households and 88 million investors) did by 2009.

A number of socio-demographic, behavioral economic, competitive, and technological changes explain why this has happened:

• Changing demography: Around 11.7% of men and an equal number of women were between the ages of 25-40 in 1950. However, only 10.2% of males and 9.9% of females were in that age cohort in 2010, and the percentage is set to drop to 9.6% and 9.1%, respectively, by 2050. This negatively affects life insurance in two main ways. First, the segment of the overall population that is in the typical age bracket for purchasing life insurance decreases. Second, as people see their parents and grand-parents live longer, they tend to de-value the death benefits associated with life insurance.

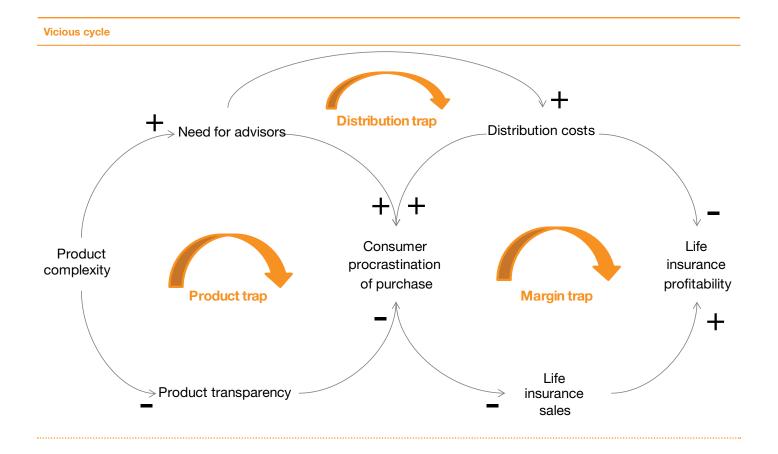
In 1950, there were approximately 23 million life policies in the US, covering a population of 156 million. In 2010, there were approximately 29 million policies covering a population of 311 million – more than a 35% drop in market share in 60 years.

- Increasingly complex products: The life insurance industry initially offered simple products with easily understood death benefits. Over the past 30 years, the advent of universal and variable universal life, the proliferation of various riders to existing products, and new types of annuities that highlight living benefits significantly increased product diversity, but often have been difficult for policyholders and customers to understand. Moreover, in the wake of the financial crisis, some complex products had both surprising and unwelcome effects on insurers themselves.
- Individual decision-making takes the place of institutional decision-making: From the 1930s to the 1980s, the government and employers were providing many people life insurance, disability coverage and pensions. However, since then, individuals increasingly have had to make protection/investment decisions on their own. Unfortunately for insurers, many people have eschewed life insurance and spent their money elsewhere. If they have elected to invest, they often have chosen mutual funds, which often featured high returns from the mid-1980s to early 2000s.
- Growth of Intermediated distribution: The above factors and the need to explain complex new products led to the growth of intermediated distribution.

 Many insurers now distribute their products through independent brokers, captive agents, broker-dealers, bank channels, aggregators and also directly. It is expensive and difficult to effectively recruit, train, and retain such a diffuse workforce, which has led to problems catering to existing policyholders and customers.
- Increasingly unfavorable distribution economics:
 Insurance agents are paid high, front-loaded commissions, some of which can be as high as the entire first-year premiums and a small recurring percentage of the premium thereafter. Moreover, each layer adds a percentage commission to the premiums. All of this increases costs for both insurers and consumers. In contrast, mutual fund management fees are only 0.25% for passive funds and 1-2% for actively managed funds. In addition, while it is difficult to do so with insurance agency fees, it is relatively easy to compare mutual fund management fees.

• New and changing customer preferences and expectations: Unlike their more patient forebears, Gens X and Y – who have increasing economic clout – demand simple products, transparent pricing and relationships, quick delivery, and the convenience of dealing with insurers when and where they want. Insurers have been slower than other financial service providers in recognizing and reacting to this need.

The preceding factors have resulted in a vicious cycle (see graphic below) for insurers. Insurers claim that, in large part because of product complexity, life insurance is "sold and not bought," which justifies expensive, intermediated distribution. For many customers, product complexity, the need to deal with an agent, the lack of perceived need for death benefits, and cost of living benefits make life products unappealing. In contrast, the mutual fund industry has grown tremendously by exploiting a more virtuous cycle: it offers many fairly simple products that often are available for direct purchase at a nominal fee.



For many customers, product complexity, the need to deal with an agent, the lack of perceived need for death benefits, and cost of living benefits make life products unappealing.

Reasons for optimism

Despite the bleak picture we have painted so far, we believe it is possible for the industry to redesign its business model and reinvent itself. This will require fundamental rethinking of value propositions, product design, distribution and delivery mechanisms, and economics. Some of the most prescient insurers are already doing this and focusing on the following in order to become more attractive to consumers:

- From living benefits to well-being benefits: There is no
 incentive built into life policy calculations for better living
 habits because there traditionally has been very little data
 for determining the correlation between these behaviors
 and their impact on life expectancy.
 - However, the advent of wearable devices, real-time monitoring of exercise and activity levels, and advances in medical sciences have resulted in a large body of behavioral data and some preliminary results on how they impact life expectancy and quality of life. There are now websites that can help people determine their medical age based on their physical, psychological, and physiological behaviors and conditions. We refer to all these factors collectively as "well-being behaviors." Using the notion of a medical age or similar test as part of the life underwriting process, insurers can create an explicit link between "well-being behaviors" and expected mortality. This linkage can fundamentally alter the relevance and utility of life insurance by helping policyholders live longer and more healthily and by helping insurers understand and price risk better.
- From death benefits to quality of life: Well-being benefits promise to create a more meaningful connection between insurers and policyholders. Rather than just offering benefits when a policyholder dies, insurers can play a more active or even proactive role in changing policyholder behaviors in order to delay or help prevent the onset of certain health conditions, promote a better quality of life and even to extend insureds' life spans.

- This would give insurers the opportunity to engage with policyholders on a daily (or even more frequent) basis in order to collect behavioral data on their behalf and educate them on more healthy behaviors and life-style changes. In order to encourage sharing of such personal information, insurers could provide policyholders financial (e.g., lower premiums) and non-financial (e.g., health) benefits.
- From limited to broad appeal: Life insurance purchases are increasingly limited to the risk-averse, young couples, and families with children. Well-being benefits are likely to appeal to additional, typically affluent segments that tend to focus on staying fit and healthy, including both younger and active older customers. For a sector that has had significant challenges attracting young, single, healthy individuals, this represents a great opportunity to expand the life market, as well as attract older customers who may think it is too late to purchase life products.
- From long-term to short-term renewable contracts:

 Typical life insurance contracts are for the long-term.

