



# Second Exposure Draft of Actuarial Standard of Practice No. 4 Released

By William B. Fornia

*Author's note: The following was prepared for an audience of non-actuaries in early February 2020. It has been lightly edited for purposes of this SIPF newsletter and appears with permission.*

On Monday Jan. 27, 2020, the Actuarial Standards Board released their long awaited second exposure draft of Actuarial Standard of Practice No. 4 pertaining to measuring pension liabilities and costs. This has been extremely controversial in the public pension community, as the first draft would have required—for the first time—the calculation and disclosure of a low-risk liability calculation. This value has been known by various names, including “Market Value of Liability (MVL),” “Solvency Value,” and “Investment Risk Disclosure Measure.”

MVL is widely rejected by the public pension community as a meaningful measure. But MVL is widely embraced by certain academics and financial professionals as the “true” or “correct” liability. While MVL has some relevance for private plans covered under ERISA that can terminate and settle their liabilities, it is inapplicable for public pensions that have not and often cannot. This has been a significant dispute for nearly 20 years. Sixty-seven comments letters were received on the first exposure draft, including Pension Trustee Advisors, formal and informal groups of public pension actuaries, several public retirement systems, and jointly from NASRA, NCPERS and NCTR. These generally refuted the appropriateness of the proposed MVL measure. But there were many supporters of the measure as well.

Public pensions measure their costs and liabilities on a going-concern basis based on the expected return on plan assets. This is analogous to how individuals save for retirement—based on



what they anticipate needing and the investment returns they anticipate earning. MVL is based only on plan benefits earned as of the measurement date and a low-risk rate of return. Because of the lower discount rates, MVL is generally a significantly higher number than the actuarial liability reported by the pension systems. This has led to misleading statements that the systems are understating their “true” liabilities.

If the Actuarial Standard of Practice had embraced MVL, misleading conclusions would likely result. In their comment letter to the Actuarial Standards Board, NASRA, NCTR and NCPERS wrote: “... we believe that such a measure will be used to mislead stakeholders—policymakers, the media, pension plan participants, and the general public—about the condition of the pension plan.”

While the ASB did not reject an MVL-type measure, they did make some helpful and logical changes to the required disclosure requirements of the ASOP.

If this exposure draft is adopted, which is likely, pension actuaries (including public pension actuaries) will be required to calculate

and disclose a “Low-Default-Risk Obligation Measure.” There is more flexibility in this “LDROM” vis-à-vis the MVL, including:

- MVL is calculated based only on accrued benefits, LDROM may be calculated on any “immediate gain” actuarial method, which typically could include either the same method as used in the standard actuarial valuation or the MVL.
- If benefits are affected by the assumed discount rate or investment return, the actuary may reflect this impact. This may be significant for plans with variable benefits dependent upon the funded status of the plan.
- The discount rate selected is not prescribed but may include any one of a number of low-default-risk fixed income rates.
- The disclosure asks for “commentary to help the intended user understand the significance of the low-default-risk obligation measure with respect to the funded status of the plan, plan contributions, and the security of participant benefits.” This allows extensive clarification, including citing the ASOP explicit statement that, “The calculation and disclosure of this additional measure is not intended to suggest that this is the ‘right’ liability measure for a pension plan.”

This flexibility raises the significant question when complying with the LDROM measure—**whether to report an MVL or the funding liability at a low-risk discount rate.** Table 1 shows a plan’s liabilities under different measures:

Table 1  
Public Pension Plan’s Liabilities Under Different Measures

Actuarial Basis	Accrued Benefits Only	Standard Actuarial Valuation
Low-Risk discount rate	\$12 billion	\$15 billion
Expected Return on Plan Assets	\$8 billion	\$10 billion

In Table 1, the plan is reporting liabilities of \$10 billion under the funding valuation basis. The MVL is \$12 billion. If MVL were disclosed, there could be a misleading interpretation that this is the “true” liability, and that \$10 billion is an understatement.

But if the system instead disclosed \$15 billion, the system could explain that this is simply the plan liability if invested 100 percent in low-risk investments, rather than the balanced portfolio of higher returning investments. The system could further comment that the expected value of their investment strategy is the \$5 billion difference. Although the number \$15 billion is larger than the number \$12 billion, this approach could result in more clarity and a better understanding of the reasons for the difference.

