



Why Are the Cat Bonds Taking Over the Reinsurance Market?

Lucas Pancini

Actuary, graduated in Actuarial Sciences at the University of São Paulo and Master of Actuarial Sciences at Cass Business School, City University of London. Member of the Brazilian Institute of Actuary and in the process to become a member of the IFoA (Institute and Faculty of Actuaries) of the United Kingdom. Specialised in the reinsurance market, acted as a broker responsible for the modelling and the pricing of Reinsurance Treaties. He is currently a Reinsurance Specialist at Chubb Seguros.

pancini.lucas@gmail.com

Summary

Catastrophe bonds, commonly referred to as “cat bonds”, were created in the 1990s in the wake of the damage caused by Hurricane Andrew throughout the state of Florida, United States, which greatly affected insurance companies and exposed a necessity to find ways of diversifying risks. Cat bonds, insurance-linked securities (ILS) that aim to transfer the catastrophic insurance risks from an insurer to investors, became popular especially in the late 2000s among investors seeking the higher returns and uncorrelation with other assets which are features of this bond. Additionally, the cat bonds attracted sponsors (the issuer) other than the primary insurers, such as corporations and government bodies. The capital market, therefore, turned to a new source of insurance capacity and coverage and what was originally designed to be a source of protection and risk diversification for re/insurance companies, also started to present itself as a competitor.

The study aims to analyze the factors that could explain why catastrophe bonds shifted from being a complementary product to a competitor of the re/insurance market, such as the higher expected returns for investors and the capacity size, as well as the full collateralization of losses secured by the sponsor of the cat bond. The study also aims to stress how traditional reinsurance can still endure within this new context, whilst also justifying a feasible coexistence of both instruments considering the market development into the future.

Key Words

Catastrophe bonds, “cat bonds”, risk diversification, risk diversification, collateralization of losses.

Contents

1. Introduction. 2. Reinsurance versus cat bonds. 2.1 Investment returns. 2.2 Collateralization. 2.3 Agreement features. 2.4 Claims triggers. 2.5 Capacity. 3. Reinsurance and cat bonds. 3.1 Reinsurer and ils player. 3.2 Single placement. 3.3 Long-term availability. 3.4 Future developments. 4. Conclusion. 5. Bibliographical references.



Sinopse

Por que as “cat bonds” estão assumindo o mercado de resseguros?

Lucas Pancini

Graduado em Ciências Atuariais pela Universidade de São Paulo e Mestre em Ciências Atuariais pela Cass Business School da City University de Londres. Membro do Instituto Brasileiro de Atuária e em processo de se tornar membro do IFoA (Institute and Faculty of Actuaries) do Reino Unido. Especializado em resseguros, atuou como corretor de resseguros sendo o atuário responsável pela modelagem e precificação de Contratos Automáticos. Atualmente é especialista de Resseguros na Chubb Seguros. pancini.lucas@gmail.com

Resumo

Os bônus de catástrofe, comumente chamados de “cat bonds”, foram criados na década de 1990 após os danos causados pelo furacão Andrew em todo o estado da Flórida, Estados Unidos, o que afetou muito as companhias de seguros e expôs uma necessidade de encontrar maneiras de diversificar riscos. Bônus de catástrofes – títulos indexados a seguros (ILS) que visam transferir os riscos de seguros catastróficos de uma seguradora para investidores – tornaram-se populares especialmente no final dos anos 2000 entre os investidores que buscam retornos mais elevados e não correlacionados com outros ativos. Além disso, os “cat bonds” atraíram emissores outros que as seguradoras primárias, como corporações e entidades governamentais. O mercado de capitais, portanto, voltou-se para uma nova fonte de capacidade e cobertura de seguros e o que originalmente foi concebido para ser uma fonte de proteção e diversificação de riscos para seguradoras e resseguradoras também passou a se apresentar como concorrente das mesmas.