 However, this is a deterrent to most customers today.

 Moreover, behavioral economics shows us that individuals are not particularly good at making long-term saving decisions, especially when there may be a high cost (i.e., surrender charges) to recover from a mistake. Therefore, individuals tend to delay purchasing or rationalize not having life insurance at all. With well-being benefits, contract durations can be much shorter even only one year.
- Towards a disintermediated direct model: Prevailing industry sentiment is that "life insurance is sold, not bought" and by advisors who can educate and advise customers on complex products. However, well-being benefits offer a value proposition that customers can easily understand (e.g., consuming X calories per day and exercising Y hours a day can lead to a decrease in medical age by Z months), as well as much shorter contract durations. Because of their transparency, these

products can be sold direct-to-the consumer without intermediaries. More health conscious segments (e.g., the young, professional, and wealthy) also are likely to be more technologically savvy and hence prefer direct online/call center distribution. Over time, this model could bring down distribution costs because there will be fewer commissions for intermediaries and fixed costs that can be amortized over a large group of early adopters.

We realize that life insurers tend to be very conservative and sceptical about wholesale re-engineering. They often demand proof that new value propositions can be successful over the long-term. However, there are markets in which life insurers have successfully deployed the well-being value proposition and have consistently demonstrated superior performance over the past decade. Moreover, there are clear similarities between what we describe above and what has happened in the US auto insurance market over the last 20 years. Auto insurance has progressively moved from a face-to-face, agency driven sale to a real-time, telematics supported, transparent, and direct or multichannel distribution model. As a result, price transparency has increased, products are more standardized, customer switching has increased, and real-time information is increasingly informing product pricing and servicing.

Implications

Significantly changing products and redesigning a longestablished business model is no easy task. The company will have to internally and externally redefine its value proposition and/or create an entirely new one, target individuals through different messages and channels, simplify product design, re-engineer distribution and product economics, change the underwriting process to take into account real-time sensor information, and make the intake and policy administration process more straightthrough and real-time. So, where should life insurers start? We propose a four step "LITE" (Learn-Insight-Test-Enhance) approach:

- **Learn** your target segments' needs. Life insurers should partner with health insurers, wellness companies, and manufacturers of wearable sensors to collect data and understand the exercise and dietary behaviors of different customer segments. Some leading health and life insurers have started doing this with group plans, where employers have an incentive to encourage healthy lifestyles among their employees and therefore reduce claims and premiums.
- Build the models that can provide **insight**. Building simulation models of exercise and dietary behavior and their impact on medical age is critical. Collecting data from sensors to calibrate these models and ascertain the efficacy of these models will help insurers determine appropriate underwriting factors.
- **Test** initial hypotheses with behavioral pilots. Building and calibrating simulation models will provide insights into the behavioral interventions that need field testing. Running pilots with target individuals or specific employer groups in a group plan will help test concepts and refine the value proposition.
- **Enhance** and roll-out the new value proposition. Based on the results of pilot programs, insurers can refine and enhance the value proposition for specific segments. Then, redesign of the marketing, distribution, product design, new business, operations, and servicing can occur with these changes in mind.

Some life insurers have already deployed the well-being value proposition and have consistently demonstrated superior performance.

Knowing your customer – An imperative for growth

The insurance industry continues to experience challenges in stimulating demand for its (often poorly understood) key products. The gap between the need for protection in a time of economic uncertainty and softening consumer demand highlights the how traditional insurance offerings are generally unresponsive to changing demographics, especially younger consumers.

However, there are potentially significant opportunities for companies that can change with the times. Both in the US and globally, accelerating demographic shifts are creating new and important customer segments that span a wide range of cultures, ages, socio-economic backgrounds, and family structures. As importantly, technological change has created new and potentially superior distribution and communication channels that are changing both the nature of the business and relationship management. We believe that successful carriers will most effectively take advantage of these transformational changes by understanding and in turn addressing households' holistic, long-term – even multigenerational – needs.

One of the best ways to create a holistic customer experience is via actionable consumer segmentation that incorporates multiple data sources to create a detailed understanding of consumers' demographic profiles and their psychographics (i.e., attitudes and behaviors). Armed with this information, insurers can address any significant gaps that consumers and advisors may face during their respective decision-making lifecycles. The end result will be value to the customer, including greater satisfaction and loyalty, as well as greater profitability for the insurer.

That said, optimal returns will occur only with a careful balance of customer and insurer goals. In order to achieve this, the carrier must break down product and channel silos to shift from a product to a customer focus. The goal is to align consumer segments with their desired channels, and thereby enable carriers to reach new segments and optimize their distribution channel strategy and investments.

The following table lists some of the key ways insurers can focus on consumers' holistic needs and extend their target markets.

Traditional insurance offerings are generally unresponsive to changing demographics.

Areas of focus

Build consumer research capabilities in:

- 1) Advanced analytics for better targeting and predictions;
- 2) Closed-loop consumer feedback processes to better understand their preferences.

Action items

- In order to better understand customer preferences and actions, use predictive modeling to analyze customer demographics, transactions, and behaviors
- Create enterprise-wide customer feedback channels that measure and track customer perceptions and behavioral intentions, including tracking /event driven quantitative research, ad hoc qualitative text analytics, ethnographic studies and social media listening posts to better gauge engagement/ sentiment.

Benefits

- Marketing strategy and customer retention initiatives will be based on hard data, which should result in improved targeting efforts, identification of appealing product combinations, and enhanced loyalty through a proactive retention strategy and better customer experiences.
- Better understanding of customers' preferences, needs, profitability, and price sensitivity. Ability to predict when consumers will have new needs and proactively match distribution channels and agents to the consumers who are most likely to purchase additional coverage.
- Proactively manage service failures and enact recovery/resolution processes through daily monitoring/feedback mechanisms.
- Engage in fact-based research outcomes that resonate emotionally with the consumer.