**This is an important strategic disclosure and communication decision for systems and their advisors.**

The ASOP exposure draft also includes specifications of a Reasonable Actuarial Determined Contribution, clarifies certain disclosures, and expands on acceptable amortization methods. The full exposure draft can be found at <https://tinyurl.com/ASOP4ED2020>

Comments are due by April 30, 2020 (expected to be extended), and we therefore anticipate that this new ASOP would be effective in 2021. We encourage retirement systems to work with their actuaries and advisors to address key issues with this new ASOP, including:

- When disclosing an LDROM, should this be the MVL, with risk of misinterpretation, or the larger liability calculated on the same method as the funding liability?
- How should this calculation be made considering adjustable benefits and inflation assumptions?
- Does our actuarially determined contribution comply with the new ASOP?
- Do we want to issue a comment on this exposure draft? ■



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# COVID-19, Unknown Unknowns, and Public Finance on the Fly

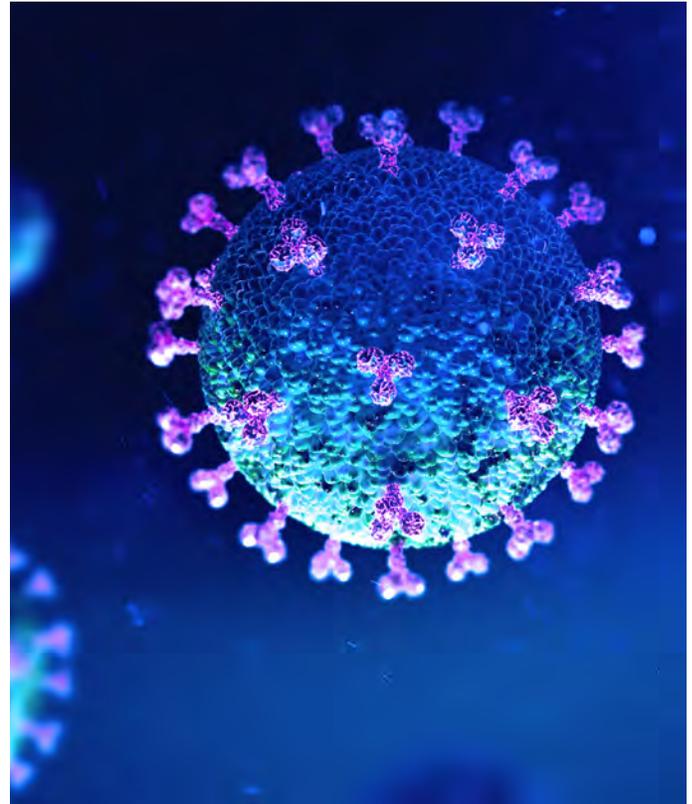
By Greg Fann

*“Reports that say that something hasn’t happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don’t know we don’t know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones.”*

—Secretary of Defense Donald Rumsfeld, 2002

A few days before “shelter in place” became a common part of our lexicon, I returned home from the office one afternoon and told my wife I had a nice chat with the *New York Times*. She was a little surprised. It wasn’t because I infrequently speak to the media; it was because the nuanced (but fascinating) financial dynamics of policy implications that I usually speak to the media about seemed less pressing during a dangerous pandemic. When I told her that the discussion was related to the coronavirus (aka COVID-19), the subject matter registered as plausible, but the noted conversation with me struck her as even more perplexing. “Do you know anything about the coronavirus?” she asked. It was a fair question given that we have learned about the novel virus together through daily news updates, and a major media organization wouldn’t be calling her to get an expert’s take.

Thankfully, the questions I was asked were not clinical in nature. They were twofold and related to the impact on the health insurance industry. First, should consumers expect premiums to rise? More importantly, were risk-assuming insurers prepared for this and would they be able to pay associated claims? I liked the questions for three reasons: I knew how to answer them, they were at the heart of what insurance is all about, and I had good news to share at a time when good news was needed.



While not every insurer may have been fully prepared and certainly no insurer planned for this pandemic (and the reactive government response) with any degree of timing or specificity, the insurance industry as a whole and the financial system in general were ready. Even though we couldn’t predict what was to come, preparations had been made to address unknown events that generate significant financial consequences. This article explores the historical account of those preparations that benefit insurers, insurance consumers, and the greater societal good. While such risks are not readily considered by the general public, the risk-management-focused insurance industry has prepared for “unknown unknowns” to be ready for a time such as this.