O estudo objetiva analisar os fatores que poderiam explicar porque os bônus de catástrofes deixaram de ser um produto complementar e passaram a ser concorrentes do mercado de seguros e resseguros como, por exemplo, maiores retornos esperados para os investidores e a extensão da capacidade bem como a plena colateralização das perdas garantida pelo emissor do “cat bond”. O estudo também pretende enfatizar como o resseguro tradicional pode perdurar nesse novo contexto ao mesmo tempo em que justifica a coexistência viável de ambos os instrumentos considerando o desenvolvimento do mercado no futuro.

Palavras-Chave

Bônus de catástrofes, “cat bond”, diversificação de riscos, resseguro, colateralização das perdas.

Sumário

1. Introdução. 2. Resseguro versus “cat bonds”. 2.1 Retornos do investimento. 2.2 Colateralização. 2.3 Características dos contratos. 2.4 Acionadores de avisos de sinistro. 2.5 Capacidade. 3. Resseguro e “cat bonds”. 3.1 Resseguradores e participantes no mercado de ILS. 3.2 Oferta única. 3.3 Disponibilidade a longo prazo. 3.4 Desenvolvimentos futuros. 4. Conclusão. 5. Referências bibliográficas.



Sinopsis

Por qué los “*cat bonds*” se están apoderando del mercado de reaseguros?

Lucas Pancini

Graduado en Ciencias Actuariales en la Universidad de São Paulo y Master en Ciencias Actuariales en Cass Business School, City University de Londres. Miembro del Instituto Brasileño de Actuaría y en el proceso de convertirse en miembro del IFoA (Instituto y Facultad de Actuarios) del Reino Unido. Especializado en reaseguros, actuó como intermediario responsable del modelado y fijación de precios de Contratos Automáticos de reaseguros. Actualmente es especialista en Reaseguros en Chubb Seguros. pancini.lucas@gmail.com

Resumen

Los bonos de catástrofe, comúnmente llamados “*cat bonds*”, fueron creados en la década de 1990 tras los daños causados por el huracán Andrew en todo el estado de Florida, Estados Unidos, lo que afectó mucho a las compañías de seguros y expuso una necesidad de encontrar formas de diversificar riesgos. Los bonos de catástrofes – títulos indexados a seguros (ILS) destinados a transferir los riesgos de seguros catastróficos de una aseguradora a inversores – se hicieron populares especialmente a finales de los años 2000 entre los inversores que buscaban retornos más elevados y no correlacionados con otros activos. Además, los “*cat bonds*” empezaron a tener emisores otros que las aseguradoras primarias, como corporaciones y entidades gubernamentales. El mercado de capitales, por lo tanto, se volvió a una nueva fuente de capacidad y cobertura de seguros y lo que originalmente fue concebido para ser una fuente de protección y diversificación de riesgos para aseguradoras y reaseguradoras también pasó a presentarse como competidor de las mismas.

El estudio tiene como objetivo analizar los factores que podrían explicar por qué los bonos de catástrofes dejaron de ser un producto complementario y pasaron a ser competidores del mercado de seguros y reaseguros como, por ejemplo, mayores retornos esperados para los inversores y la extensión de la capacidad así como la plena colateralización de las pérdidas garantizada por el emisor del “*cat bond*”. El estudio también pretende enfatizar cómo el reaseguro tradicional puede perdurar en ese nuevo contexto al mismo tiempo que justifica la coexistencia viable de ambos instrumentos considerando el desarrollo del mercado en el futuro.

Palabras-Clave

Bonos de catástrofe, “*cat bonds*”, diversificación de riesgos, reaseguros, colateralización de pérdidas.

Sumario

1. Introducción. 2. Reaseguro frente a los “*cat bonds*”. 2.1 Retornos de la inversión. 2.2 Colateralización. 2.3 Características de los contratos. 2.4 Accionadores de avisos de siniestro. 2.5 Capacidad. 3. Reaseguro y “*cat bonds*”. 3.1 Reaseguradores y participantes en el mercado de ILS. 3.2 Oferta única. 3.3 Disponibilidad a largo plazo. 3.4 Desarrollos futuros. 4. Conclusión. 5. Referencias bibliográficas.