Utilize new technologies to:

- 1) Create a compelling and convenient multichannel experience to strengthen consumer trust and relationships.
- 2) Provide producers with sophisticated productivity enhancing tools that help them meet changing consumer needs, drive more effective acquisition strategies, and further expand the depth and breadth of relationships with consumers.
- Develop an integrated multi-channel strategy that enables producers and consumers to connect in an efficient and economical manner.
- Provide on-demand information to consumers through easy-to-use, self-service, interactive digital platforms and devices.
- Provide a seamless transition for the consumer between different lifecycle stages using an integrated software platform and technology infrastructure. Create a consistent look and feel and capability across platforms utilizing media rich tools.
- Develop social media strategies to better engage the customer, broaden brand awareness and appeal, and enable both electronic and word-of-mouth recommendations.
- Help maximize producer effectiveness through technology-based lead management tools and training in point of service electronic and social media.

- Provides customers with flexible options on how to interact (all through a consistent interface), which encourages an easy and pleasant customer experience.
- Maximizes available information that consumers can access anytime, anyhow and anywhere.
- Supports simple information transfer (e.g., summarizing policy terms and conditions) and positive customer experiences.
- Social media engagement can create additional brand "stickiness" by promoting increased external awareness and consideration. This should lead to more purchase opportunities. In addition, peer recommendations help build confidence in the brand and connect customers with each other.
- Regardless of platform, better facilitation and linkage of the shopping experience to the buying and service experience. This promotes a consistently positive customer experience, uniform branding, and increased retention and cross-selling opportunities.
- Optimize producer acquisition and lead management efforts via a workforce that is more aligned to the consumer segments that are comfortable working online and using media-rich digital tools. Moreover, the workforce will be more engaged as a result of optimization of resources, including back office and manager/mentor support/ development. This culture of partnership and mutual benefit can increase producer motivation and result in more and stronger consumer relationships.

Optimal returns will occur only with a careful balance of customer and insurer goals.

Areas of focus	Action items	Benefits
Broaden target market to address needs of underserved demographies. • Focus targeting strategies towards younger consumers; the less affluent; the middle market; and multicultural, multigenerational, and non-traditional families.	 Re-allocates resources toward segments that offer a potentially greater ROI. 	
		 Greater inclusiveness will drive brand awareness and consideration, increase sales opportunities, and raise brand perceptions and loyalty among non- traditional consumer segments.
Focus on holistic advice and needs driven product design and support it with	 Focus on products and solutions that address the consumers' overall financial health and wellness, as well as change with customers as they age. 	 Position carrier as a trusted lifetime financial advisor that can help policyholders achieve financial goals, not just protection against
an integrated, high touch, high tech selling strategy.	 Encourage transition from producer to holistic financial advisor. Maximize the "human touch" to foster relationships and sales, as well as optimize collaborative strategies. 	misfortune. Offering a collaborative selling strategy will help identify household solutions and ideally increase retention and customer referrals.
		 Streamlined and simplified product descriptions and purchase decision processes.
		 A diversified portfolio of products that effectively address consumers' individual needs; these products can be bundled for ease of purchase (e.g., universal life insurance with long term care).

Implications

- Consumer demographics, behaviors and expectations are very different than they used to be. In order to differentiate themselves and grow, insurers need to have a deeper understanding of them than in the past, and adopt strategies and tactics that meet consumers' long-term, holistic needs. Use of more advanced analytics techniques for data analysis, interpretation and application will help make this a reality.
- Distribution channels need to better incorporate current technology to provide a more tailored and customized experience for the different segments that carriers target. Doing so can facilitate unique and differentiated interaction with customers, as well as streamline and simplify research and purchases. In turn, this can significantly increase producer effectiveness and optimize channel economics.
- Fostering trust and confidence a feeling that "my agent/carrier really knows me" – will go a long way toward developing the long-term (instead of one-off) relationships that result in more cross-selling opportunities.

Creating a data science office

Most insurers are inundated with data and have difficulty figuring out what to do with all of it. The key is not just having more data, more number-crunching analysts, and more theoretical models, but instead identifying the right data. The best way to do this is via business savvy analysts who can ask the right strategic questions and develop smart models that combine insights from raw data, behavioral science, and unstructured data (on the web, in emails, call center recordings, video footage, social media sites, economic reports, and so on). In essence, business intelligence needs to transcend data, structure and process and be not just a precise science but also a well-integrated art.

What it takes to be an effective data scientist

The practitioners of this art are an emerging (and rare) breed: data scientists. A data scientist has extensive and well-integrated insights into human behavior, finance, economics, technology, and of course, sophisticated analytics. As if finding this combination of skills wasn't difficult enough, a data scientist also needs to have strong communication skills. First and foremost, he must ask the right questions of people and about things in order to extract the insights that provide leads for where to dig, and then present the resulting insights in a manner that makes sense to a variety of key business audiences. Accordingly, if an organization can find a good data scientist, then it can gain insights that positively shape its strategy and tactics – and gain them more quickly than less well-prepared competitors.

The following table highlights the five key competencies and related skills of a qualified data scientist.

A data science office's purpose is not to collect and analyze data for its own sake, but to help the company achieve its specific market goals and objectives.

	Competencies	Key skills	Business impact
1	Business or domain expertise	 Deep understanding of: Industry domain, including macro-economic effects and cycles, and key drivers; All aspects of the business (marketing, sales, distribution, operations, pricing, products, finance, risk, etc.). 	 Help determine which questions need answering to make the most appropriate decisions; Effectively articulate insights to help business leadership answer relevant questions in a timely manner.
2	Statistics	 Expertise in statistical techniques (e.g., regression analysis, cluster analysis, and optimization) and the tools and languages used to run the analysis (e.g., SAS or R); Identification and application of relevant statistical techniques for addressing different problems; Mathematical and strategic interpretation of results. 	 Generate insights in such a way that the businesses can clearly understand the quantifiable value; Enable the business to make clear trade-offs between and among choices, with a reasonable view into the most likely outcomes of each.
3	Programming	 Background in computer science and comfortable in programming in a variety of languages, including Java, Python, C++ or C#; Ability to determine the appropriate software packages or modules to run, and how easily they can be modified. 	 Build a forward-looking perspective on trends, using constantly evolving new computational techniques to solve increasingly complex business problems (e.g., machine learning, natural language processing, graph/social network analysis, neural nets, and simulation modelling); Ability to discern what can be built, bought, or obtained free from open source and determine business implications of each.
4	Database technology expertise	 Thorough understanding of: External and internal data sources; Data gathering, storing, and retrieval methods (Extract-Transform-Load); Accessing data from external sources (through screen scraping and data transfer protocols); Manipulating large big data stores (like Hadoop, Hive, Mahoot and a wide range of emerging big data technologies). 	 Combine the disparate data sources to generate very unique market, industry and customer insights; Understand emerging latent customer needs and provide inputs for high-impact offerings and services; Develop insightful, meaningful connection-paths with customers based on a deep understanding of their needs and wants.
5	Visualization and communications expertise	 Comfort with visual art and design to: Turn statistical and computational analysis into user-friendly graphs, charts, and animation; Create insightful data visualizations (e.g., motion charts, word maps) that highlight trends that may otherwise go unnoticed; Utilize visual media to deliver key message (e.g., reports, screens – from mobile screens to laptop/desktop screens to HD large visualization walls, interactive programs, and – perhaps soon – augmented reality glasses). 	 Enable those who aren't professional data analysts to effectively interpret data; Engage with senior management by speaking their language and translating data-driven insights into decisions and actions; Develop powerful, convincing messages for key stakeholders that positively influence their course of action.

