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Natural Catastrophes, Emerging Insurance Markets and Reinsurance

By Carlos Arocha

Extreme weather makes headlines frequently. Last winter, the Northern Hemisphere endured extreme cold weather. And summers are becoming exceedingly hot. This climate volatility has triggered several large natural catastrophes. Insurance loss concentrations caused by natural catastrophes seem to take place every 5–7 years. In 2017, a peak was reached. It was an outlier year. According to Swiss Re,[1] a leading global reinsurer, the havoc caused by natural and man-made catastrophes was $350 billion, of which $165 billion were losses paid by the insurance industry worldwide.

In contrast, 2018 experienced much lower catastrophic claims activity, estimated at $85 billion for the global re/insurance industry.[2] The largest natural catastrophe losses originated from hurricanes making landfall in the U.S. (Michael and Florence), wildfires in California, and from typhoons and floods in Japan.

Over the past 10 years, annual catastrophic losses adjusted for inflation have reached about $220 billion, or 0.3 percent of global GDP.[3]

Notwithstanding, international reinsurer capital markets remain resilient. Aon, a global re/insurance broker, estimates that worldwide reinsurance capital stood at $585 billion at the end of 2018, and that this capital has increased by nearly 30 percent since 2011.[4] Excess reinsurance capacity continues to exist, despite the increasing demand for reinsurance demand everywhere. In addition, most insurance markets worldwide have ready access to reinsurance solutions. Are emerging markets lagging?

THE GULF

There is an enormous gulf between the advanced and the emerging insurance markets, perhaps much larger than in any other industry, bar banking and specialized financial services. Whereas insurance density (i.e., annual premiums per capita) is $3,517 in advanced markets,[5] the emerging markets[6] reach a mere $166 (see Figure 1).[7]

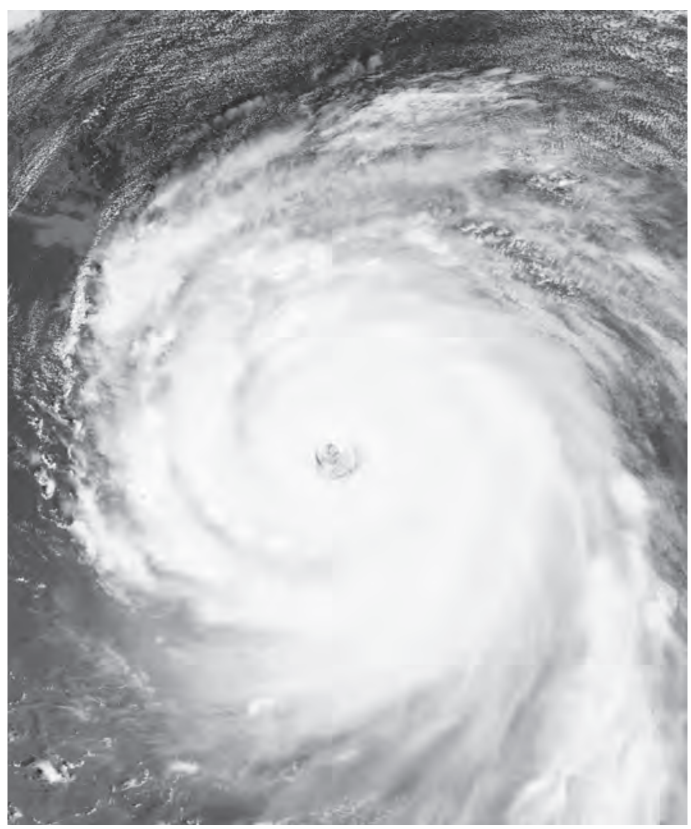
Figure 1
Annual Premiums per Person[1]

$3,517	$166
Advanced insurance markets	Emerging insurance markets

If there is an excess reinsurance capacity and solutions are readily available in most regions of the world, why is the gap so large? What can the global reinsurance industry contribute to narrow this gap? Let's first look at possible ways that may help in narrowing the existing gap and bring coverage to a greater part of the population.[8] These measures are:

1. Promote insurance and financial inclusion—the fact that products are seemingly complex can be addressed by government action such as funding programs that promote financial knowledge and allowing access to financial services to millions who do not currently have the possibility to buy insurance covers.

2. Work on regulatory change—copying and pasting regulatory solvency regimes from developed insurance markets is a recipe for failure. Risk-based regulation is taking hold in Latin America, where many countries are in the process of



overhauling solvency regimes. However, it is important to balance the need of solvency regulation with the incentives for insurance companies to introduce new and innovative products without having to be embarked in overly complex process. Solvency regimes must be adapted to the features of the market in question.

3. Strengthen product innovation—insurers need to focus in the development of products that cater to the needs of policyholders, and not merely spend their full energy in designing "anti-fraud" products. Insurers can tap into the experience available from global reinsurance players, who offer not only capacity but also knowledge transfer. A win-win situation may be achieved.