1. Introduction

Even though the reinsurance industry dates back many centuries, most notably for maritime insurance during the initial centuries, it matured during the 18th century as a result of the great fires in European and American cities, which demonstrated the need for reinsurance and prompted the foundation of the first reinsurers. Further catastrophes at the beginning of the 20th century, such as the great fire of Baltimore in 1904, the San Francisco earthquake in 1906 and the sinking of the Titanic in 1912, were fundamental in developing trust in the feasibility of the business, most specifically related to the ability of re/insurers to pay the claims due. After the two World Wars and consequent recovery of the major economies affected by the conflicts, the market achieved the stability necessary to keep growing, leading to the emergence of new companies. The industry broadened due to alterations to the scope of the perils being covered, such as the upsurge in cars and planes or even the growing concern for people to insure their own lives. More recently, the development of rigid regulatory regimes, competitiveness within the industry and more complex pricing tools have reaffirmed the need for reinsurance, establishing its importance.

Essentially, the reinsurer has evolved into more than just another company protecting the ceding insurer against catastrophes or sharing the risk assumed by the latter, namely the original purposes of such company. Nowadays reinsurers are also recognized by their expertise, providing training and technology for the insurer or the development of new products, and providing support on the decision-making and reinsurance planning of the ceding companies.

Despite the solidity demonstrated by reinsurers, events in the 1990s showed that even these would eventually need to protect themselves to cope with the continuous growth of exposure concentrated in some areas that are prone to catastrophe. In 1992, Hurricane Andrew in the state of Florida, United States caused USD 17 billion of losses to the insurance industry (Swiss Re, 2011, p.9). The aftermath of this event led to an increase in reinsurance premiums and, more importantly, the ability of the traditional reinsurers to pay for losses after catastrophes was brought into question. (Hartwig and Lynch, 2015, p.5).

In turn, reinsurers needed an alternative market to address the shortfall in their core business. Thus, catastrophe bonds (“cat bonds”) were created during the 1990s. These bonds are one of the existing insurance-linked securities (ILS), which are “instruments by which insurance risk is transferred in a capital markets contract” (Partner Re, 2008, p.3). Cat bonds specifically allow investors to assume part of the catastrophic risks (investor commits to reimbursing the sponsor in case of occurrence of the bond’s underlying event) from the ceding company in exchange for higher returns in their investment in comparison to what could be obtained in the capital markets.



The relevance of the capacity provided by the ILS market can be validated when observing that the total capital issued in this market rose from USD 785 million in 1997 to USD 7 billion in 2016, whereas the outstanding capital, the capital made available but not capitalised by insurers and sponsors, was approximately USD 26 billion in 2016 (Artemis.bm, 2017a). In just the first half of 2017, the issuance increased to USD 9.7 billion; the most ever witnessed in a single year (Artemis.bm, 2017a). The alternative form of capital represented between 40 and 50 percent of the capital supporting catastrophe business and 12 percent of the global reinsurance market in the third quarter of 2014 (AON Benfield, 2015, as cited by Hartwig and Lynch, 2015, p.2).

Even though the cat bonds, as previously explained, were originally designed to have the re/insurers as sponsors (and they remain as the primary sponsors), these bonds have features that have attracted other types of sponsors, such as public insurers, government entities, and corporations (Wong, 2016, p.1). These sponsors “can take advantage of various non-traditional structures” and that “in doing so, they could significantly lower their costs for insuring these risks” (Fudali and Scott, 2016).

Primary insurers accounted for around 70 percent of the cat bond volume between 2008 and 2013 whereas reinsurers observed a reduction from 30 to 7 percent of their share during this period. Corporations and state entities, such as state-owned insurance pools and natural catastrophe funds, which had no representation whatsoever in 2008, accounted for the remaining part (approximately 25 percent) of volume issuance in 2013 (Munich Re, 2013, p.4), reflecting a trend for change of the sponsor type.