## THE BUSINESS OF INSURANCE

Insurance is risky business; that is its fundamental nature. The usual discussion of health insurance today is centered around social policy and distracts us from pure insurance principles, but all insurance exists because of a mutually beneficial exchange<sup>1</sup> between one party that wants to reduce its risk and another party willing to assume that risk for an appropriate financial

consideration. The party reducing its risk requires some guarantee that the risk-assuming party has the financial capacity to fulfill such a requirement.

Accordingly, rules containing complex mathematical formulas have been established to provide such assurance. Generally, these rules determine the minimum amount of capital (or surplus) that a risk-assuming entity must retain to satisfy its obligation in good times and bad times. While individual risks are not predictable, the business of insurance involves preparing for and managing unknown risks.

### ADEQUATE CAPITALIZATION

Surplus requirements determine the amount of financial capital that a licensed insurer is required to hold. It is impractical for an insurance company to obtain and maintain a level of surplus that would result in absolute immunity of financial danger. At the same time, insurance companies should have surplus levels that minimize the possibility of ever falling below minimum levels of necessary capitalization.

Various standards have been developed as required minimum surplus levels. An early, simplistic method was a fixed dollar surplus requirement. As this standard does not appropriately adjust to an insurance company's size, it was replaced in many jurisdictions by a ratio of surplus to annual revenue. A consideration of "surplus as a percentage of revenue" is commonly known as SAPOR and offers a transparent calculation with surplus requirements varying by insurer size. Unfortunately, the SAPOR statistic is also overly simplistic and does not consider an individual insurer's risk profile.

Insurance company insolvencies in the late 1980s and early 1990s led the National Association of Insurance Commissioners (NAIC) to establish a working group to consider a more rigorous calculation reflecting the inherent risk of an insurer's business to determine a minimum capital level; specifically, the working group believed companies with greater risks should be expected to hold higher amounts of capital. The group studied companies that had failed or exhibited weak financial condition to better understand indicators of potential financial trouble.

The resulting risk-based capital (RBC) construct is more refined than earlier, simpler assessments of capital adequacy. RBC measures consider not only an insurer's size, but also its growth rate and various risk exposures. As RBC results are widely used and reported, the process leads to RBC being a conveniently used internal tracking measure as well.

### PUBLIC REQUIREMENTS: RBC USES AND LIMITATIONS

Health insurance companies require surplus for many reasons, including support for company reserves, protection from adverse events, and funding of future capital investments and growth. Insurance regulators are generally not privileged to

have a full qualitative sense of the various risk exposures of the many companies that they monitor; RBC models provide an early warning system and a measure of capital adequacy determined quantitatively by insurer risk levels. RBC should not be considered a stand-alone tool for determining financial solvency of an insurance company; it is a formulaic calculation that provides an indicator of potential trouble.

A major RBC weakness is that it lacks a qualitative assessment of ongoing risk and provides only a retrospective viewpoint of enrollment, premiums and other measures; it does not capture changing dynamics in regulatory rules or population health. In terms of the coronavirus, RBC models could not project its timing or specific impacts but do incorporate factors based on historical results that include prior pandemic occurrences.

RBC calculations do not offer an opinion regarding an ideal or an excessive surplus level. Despite this, regulatory considerations around maximum RBC ratio surplus levels have been a discussion topic since the measure was adopted. Some states, notably Pennsylvania, have developed RBC ranges for certain nonprofit health insurers and have recognized a size distinction that suggests higher RBC ratios and target ranges are appropriate for smaller health insurers.

### PRIVATE REQUIREMENTS: A SIGNAL OF FINANCIAL STRENGTH

The Blue Cross Blue Shield Association (BCBSA) owns and manages the Blue trademarks; while used internationally in 170 countries, the trademarks are primarily associated domestically with licensure granted to independent companies offering health insurance and employee health benefits in exclusive geographic territories. The association of 36 independent and locally operated Blue Cross Blue Shield companies provides health insurance to over 100 million people in the United States.

Each licensee has formal requirements that it must meet to maintain good standing within the association. This includes semi-annual submission of RBC reports. The association uses these reports to assess and monitor the financial condition of its member companies. Each licensee must maintain RBC ratios greater than 200 percent of an "Authorized Control Level" to retain licensure of the Blue trademarks. The 200 percent ratio is intentionally set at the highest of four threshold levels in the NAIC Risk-Based Capital Model Act. While the BCBSA regards a 200 percent HRBC ratio as an unacceptable level, it also begins formally monitoring BCBSA-licensed companies whose RBC ratio falls below 375 percent as an early warning mechanism and facilitation of a process to establish corrective measures. Maintenance of a higher minimum level of capital helps BCBSA-licensed companies communicate a higher level of brand integrity and financial strength to stakeholders.