As data scientists are in short supply, insurers should consider building a data science team of individuals who have complementary skills and collectively possess the main data science competencies.

While it may seem unrealistic to find a single individual with all the skills we list above, there are some data scientists who do, in fact, fit the profile. They may not be equally skilled in all areas, but often have the ability to round out their skills over time. They typically tend to be in high tech sectors where they have had the opportunities to develop these abilities as a matter of necessity.

Building and staffing a data science office: Build, rent or buy?

Given the high need and growing demand for data scientists, there are definitely not enough of them. Accordingly, it is important to consider how an insurer might develop a core talent pool of data scientists. As it is often the case when talent is in short supply, acquiring (i.e., buying) data scientist talent is an expensive but fairly quick option. It may make sense to consider hiring one or two key individuals who could provide the center of gravity for building out a data science group. A number of universities have started offering specialist undergraduate and graduate curricula that are focused on data science, which should help address growing demand in the relatively near future. Another interim alternative is to "rent" data scientists through a variety of different means - crowdsourcing (e.g., Kaggle), hiring freelancers, using new technology vendors and their specialists or consulting groups to solve problems, and engaging consulting firms who are creating these groups in-house.

The longer term and more enduring solution to the shortage of data scientists is to "build" them from within the organization, starting with individuals who possess at least some of the competencies we list above and can be trained in the other areas. For example, a business architect who has a computational background and liaises between business and technology groups can learn at least some of the analytical and visualization techniques that typify data scientists. Similarly, a business intelligence specialist who has sufficient understanding of the company's business and data environment can learn the analytical techniques that characterize data scientists. However, considering the extensive mathematical and computational skills necessary for analytics work, it arguably would be easier to train an analytics specialist in a particular business domain than to teach statistics and programming to someone who does not have the necessary foundation in these areas.

Another alternative for creating a data science office is to build a team of individuals who have complementary skills and collectively possess the five core competencies we list above. These "insight teams" would address high value business issues within tight time schedules. They initially would form something like a skunk works and rapidly experiment with new techniques and new applications to create practical insights for the organization. Once the team is fully functional and proving its worth to the rest of the organization, then the latter can attempt to replicate it in different parts of the business.

However, the truth is there is no silver bullet to addressing the current shortage of data scientists. For most insurers, the most effective near-term solution realistically lies in optimizing skills- and team-based approaches in order to start tackling existing business challenges.

Designing a data science operating model: Customizing the structure to the organization's needs

In order to develop a data science function that operates in close tandem with the business, it is important that its purpose be to help the company achieve specific market goals and objectives. When designing the function, ask yourself these four key strategic questions:

- **Value proposition**: How does the company define its competitive edge? Local customer insight? Innovative product offerings? Distribution mastery? Speed?
- Firm structure: How diverse are local country/ divisional offerings and go-to-market structures, and what shared services are appropriate? Should they be provided centrally or regionally?
- Capabilities, processes and skills: What capabilities, processes and skills does each region require? What are the company's inherent strengths in these areas? Where do they want to be best-in-class and where do they want to be best-in-cost?
- Technology platform: What are the company's technology assets and constraints?

Data science operating model: Key design considerations



Degree of control required

Closer control is typically required for:

- Continually aligning the business intelligence agenda with evolving business strategy
- Setting priorities, BI investment goals, and global budget support
- BI governance, best practices, metrics and measurement
- · Establishing /monitoring best practices
- Predictive and dynamic model development, visualization methods, etc.
- Scale economies related to external data acquisition; vendor negotiation, etc.



Prioritization of costs

Some BI functionality needs to "best in class":

- Regional/country-specific skills that are difficult to access elsewhere
- Market specific innovation in product, pricing, customer service etc., that are necessary to compete locally

Other BI functionality will be more "cost" efficient:

- Local data adaptations of centrally developed models
- Locally driven decisions that facilitate speed to market



Market information maturity implications: Less mature markets would require greater control and governance, as well as the application of more standardized methods and routines

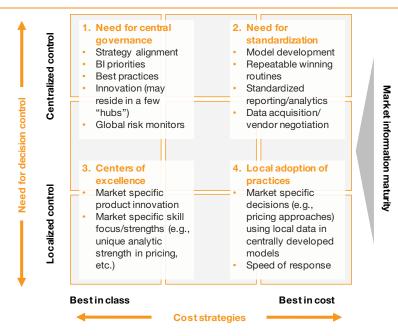
There are three key considerations when designing an enterprise wide data science structure: (a) degree of control necessary for effectively supporting business strategy; (b) prioritization of costs to align them with strategic imperatives; and (c) degree of information maturity of the various markets or divisions in scope.

Determining trade-offs: Cost, decision control and maturity

Every significant process and decision should be evaluated along four parameters: (a) need for central governance, (b) need for standardization, (c) need for creating a center of excellence, and (d) need for adopting local practices. The figure below illustrates how to optimize these parameters in the context of cost management, decision control, and information maturity.

This model will encourage the creation of a flexible and responsive hub and spoke model that centralizes in the hubs key decision science functions that need greater governance and control, and harnesses unique local market strengths in centers of excellence. The model localizes in regional or country-specific spokes functions or outputs that require local market data inputs, but adheres to central models and structures.