4. Improve the ability to assess risk—actuarial skills are urgently needed in most emerging insurance markets. Also, it is important to build robust modeling skills, where other insurance professionals may also play a crucial role.

5. Create partnerships between government and private sector—this is probably a "catch-all" category. The above measures would greatly benefit from fruitful relationships between government and players of the insurance sector. This is not only about regulation: it is creating more fertile ground to sow the seeds for strong insurance market growth.

REINSURERS HELPING PROMOTE INSURANCE AND FINANCIAL INCLUSION

Reinsurance solutions represent the most efficient vehicle to transfer risk to another party. The cost of reinsurance is often less than that of issuing equity of debt, with the added advantage that no shareholder is going to frown at an insurer getting additional source of capital in the form of reinsurance arrangement, as opposed to the alarm that asking for additional equity of debt in capital markets may trigger.

Smaller insurance companies, including those in emerging markets can readily benefit from reinsurance capital to expand their operations, and to underwrite large risks that otherwise would not be appropriate with their own capital base. Several leading reinsurers are currently active in micro insurance (insurance solutions for low income individuals) as well as inclusive insurance (insurance for those who currently have little or no access to insurance services regardless their income level). With the promise of making the world economy more resilient, reinsurers may in fact help in the promotion of insurance and financial inclusion.

REINSURERS PARTICIPATING IN INSURANCE REGULATORY CHANGE

With overhauled risk-based regulatory solvency paradigms, like Solvency II or the Swiss Solvency Test, the reinsurance industry is better positioned to serve as a risk mitigant. Whereas older regulatory schemes did not give appropriate credit for ceded reinsurance, by definition, principles-based regulation now allow insurers to determine a lower solvency capital requirement, thanks to the ability to deduct exposures being ceded to reinsurers. This is particularly true in cases where the insurance company develops an internal risk model, but even standard models consider the effect of reinsurance.

Reinsurance can help narrow the gap.

REINSURERS HELPING WITH PRODUCT INNOVATION

By having access to many international markets and a diversity of insurance companies, reinsurers have become knowledge companies, where insurance innovation can be brought about to emerging insurance markets.

Full-service reinsurers often participate in the product development process of insurance companies, by providing expertise in underwriting, technical publishing, and training services.

Another tool is technology. As emerging markets have less of an established distribution network of insurance, innovation and technology may have the greatest impact in such markets. Reinsurers actively seek ways to foster the development of new technologies.

Thus, reinsurers have the means to be at the forefront of product design and development to help narrow the existing gap between advanced and emerging insurance markets.

REINSURERS HELPING WITH THE ABILITY TO ASSESS RISK

By the nature and scope of their activity, global reinsurers have developed valuable expertise in assessing risk. Many a risk, like the risk of natural catastrophes or the risk of pandemics, require large data repositories and the development of highly sophisticated risk models. The resources to build and maintain these models are well beyond the capabilities of smaller insurance companies, and even if they had these resources on hand, business needs would probably not warrant the associated expense. In contrast, global reinsurers' scope of operations justifies the construction of such risk models.

In addition, the in-house knowledge is often used to attract new customers, via the assessment tools provided by reinsurers and reinsurance brokers that help companies with their risk assessment tasks.

REINSURERS PARTICIPATING IN PARTNERSHIPS BETWEEN THE INSURANCE SECTOR AND GOVERNMENTS

The world's leading reinsurers have been engaged in partnerships with government bodies. Recently Swiss Re entered a partnership with the government of Heilongjiang Province in China and the Sunlight Agriculture Mutual Insurance Company of China, to provide agricultural reinsurance protection.[9] This is just an example of fostering dialogue between the private and public sectors, and with the skillset developed over the years by the leading reinsurance companies, solutions that benefit society can be brought about.

In fact, reinsurers can help make the world economy more resilient.

WHAT ABOUT ACTUARIES?

Actuaries have the right skillset to play a critical role in helping designing products that meet real needs, particularly in those countries where insurance density and penetration are relatively low. Innovation and the use of technology may help narrow the gap and by acknowledging the power of partnerships between governments and the private sector, burden derived from being uninsured or underinsured may be eased. ■

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ENDNOTES

1 *Sigma 2/19*, Swiss Re Institute.

2 *Ibid.*

3 *Ibid*.

4 *Reinsurance Market Outlook*, April 2019, Aon.

5 Advanced insurance markets are hereby defined as the US, Canada, Western Europe (excluding Turkey), Japan, Hong Kong, Singapore, South Korea, Taiwan, Oceania, and Israel.

6 Emerging insurance markets are hereby defined as Latin America, Central and Eastern Europe, South and East Asia, the Middle East (excluding Israel) and Central Asia, Turkey, and Africa.

7 *Sigma 3/18*, Swiss Re Institute.

8 *Closing the Nat CAT Protection Gap in Latin America*, Abraham, M. and Arocha, C., 2018 Society of Actuaries Annual Meeting Presentation.

9 *https://www.globalreinsurance.com/swiss-re-partners-with-chinese-government-in-reinsurance-scheme/1419286.article*