## MINIMAL VS. OPTIMAL

Surplus adequacy is usually characterized in two realms. Minimum capital is defined in the regulatory realm and is largely formulaic in nature. RBC provides a measure for a minimum regulatory capital standard, but that measure is not the full amount of capital/surplus that an insurer needs to hold to meet its objectives and maintain an appropriate level<sup>2</sup> of risk exposure.

Optimal surplus reflects corporate-specific objectives and is generally expressed as a preferred RBC range to maximize corporate security, financial efficiency, and furtherance of corporate goals. As each insurance company is unique, determination of an optimal surplus range is specific to the unique circumstances of each organization. A sample report highlighting such an assessment can be found [here](#).

Optimal surplus is of mutual interest to all stakeholders. In ordinary circumstances, required surplus generally increases with growth in enrollment and health care expenditures. As costs rise and companies' revenues are generally growing, a continuous contribution to surplus is usually required to maintain a constant RBC ratio. Unusual events such as the coronavirus pandemic can cause surplus to diminish; premium rates may rise in the future to rebuild surplus levels, but insurers must be mindful of remaining competitive in the marketplace and regulatory rate review, which could limit attempts to rapidly reestablish surplus levels through higher premiums.

## FACTORS THAT IMPACT OPTIMAL SURPLUS

Insurance companies are vulnerable to risks that not only take time to recognize, but also require time to respond and implement corrections. From a consumer [perspective](#), "insurers set their prices for a whole year so you don't have to worry about any immediate jumps in costs." An insurer's analytical capabilities, its business distribution, and the regulatory environment will influence its response timeline. As sustained periods of adverse conditions can cause significant losses, insurance companies need surplus levels to withstand difficult times, protect consumers and ultimately prevent corporate insolvency.

Each corporation is inherently different, and capital needs are determined by each insurer's unique circumstances, business requirements, and management objectives. Corporate structure and access to outside capital play a role in determining an optimal surplus range.

## ASSESSMENT OF OPTIMAL SURPLUS RANGE

Insurers periodically assess their optimal surplus range. This is a prudent exercise for obvious and less intuitive reasons:

**Public Interest**—A [question](#) on the mind of insurance consumers is of the form, "Should I worry about my health insurer being able to pay for the costs?" Periodic assessment of an optimal surplus range and continuous maintenance of surplus level serve the public well. In ordinary circumstances, surplus requirements

generally increase with growth in enrollment and health care expenditures.

**Risk Assessment**—Without a formal assessment, many insurance organizations do not have a strong sense of what their optimal surplus range is, nor do they understand the likelihood and magnitude of a significant loss over a multiple-year period. A thorough assessment can project potential losses over multiple time horizons.

**Risk Tolerance Discernment**—An optimal surplus range is dependent on the risk tolerance of corporate management. It may sound surprising, but companies that have not deliberately thought about it do not know what their risk tolerance is and likely have disparate views among management teams. Defining risk tolerance in terms of probabilities of being in a financially challenged position provides clarity of a company's view toward risk tolerance.

**Tangential Learnings**—A proper determination of an optimal surplus range investigates corporate processes and assesses strengths and weaknesses. The comprehensive process may reveal opportunities to enhance certain functions that are tangentially related to the project scope.

**Understanding of Risk Components**—An external review of risk components often reveals items that are not on the short list of its management teams' concerns.

## THE ACA/CORONAVIRUS STORM

In my 26 years as a health actuary, I have witnessed significant growth in private insurance intended to cover Medicare and Medicaid beneficiaries, complementing the traditional market of group benefits and the smaller individual market. Medicare and Medicaid are traditionally government-funded programs without private insurance risk. The private market mechanisms allow insurers to assume financial responsibility for medical care related to eligible beneficiaries and contract with the government to provide care at similar cost levels. The marriage of health insurance and public finance is carefully structured and has worked reasonably well.

The Affordable Care Act (ACA), signed into law in 2010, implemented a new flavor of public finance in insurance markets. Rather than establishing a new standalone government program like Medicare and Medicaid, the ACA utilized the existing private system and injected income-based subsidies into markets. Unlike Medicare and Medicaid, the public finance component of the ACA is not based on historical costs. Rather, its member-level funding is open-ended and constructed to target consumer net premiums as a percentage of their income. Like Medicare and Medicaid, financing formulas are prescriptive in nature.