Designing a model in a systematic way that considers these enterprise-wide business goals has several tangible benefits. First, it will help to achieve an enterprise-wide strategy in a cost-effective, timely and meaningful way. Second, it will maximize the impact of scarce resources and skill sets. Third, it will encourage a well-governed information environment that is consistent and responsive throughout the enterprise. Fourth, it will promote agile decision-making at the local market level, while providing the strength of heavy-duty analytics from the center. Lastly, it will mitigate the expensive risks of duplication and redundancy, inconsistency, and inefficiency that can result from disaggregation, delayed decision making, and non-availability of appropriate skill sets and insights.



Implications

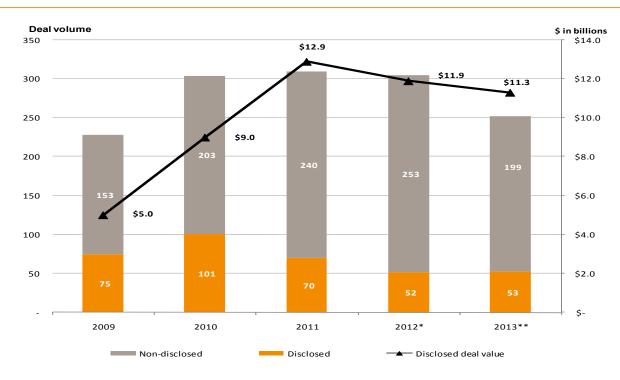
- The ideal data scientist has extensive business knowledge; statistical, programming and database technology expertise; and can cogently communicate with both technicians and generalists via the written and spoken word and visualizations that make the complex understandable. Obviously, individuals with this set of skills are few and far between, and they tend to be in high tech.
- Because of the increasing demand for data scientists and their scarcity, insurers (and companies in other industries) should consider if they want to build, rent, or buy them. Although buying or renting capabilities can be viable options and do offer the promise of immediate benefits we believe that building a data science function is the best long-term approach. Moreover, in light of the shortage of data scientists, a viable approach is creating a data science office of individuals who collectively possess the core competencies of the ideal data scientist.
- When determining how best to approach building a
 data science office, companies must match the ultimate
 outcome to their overall strategy, goals, and capabilities
 (i.e., processes, skills, and technology). More specifically,
 they should consider the degree of control necessary for
 effectively supporting business strategy, prioritize costs to
 align them with strategic imperatives, and the degree of
 information maturity of the various markets or divisions
 in scope.
- Insurers should evaluate every significant data science office process and decision along four parameters: (a) need for central governance, (b) need for standardization, (c) need for creating a center of excellence, and (d) need for adopting local practices. A hub and spoke model can optimize these parameters in the context of cost management, decision control, and information maturity. This model centralizes in the hub key decision science functions that need greater governance and control, and harnesses unique local market strengths in centers of excellence. The model localizes in regional or country-specific spokes functions or outputs that require local market data inputs, but adheres to central models and structures.

The insurance deals market – Still waiting for lift-off

The market expectations for insurance M&A activity in 2013 were positive, but deal activity and announced deal value fell a bit short of those expectations. The US economy continued to grow (albeit at a moderate pace), primarily as a result of the continued assistance of the Federal Reserve's bond buying program, which continues to keep interest rates near historic lows. However, this has negatively impacted insurance companies, given their reliance on investment income to support their liabilities and generate profits. While this environment has forced many insurers to evaluate their strategic direction and consider divesting/acquiring blocks of business consistent with new strategies, significant M&A activity has yet to materialize.

Insurance M&A deal volume declined in 2013. According to SNL, there were 252 insurance deals (excluding managed care) announced in 2013, compared to 305 in 2012. Total announced deal value decreased by \$600 million in 2013 to \$11.3 billion, from \$11.9 billion in 2012. The average disclosed deal value was \$213.2 million in 2013 - slightly lower than the average disclosed deal value of \$228.8 million in 2012. The two largest deals of the year occurred in the insurance brokerage space, with Hellman and Friedman agreeing to acquire HUB International for approximately \$4.4 billion and Madison Dearborn Partners reaching an agreement to acquire National Financial Partners Corp. for \$1.3 billion. These deals came on the heels of three megadeals involving insurance brokers and financial buyers in 2012: New Mountain capital's recapitalization of AmWINS Group, KKR's acquisition of Alliant Insurance Services and Onex Corporation's acquisition of USI Holdings.

Insurance M&A deal volume



Source: SNL and various other sources

^{*} Includes KKR & Co LP's \$1.8 billion acquisition of Alliant Insurance Services Inc not disclosed in SNL data.

^{**} Includes Hellman & Friedman LLC's \$4.4 billion acquisition of Hub International not disclosed in SNL data.

The largest insurance underwriter deals occurred within the life and health industry. This included Protective Life Insurance Company's acquisition of MONY Life Insurance Company for \$1.1 billion, SCOR's acquisition of the US life reinsurance operations of Assicurazioni Generali SpA for \$910 million, and Resolution's acquisition of Lincoln Benefit Life (an Allstate affiliate) for \$600 million. In addition to the disclosed deals in 2013 included in the table above, there were a number of significant transactions in 2013 that did not have disclosed deal values. Examples of such deals include Berkshire Hathaway's acquisition of a variable annuity block of business of approximately \$4 billion from CIGNA and Global Atlantic Financial Group's acquisition from Athene USA of Aviva USA's life insurance arm with \$10 billion in reserves, as well as the acquisition of Forethought Financial Group, Inc., which had a US statutory surplus of \$472 million as of December 31, 2012. Of the five life insurance deals mentioned, Protective Life Insurance and SCOR were strategic buyers while Resolution and Global Atlantic acted as financial buyers. The largest transaction in the property and casualty space included American Family Insurance's acquisition of Homesite Group for \$616 million. American Family was a strategic buyer, but purchased the entire target company instead of blocks of business that are out of favor, which has been a more common approach in the life and health space.

Unlike 2012, 2013 did not see blockbuster private equity backed deals, such as when Apollo-backed Athene USA announced the acquisition of Aviva USA for \$1.8 billion and Guggenheim announced the acquisition of Sun Life for \$1.4 billion. Both of these transactions closed during 2013 after rather lengthy regulatory approval processes. Private equity still remains active in the insurance industry overall, however, and some of the key players are focusing on the integration of prior acquisitions, while remaining opportunistic about future deals.

