The Relevance of Actuaries in Insurance: A Colombian Perspective

From the original in Spanish by Oscar E. Velandia, translated by Carlos Arocha

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The importance of actuaries in the insurance sector is a topic seldom discussed; however, given an overhauling regulation environment, standards of practice and trends, it is necessary to strengthen the role of the actuaries in insurance companies.

If we already have the role of the "appointed actuary"[1] and the supervisory framework of the actuarial function,[2] then what is missing? First, we need to clarify that the actuarial function[3] is not a person[4] per se, and it is neither the risk management function nor exclusively a supervision tool as enunciated in Article 48 of the Solvency II Directive. Finally, the actuarial function is not optional.

It should be evident that as the actuarial function does not refer to an individual, it is not the same as the appointed actuary, who by having to comply with strict requirements, he or she may find limitations as to the information to be provided for strategic purposes.[5] Insurance companies seek that the appointed actuary can provide independent and neutral advice, and that he or she becomes the spokesperson between insurer and regulator.

The actuarial function applies only to insurance companies, and it provides an independent assessment of the risk management embedded in the insurance entity. The actuarial function has the responsibility of assessing, designing, reviewing, analyzing, informing, monitoring and approving activities concerning pricing, reserve adequacy, data quality, reinsurance arrangements, capital adequacy, underwriting policies, risk models, to name a few.

The aspects guaranteed by the actuarial function are prescribed by regulation and are not far away from those included in Article 48 of the Solvency II Directive. On the other hand, in the directive there is an emphasis regarding who may be able to assume the actuarial function: "The actuarial function shall be carried out by persons who have knowledge of actuarial and financial mathematics, commensurate with the nature, scale and complexity of the risks inherent in the business of the insurance or reinsurance undertaking, and who are able to demonstrate their relevant experience with applicable professional and other standards."[6]

On the preceding issue, the Spanish guide to the actuarial function indicates that "for the particular case of the persons performing the actuarial function, the Spanish regulation[7] goes beyond the European regulation, by recognizing[8] the actuary as the most qualified and ideal candidate to perform the actuarial function."

To define the scope of the actuarial function, it is necessary to adopt measures that are consistent with the proportionality principle, to reflect the nature, volume and complexity of the business activity.[9] Analogously, it should be borne in mind that the outsourcing of critical or important operational functions or activities shall not be undertaken in such a way as to lead to (1) materially impairing the quality of the system of governance; (2) unduly increasing the operational risk; (3) impairing the ability of the supervisory authorities to monitor the compliance of the company with its obligations; (4) undermining continuous and satisfactory service to policyholders.

In addition, insurance and reinsurance companies shall, in a timely manner, notify the supervisory authorities prior to the outsourcing of critical functions as well as of any subsequent material developments with respect to those functions or activities.

The above considerations are well understood by companies with a European parent company, but what happens to local companies in Colombia? A few have been preparing, but some others have not understood the scope of the regulatory and technological challenge, neither the governance nor the human talent aspects. This is not the future; this is now.

Other standards for which actuaries have much to offer are the International Financial Reporting Standards (IFRS), especially IFRS 17, "Insurance Contracts." Although the standards deal with accounting, the challenges posed by IFRS 17 include the use of an economic balance sheet, the calculation of probability-weighted and risk-adjusted cash flows, and the calculation of a contractual service margin. These concepts that were typically foreign to the accounting profession will now be routinely calculated.

The International Accounting Standards Board (IASB) has reconsidered the most burdensome aspects of IFRS, namely the establishment of robust reporting, processes, IT systems, governance and data management required to guarantee the high quality of financial reporting.[10] It is expected that an actuary knowledgeable in IFRS 17 will be responsible in preparing internal reports for company management, including at the least the applied methodology, assumptions and data used, judgmental assessments, results and sensitivity analyses.[11]

We can also discuss data analytics. Despite the fact that it is not a standard, it is a well-known market trend by which companies attempt to derive value from large amounts of data. Some companies already have analytics and actuarial teams in place, where algorithms are used to gain insight about results and develop forecasts. This has really been an actuarial activity for centuries. The recent popularity of machine learning simplifies tasks that otherwise were not routinely actuarial, but that create business value for insurers—for example, fraud detection models, claims assessment, marketing, budgeting and data governance, among others. Additionally, alternative models to the classical claim triangle methodologies have been introduced.

There is a wide variety of tasks that can be carried out by insurance companies, and many of them are in the actuarial realm. Therefore, it is important to strengthen actuarial teams so that soon, these professionals may transfer knowledge to other departments within the company.

We are at a critical time in the transformation of the insurance industry. It is now that companies should assess their future needs, comply with law and regulation, transform the organization to a risk-based entity and heed the global trends. In any of these activities, the actuarial perspective is fundamental. The time is ripe to strengthen actuarial teams in order to face the challenges posed by local and global insurance markets. ■

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ENDNOTES

1 The Decree 2255 (2010) prescribes that insurance companies shall have an actuary, and Circular 022 (2015) established the functions of the appointed actuary.

2 See *https://www.superfinanciera.gov.co/inicio/nuestra-entidad/marco-integral-de-supervision-10085454.*

3 According to the Solvency II Directive, "function" as defined in a governance framework is the ability to carry out operational tasks.

4 See *https://www.actuaries.org.uk/system/files/documents/pdf/k-morgan.pdf.*

5 *https://www.apra.gov.au/sites/default/files/160621-role-of-the-appointed-actuary-discussion-paper1_0.pdf.*

6 Article 48 of Directive 2009/138/EC of the European Parliament and of the Council, of November 25, 2009, on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

7 Guide to self-regulation for the practical application of the actuarial function under the Solvency II framework.

8 According to the International Actuarial Association (IAA), the actuary is defined as a member of a member association of the IAA. See *https://www.actuaries.org/IAA/Documents/CTTEES_ASC/ISAPs_Glossary_Terms/Actuary.html.*

9 Article 48 of Directive 2009/138/EC of the European Parliament and of the Council, of November 25, 2009, on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

10 See "IFRS 17 is another challenge to insurers, auditors and actuaries" by Kristoffer Bork, *The European Actuary* no. 19.

11 *http://theeuropeanactuary.org/downloads/TEA%2019-4.pdf.*