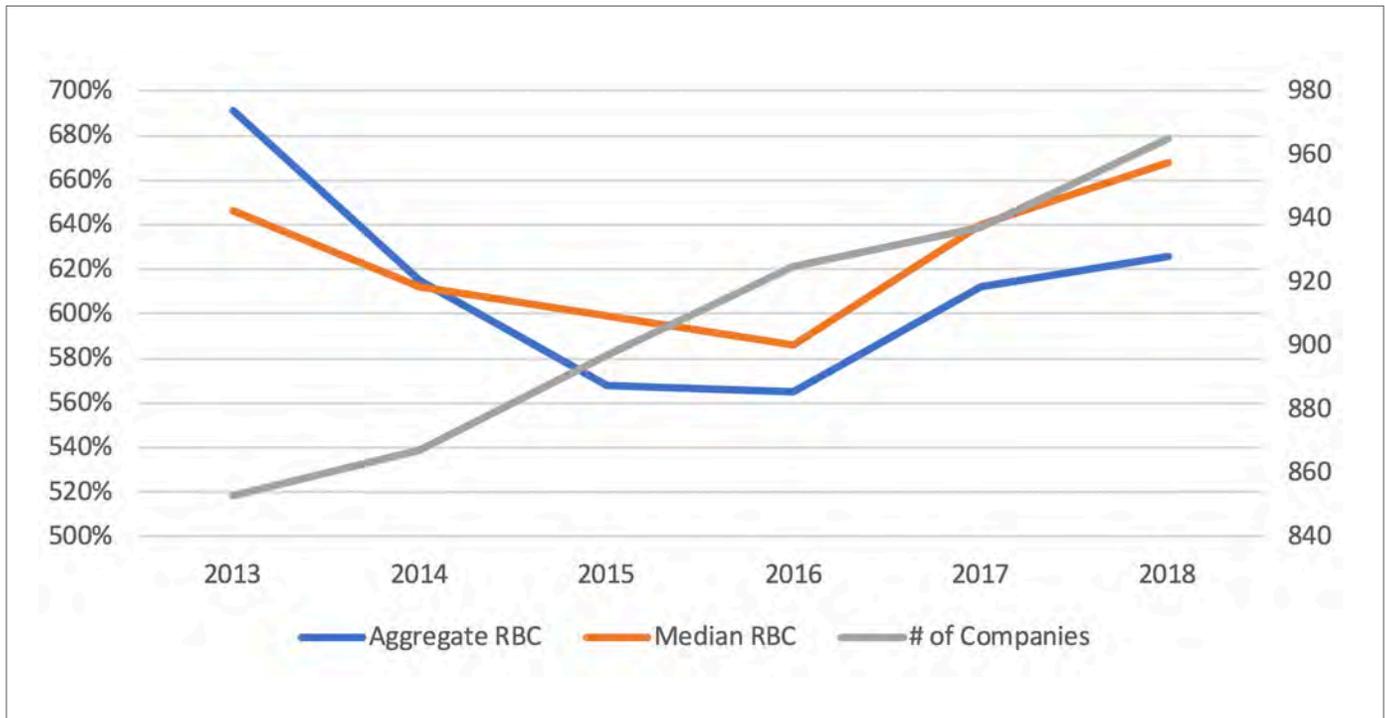
In addition to new market rules and a changing population, the Affordable Care Act "single risk pool" concentrates pricing

exercises into an annual decision well in advance of when premiums become effective. This concentration diminishes opportunities to offset losses through other products with various rate filings throughout the year. In the early years of the ACA, regulatory changes were **unpredictable** and often occurred mid-year, which did not allow insurers to reflect changes in prices.

The unique nature of the ACA arrangement and the construction design creates new challenges related to surplus requirements. The economic impact of the coronavirus, likely resulting in greater unemployment and larger individual market enrollment,<sup>3</sup> and the new expectation of insurers to provide extra-contractual benefits, provide additional challenges. State dynamics will differ as the 12 of the 13 state-based-exchanges are **offering** an emergency Special Enrollment Period (SEP) while the federal exchange will not reopen.

Inherent ACA challenges remain. Rebates subject to the minimum loss ratio requirement act as a one-sided risk corridor; smaller insurers and others subject to larger fluctuations have greater risk. Risk adjustment **continues** to be a challenge to predict, particularly for insurers with small market share. A **review** of aggregate RBC levels reveals a significant drop in RBC surplus since ACA implementation in 2014. (See Figure 1.)