Implications

There are a number of reasons for the decline in insurance deal activity in 2013, including continued uncertainty about the health of the US and global economy and legislation that may affect the insurance industry (e.g., Dodd-Frank, tax reform, and Solvency II). Additionally, there were a number of transactions announced in the latter part of 2012 that did not close until well into 2013 due to an increased level of scrutiny by insurance regulators that delayed the necessary approval for closing. This extensive regulatory approval process may have kept some financial buyers (and therefore sellers) on the sidelines for much of 2013 as they focused on finalizing these transactions.

While the regulatory landscape in the US and abroad continues to evolve, there are a number of factors that could impact growth in M&A in the insurance industry in 2014 and beyond:

- Low investment yields It appears a low interest rate environment will continue at least in the near term, given the Federal Reserve's overall support of the \$85 billion a month bond buying program. This is likely to limit insurers' profitability, particularly in the life and annuity space, and have a significant impact on their valuation.
- Regulatory/political risks The US Federal Insurance Office, which was created under Dodd-Frank, recently issued a report on "modernizing" insurance regulation, the EU Council has recently confirmed its intent to implement Solvency II in 2016, and the National Association of Insurance Commissioners ("NAIC") recently formed a Private Equity Issues Working Group to develop procedures relating to private equity investment in and transactions with life insurers. Most insurers view this additional regulation as an added cost because it is likely to result in higher capital requirements for many of them.

- **Strategic initiatives** As a result of the slow economic recovery, negative reserve development in certain property & casualty lines of business, and the low interest rate environment, many insurers have analyzed their strategic objectives and are focusing on their core competencies. While this has been a driver of divestitures in the insurance industry over the last few years, many companies have divested non-core businesses but have yet to aggressively pursue their internal strategies for growth in core businesses. Valuation gaps between buyers and sellers may persist if potential sellers remain aggressive in their valuations of blocks of business they wish to sell.
- Private equity Private equity interest in the sector
 has been a key driver of successful deal activity over the
 last few years and we expect it will continue to drive
 deal activity in 2014. New entrants could potentially add
 liquidity and close valuation gaps between buyers and
 sellers.
- Alternative capital raising initiatives While we have seen increased interest from strategic and financial buyers in the insurance M&A market over the last few years, there continues to be a lack of seller interest. From 2010 through 2012, we saw a fair amount of distressed sellers seeking to exit certain lines of business in an effort to strengthen their balance sheets and focus on core lines of business. However, with financial market improvement and a slowing rebounding US economy, sellers are beginning to view public offerings of securities (IPOs) more favorably, as evidenced by the IPOs of ING's US life business and Harbinger group's IPO of Fidelity and Guaranty Life in 2013.
- **Technology** Technology is increasingly important as insurers focus on analytics, intelligent pricing, anti-fraud measures, telematics, and administrative efficiency. Enhanced technology is critical from both pro-active and conservative insurance companies. In order for them to meet their strategic goals, it may be most efficient for some insurance companies to acquire technological capabilities rather than develop them internally.

There are a number of reasons for the decline in insurance deal activity in 2013, including continued uncertainty about the health of the US and global economy and legislation that may affect the insurance industry.

Operations



Overcoming common obstacles in policy administration system (PAS) transformations

Overcoming common obstacles in policy administration system (PAS) transformations

We are seeing unprecedented investment by insurance carriers in policy administration system (PAS) transformations. The convergence of aging legacy platforms, complex market demands, and a more mature vendor landscape has ushered in a unique period in which it is possible for insurance carriers to change their policy administration systems with less risk than ever before. Carriers that make the change successfully will be well positioned to leapfrog larger, better-funded competitors thanks to improved product flexibility and timeliness, not to mention lower IT costs.

Our observations and experience suggest that PAS transformations will continue to be a top priority for insurers – regardless of size and product mix – in 2014.

PAS transformations are benefitting carriers in three main areas: 1) speed to market, 2) operational efficiency and 3) IT rationalization. More importantly, modern policy systems also allow carriers to improve the customer and agent experience, support multiple distribution systems, allow a single view of the customer, and enhance analytics capabilities.

However, even though it likely will be the largest single project investment a carrier ever pursues, most new PAS implementations are "challenged," and only a few deliver transformative capabilities to the business. After surveying industry, we have found that only 30 percent of policy administration projects meet the traditional definition of success in terms of time, budget, and scope. Moreover, only about ten percent of transformations realize their full business benefits.

How can insurers improve results? First and foremost, they should take advantage of the opportunity a transformation offers to positively impact on the organization's growth and profitability. In an effective transformation, carriers can 1) continually map daily program management decisions to the original benefits case, 2) rapidly deliver code in an iterative manner, and 3) utilize a policy-specific framework to proactively identify and address common project challenges.

More specifically, successful transformations overcome potentially major obstacles by developing and enhancing capabilities in the following ten areas:

Core business capabilities

- 1. **Customer and agent experience** Improve customer and agent interaction through the use of consistent user interfaces and work flow across systems (e.g., policy, billing and claims). For example, utilize a portal solution that integrates and aggregates information from multiple cross-enterprise applications.
- 2. **Underwriting and rating** Align the program's tasks to meet the carrier's goals for underwriting and pricing automation. For example, an expert system strategy for personal auto would seek to automate the majority of submissions and provide sophisticated rating to price risks automatically with little human intervention. Alternatively, a human system strategy for commercial specialty products would seek to automate repetitive and manual tasks while providing rating flexibility to experienced underwriters who are capable of evaluating risk.
- 3. **Data and analytics** In order to prepare for information demand and avoid expensive rework later, plan for likely data analysis early in the process. Employ a balanced approach to strategic (e.g. product growth and profitability, risk concentration) and operational objectives (e.g. process metrics, work queue volumes and fraud detection).
- 4. **Forms and documents** Consolidate and standardize forms where possible to reduce development effort and minimize future business and IT maintenance. Utilize a dedicated forms team to proactively manage what is typically a large volume of forms with many data mappings and inference rules.
- 5. **Data migration** Identify legacy data quality issues early and develop custom rules and scripts to fix the data prior to migration. In addition, carriers should consider which migration approach is most appropriate for their implementation (i.e., big bang versus rolling migration at policy renewal).

Most PAS transformations do not achieve many of their goals. However, there are several distinct ways to improve results.