Figure 1  
ACA Impact on RBC Levels



ACA market conditions have **improved** each year since 2016, and insurers are gradually rebuilding their surplus. Financial **improvement** began in 2017, but **enhanced** premium subsidies in 2018 was attractive to both insurers and consumers. A healthier market has attracted more insurers. This naturally **reduces** premium subsidies, leading cyclically to a less attractive market. The unique dynamics of ACA markets generally require a higher surplus range from insurers with a large concentration of ACA business. Table 1 illustrates improved financial results, and recent growth in enrollment, popularity and the number of insurers participating in the marketplace.

Table 1  
Number of Insurers Participating in ACA Marketplace

	More Insurer Participation	Financial (MLR <=80%)	Subsidized Enrollment Increasing	Popularity >=50%
2016	-	-	+	-
2017	-	-	-	-
2018	-	+	+	+
2019	+	+	+	+
2020	+	?	?	+

The ACA also influenced the products that its enrollees purchase. The rating rules result in incentive that lead to **leaner** value (aka Bronze-level) plans to be more financially advantageous. In many cases, it is significantly cheaper to pay low premiums

and high cost-sharing rather than higher premium. With the COVID-19 outbreak, many stakeholders are concerned that the significant cost-sharing may result in many individuals not seeking appropriate treatment. At the time of this writing, insurers are voluntarily (and involuntarily being pressured) waiving cost-sharing and co-pay benefits in excess of the basis for which premiums were developed. Commercial group markets are subject to waiving cost-sharing as well, but the risk is greater in ACA markets where cost-sharing is generally higher and the population is older. At the time of this writing, it remains unclear whether the federal government will provide financial support for the extra effort required. The coronavirus pandemic has added a new risk dynamic. Insurers are subject to known regulatory requirements, and they seek to understand them and develop risk-based premiums accordingly; new requirements and public finance decisions being made in real time is a new development.

The prospect of insuring a previously uninsured population with restrictive market rules has obviously created unprecedented challenges. Furthermore, the estimation required for assets and liabilities associated with ACA risk adjustment has **concerned** insurers and regulators alike. The risk adjustment mechanic required insurers to develop pricing factors based on overall market enrollment rather than their own enrollment. This is naturally more challenging for small insurers than large organizations that insure the majority of enrollees in state markets. Rapid insolvency of many new health organizations has renewed the focus on insurers being adequately capitalized. As a result of the coronavirus epidemic, ACA market dynamics will react to a new employment environment and a change in employed-based coverage. Insurers will need to adapt to understand the shifting risk dynamics inherent in this change.

## CONCLUSION

Health insurance companies require adequate capitalization to maintain operations, achieve their goals in competitive marketplaces and safeguard against insolvency risk. Adequate capitalization is primary to every company’s viability and operations. It is what ensures that promises and commitments to its members can be kept. Fortunately, “most insurers have plenty of capital, and state regulators also keep an eye on them to make sure the companies can pay their medical claims.”

There is a strong public interest in optimizing capital levels. Consumers should appreciate insurers’ efforts to build surplus in good times, and their ability to pay claims and remain viable in bad times. As each company is unique in a multitude of ways, it is worthwhile that they periodically assess their optimal surplus range. With the implementation of the ACA, the need for such assessment became more acute. Periodic reassessment (every five to 10 years) of an optimal surplus range is a healthy exercise for insurance organizations in normal times. In a post-coronavirus world with expected growth in ACA individual markets, an updated assessment is likely to reveal significant changes in risk exposure. Some companies are now performing a formal assessment for the first time, some at the behest of regulatory agencies and others for internal management purposes.

Optimal surplus range development and maintenance of appropriate financial strength provides comfort to regulators and consumers, and it enables insurers to weather unexpected challenges. As a whole, the insurance system is properly designed to manage unknown unknowns, and maintenance of surplus levels within an optimal range provides assurance that risk-assuming entities are well-prepared to meet their obligations to their customers. ■

## ENDNOTES

- 1 In the event of a government mandate, procuring overpriced insurance is mutually beneficial in the sense that it allows the purchaser to avoid a tax penalty for not having insurance.
- 2 It should be noted that the RBC formulas were developed utilizing experience of poorly performing companies to identify weak insurers and alert both insurers and regulators of potential trouble, not as a metric to rank the financial adequacy of well-capitalized insurers.
- 3 A loss of other insurance coverage qualifies for mid-year enrollment in the ACA individual market. An emergency Special Enrollment Period applies to previously uninsured individuals.



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