Core delivery capabilities

- 1. Program management Develop a sound business case and tie program decisions, program plan, and change control decisions to a quantifiable return on investment calculations. Carriers should assign a fully dedicated executive-level resource to lead the project and promote fact-based decisions, quality deliverables, and benefits that are within scope, schedule, and budget.
- **2. People and change management** In order to mitigate operational impacts and speed user adoption, utilize a change management framework that a) engages the right stakeholders, b) assesses the impact/support necessary for managing sensitive changes (e.g., staff reduction/reassignments), and to effectively navigate people through change c) aligns HR strategies to the business strategy.
- 3. Integration and architecture Implement modern enterprise architectures prior to or early in the policy transformation to mitigate program risk. For example, utilize an enterprise service bus and an abstract enterprise data model that reconciles disparate data across multiple systems, promotes reusable services, and speeds project implementation.
- **4. Program quality and testing** Utilize a "test first" approach in which risk-based tests are performed during the development phase, thus reducing the volume of defects in later system integration testing and user acceptance testing phases.
- **5. Supplier management** Partner with a general contractor to address sourcing needs (e.g., skill gaps, variable capacity in case of the need to quickly ramp up or down resources, optimized mix of onshore and offshore resources), provide industry experience across a variety of perspectives, and share accountability for delivering agreed upon scope within planned schedule and budget, thereby mitigating implementation risk.

Implications

- While a PAS transformation is an inherently complicated process, the resulting platform should reduce complexity and business risk, be more economical to run and manage on a daily basis, and simplify an organization's ability to deliver value to users and policyholders.
- Carriers that focus on their policy administration projects' core delivery capabilities tend to design, manage, and govern the projects on time and within budget.
- Carriers that focus on increased growth and profitability
 will need to optimize their policy administration
 transformation by focusing on core business capabilities.
 By doing both, they can make substantial improvements
 to their business and surpass the competition.

Tax



Insurance taxation

Legislative outlook

Congress faces considerable obstacles to enacting tax reform legislation and other significant tax legislation in 2014, given ongoing political differences over federal revenues, competing legislative priorities, and a change of leadership at the Finance Committee. While it appears unlikely that the current Congress will enact comprehensive tax reform, the ability of a divided Congress to reach a limited budget deal in late 2013 to avoid the risk of another government shutdown provides hope for enactment this year of "tax extenders" legislation to retroactively renew the more than 50 business and individual tax provisions, including the subpart F exception for active financing income, that expired on December 31, 2013.

Obama Administration action

President Obama is expected to submit his FY 2014 federal budget to Congress on May 4, 2014, and we expect this budget will build on recent Administration budgets that have set aside certain revenue-raising provisions (discussed below) for business tax reform. In his January 28, 2014 State of the Union address, President Obama reaffirmed his proposal from last year to use some revenue from the "transition to tax reform" to fund new infrastructure spending, an idea which Congressional Republicans previously rejected.

While it appears unlikely that the current Congress will enact comprehensive tax reform, there is hope for enactment of "tax extenders" legislation to retroactively renew the more than 50 business and individual tax provisions.

Congressional action

Both Congressional tax-writing committees have undertaken extensive public hearings and "back room" work to develop proposals to reform the US tax system. Tax reform activities in 2013 included a series of discussion drafts, bipartisan working groups, bipartisan meetings to discuss options papers, and roadshows, in which the two tax committee chairmen sought to build public support for overhauling the US tax code.

House Ways and Means Committee Chairman Dave Camp (R-MI) remains committed to introducing a comprehensive tax reform with reduced rates for both corporations and individuals and a modern, competitive international tax system. Base-broadening will be part of any revenue-neutral tax reform proposal, but Chairman Camp has not indicated what particular exclusions, deductions, credits, and other preferences (referred to as tax expenditures) would be eliminated or modified to pay for rate reductions.

The release of a comprehensive tax reform bill in 2014 by Chairman Camp would be a significant accomplishment in terms of defining a path forward for reducing corporate and individual tax rates, reforming US international tax rules, and simplifying the code.

Senator Ron Wyden (D-OR) is the new chairman of the Senate Finance Committee, following the Senate's confirmation of Senator Max Baucus (D-MT) to be US ambassador to China. Senator Wyden previously has introduced bills expressing his own views on comprehensive tax reform. Senator Wyden on February 6, 2014 said his initial focus will be on renewing business and individual tax provisions that expired at the end of 2013 "as a bridge to tax reform."

Chairman Camp has said tax extenders should be addressed in the context of comprehensive tax reform, but Congress is expected to address expired tax provisions at some point this year if the House and Senate cannot agree on tax reform legislation.

There are several possible, insurance-related revenue-raising provisions to reform taxation of insurance companies.

Insurance-related revenue raisers

The Administration's business reform framework includes several possible revenue-increase measures specific to insurance companies. The insurance-related revenue-raising provisions to reform taxation of insurance companies and products include:

- Disallow the deduction for non-taxed reinsurance premiums paid to affiliates. The proposal would disallow any deduction to covered insurance companies for the full amount of reinsurance premiums paid to foreign affiliated insurance companies if the premium is not subject to US income taxation. The proposal would provide a corresponding exclusion from income for reinsurance recovered with respect to a reinsurance arrangement for which the premium deduction has been disallowed. The proposal also would provide an exclusion from income for ceding commissions received with respect to a reinsurance arrangement for which the premium deduction has been disallowed. The exclusions are intended to apply only to the extent the corresponding premium deduction is disallowed. The proposal would provide that a foreign corporation that is paid a premium from an affiliate that would otherwise be denied a deduction under this provision may elect to treat those premiums and the associated investment income as income effectively connected with the conduct of a trade or business in the United States. If such election is made, the disallowance provisions would not apply.
- Modify rules that apply to sales of life insurance contracts, including transfer for value rules. This proposal would create a reporting requirement for the purchases of any interest in an existing life insurance contract with a death benefit equal to or exceeding \$500,000. The proposal also would modify the transfer-for-value rule to ensure that exceptions to that rule would not apply to buyers of policies, and would apply to sales or assignment of interests in life insurance policies and payments of death benefits for tax years beginning after December 31, 2013.

• Modify dividends received deduction for life insurance company separate accounts. This proposal would repeal the present-law proration rules for life insurance companies and replace them with two new rules, one for the general account, and one for separate accounts. For the general account, a 15-percent reduction rule would apply to the company's deductions, calculated with respect to the dividends received deduction, tax exempt interest, policy cash values of the company, similar to the property and casualty insurance company proration rule.

For separate accounts, the proposal would apply a rule similar to the pro-rata interest disallowance limitation rules that apply to corporations that are not insurers with respect to the DRD in situations in which the corporation has a diminished risk of loss with respect to the stock. The rule would apply in the same proportion as the mean of the reserves for the separate account bears to the mean of the total assets of the separate account. The proposal would be effective for tax years beginning after December 31, 2013.

• Expand pro rata interest expense disallowance for company-owned life insurance ("COLI"). The Administration's proposal would deny a pro rata portion of the interest deduction of a company, based on the unborrowed cash value of COLI policies on the lives of anyone other than 20-percent owners, repealing the exception to the interest disallowance rule for COLI policies on the lives of individuals who are officers, directors, or employees. The proposal would apply to contracts issued after December 31, 2013, in tax years ending after that date. For this purpose, any change in the contract would be treated as a new contract except that in the case of a master contract, the addition of covered lives would be treated as a new contract only with respect to the additional covered lives.

There was little published administrative tax guidance from the IRS and Treasury related to insurance in 2013, but there were other tax developments that could change the future landscape for insurers.

- Require information reporting for private separate accounts of life insurance companies. The proposal would impose information reporting requirements with respect to life insurance, endowment, or annuity contracts, if any portion of the cash value is invested in a private separate account, provided the investment represents at least 10% of the value of the account. The proposal defines a "private" separate account as any separate account of an insurance company with respect to which related persons hold annuity, endowment, or life insurance contracts whose aggregate cash values represent at least 10% of the value of the assets in the separate account.
- Repeal special estimated tax payment provision for insurance companies under section 847. The proposal would repeal IRC Section 847 and would include the entire balance of an existing special loss discount account in income in the first tax year beginning after 2013. Alternatively, the proposal would permit an election to include the balance in income ratably over four years. Existing special estimated tax payments would be applied against the liability created by the income inclusion.

These insurance provisions were all previously included in the President's budget proposals for prior fiscal years.

Administrative developments

There was little published administrative tax guidance from the Internal Revenue Service (IRS) and Treasury related to insurance in 2013, but there were other tax developments that could change the future landscape for insurers in various different lines of business:

• Life insurers. The IRS published guidance acknowledging that the statutory reserve cap that applies to tax reserves of a life insurance company includes deficiency reserves. Although this was already widely assumed to be the case, the IRS ruling drew renewed attention to the need for further guidance under Actuarial Guideline 43 (AG 43), which addresses annuity contracts with certain guaranteed benefits. More broadly, it drew renewed attention to the steps the IRS might take to address tax issues arising under Life Principles-Based Reserves (PBR).

- Property and casualty insurers. The Tax Court's decision in Acuity v. Commissioner, T.C. Memo 2013-209, confirmed that a company's unpaid losses were "fair and reasonable" within the meaning of the relevant regulations, and were required to be used for tax purposes, where they were determined by credentialed actuaries applying recognized actuarial standards. The court accorded no weight to the IRS's independent computations or its assertion that the reserves included an "implicit margin." It is unclear how the IRS will respond to this decision in the long run, or whether it will result in fewer challenges to unpaid losses.
- Health insurers. The IRS and Treasury Department published regulations to implement further the Affordable Care Act. In particular, the IRS and Treasury published final regulations providing guidance on the Health Insurance Providers Fee. This fee will apply for the first time in 2014 and will require "covered entities" generally entities that provide health insurance for any US health risk to file a new form to report net premiums written, which in turn the IRS will use to compute that entity's liability for the fee. In addition, the IRS and Treasury published final regulations concerning the Medical Loss Ratio requirement that Blue Cross organizations must satisfy to be eligible for the special benefits that apply to Blue Cross organizations under section 833 of the Internal Revenue Code.
- *Captive insurance companies*. During 2013, the IRS continued to press its position that in order for an arrangement to qualify as insurance, risk must be distributed among a sufficiently large number of policyholders. The IRS and taxpayers are still evaluating the extent to which a recent Tax Court case, Rent-A-Center v. Commissioner, 142 T.C. 1 (January 14, 2014), may affect the tax analysis for captive insurance. In that case, the Tax Court allowed a deduction as insurance premiums for amounts paid to a captive insurer on behalf of its sibling corporations. The court did not, as expected, address the relevance of the number of policyholders or the concentration of risks in a small number of insureds. During 2013, the IRS also continued to express skepticism about a number of captive insurance companies that are formed to take advantage of benefits that apply to small insurance companies.

As they have done in prior years, the IRS and Treasury jointly issued a Priority Guidance Plan outlining guidance it intended to work on during the 2012-2013 year. The plan continues to focus more on life than property and casualty insurance companies. The following insurance-specific projects were listed as priority items. Many carried over from last year's plan:

- Final regulations under §72 on the exchange of property for an annuity contract. Proposed regulations were published on October 18, 2006.
- Guidance on annuity contracts with a long-term care insurance feature under §§72 and 7702B. (Published as Notice 2011-68)
- Guidance clarifying which table should be used for §807(d)(2) purposes when there is more than one applicable table in the 2001 CSO mortality table.
- Revenue ruling on the determination of the company's share and policyholders' share of the net investment income of a life insurance company under §812.
- Revenue ruling under §801 addressing the application of Revenue Ruling 2005-40 or Revenue Ruling 92-93 to health insurance arrangements that are sponsored by a single employer.
- Guidance clarifying whether the Conditional Tail
 Expectation Amount computed under AG 43 should be
 taken into account for purposes of the Reserve Ratio
 Test under §816(a) and the Statutory Reserve Cap under
 §807(d)(6).
- Guidance on exchanges under §1035 of annuities for longterm care insurance contracts.
- Regulations under §7702 defining cash surrender value.

It remains uncertain how many items they will be able to complete by June 30, which is the end of the guidance plan year.

Implications

- Insurers should closely monitor legislative developments pertaining to taxation of overseas profits, and depending on any what transpires, re-evaluate their incentives to shift and leave profits offshore.
- Even in the absence of comprehensive Tax Reform, the Obama Administration's budget proposals include several possible revenue-increase measures specific to insurance companies, and life products in particular. Insurers will need to stay abreast of the status of these measures both in order to address them internally and educate their policyholders on their potential implications.
- In addition to guidance that is promised on the 2012-2013 Priority Guidance Plan, insurers should monitor longer-term trends, including the adoption of Life PBR, continued challenges of captive insurance arrangements, and the IRS's response to the Acuity case in its examinations of unpaid loss reserves.

Insurance modernization

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