In other words, a capital influx that would have been made into the traditional reinsurance market is foregone. Those resources are now invested in the capital market and the protection against catastrophes is assured by the investors of the latter market rather than by traditional reinsurers. In turn, alternative capital has caused a reduction in reinsurance prices, particularly in the catastrophic risk business (Hartwig and Lynch, 2015, p.4). The index of global property catastrophe reinsurance rates, produced by Guy Carpenter, dropped nearly 40 percent from 2006 to 2016 (Artemis.bm, 2017b). Thus, the growth and the profitability of the traditional reinsurance market are directly affected by the emergence of the ILS, originally intended to be one of their sources of risk diversification but now perceived from this viewpoint as competitors.

The study aims, therefore, to expose the constraints between the cat bonds and traditional re/insurance that could explain why the alternative form of capital drew interest from new types of sponsors as well as from new types of investors and, consequently, is edging out some of the capacity of the reinsurance marketplace. Based on this, the study also analyses perspectives for the coexistence of the two markets.



This study is divided into four sections, including this introduction. The next section approaches the differences between the cat bonds and the traditional reinsurance model, pointing out the advantages that the former possesses and sustaining reasons for its market growth. The third section analyses how the market might unfold considering the coexistence of both instruments. A conclusion is made in the fourth and last section.

2. Reinsurance Versus Cat Bonds

Reinsurance is a formal agreement between an insurer and another insurer (potentially a reinsurer) in which the former agrees to transfer risk to the latter for the purpose of reducing the volatility of the underlying insurance portfolio by sharing part of the risk. In turn, the ceding company might also obtain protection against catastrophes that could represent an unendurable blow to the company's financial status. Lately, reinsurers have evolved to become an important source of expertise, supporting insurers in their decision-making, training, and technology, enabling the ceding party to develop new products and exploit new markets.

Both parties abide by a contract which specifies what is being reinsured and the terms of premiums and claims share. They could agree to mutually share the full portfolio (treaty reinsurance) or individual risks that do not fit within this portfolio (facultative reinsurance). Premiums and claims could be shared in the same proportion (proportional reinsurance) or the reinsurance could pay back the insurers for claims exceeding a given threshold in return for a premium which was previously agreed upon (non-proportional reinsurance).

In contrast, the cat bond was primarily designed to have an insurance company as the sponsor of the transaction. The sponsor commits to a financial agreement with a special-purpose vehicle (SPV) that conducts the transaction, receiving premiums from the sponsor in exchange for securing the sponsor from named perils, mostly natural catastrophes, which represent the underlying event that could trigger the cat bond. The SPV issues the bonds in the capital markets and the proceeds from these are invested in high-quality securities and held in a collateral trust. Investors, such as hedge funds, pensions funds and asset managers are, therefore, assuming the risk and in case of occurrence of the triggering event, the principal of the bonds would be used to pay the sponsor's claims. If the bond is not triggered, e.g. there is no catastrophic occurrence, the investors are fully repaid the principal and the coupons.

Bearing in mind both structures mentioned above, this section of the study sheds light on the singularities of several aspects of the cat bonds, comparing these with the traditional re/insurance industry.



2.1 Investment Returns

One of the attractions for investors purchasing cat bonds are the higher returns in comparison to equally rated bonds or to what could be obtained in the capital markets. The average spread above LIBOR rate for cat bonds issued in 2016 was 7.04% (Artemis.bm, 2017c). The spread, which represents the risk premium of the transaction, usually ranges between 2% and 10% and it varies accordingly with the level of insurance risk assumed by the investors. The underlying catastrophic events are modeled by a specialized agency at the issuance stage of the bond. The risk exposure is estimated by this agent and so are the loss probabilities of the event, which directly reflects on the yield of the bond. The average expected loss of cat bonds issued in 2016 was 3% (Artemis.bm, 2017c) whilst most of these bonds have an expected loss lower than 5%.

Furthermore, catastrophes have basically no correlation with capital markets and other asset classes, which result in a reduction of the overall portfolio risk when investing in cat bonds by the principle of the portfolio diversification. In addition, during economic crisis periods, the correlation among risky assets tends to increase, dissolving the portfolio diversification (Swiss Re, 2011, p.23). Cat bonds though are likely to remain uncorrelated during these periods.

Although the advantageous lower correlation of the cat bonds should entail in lower yields, the spreads of these actually exceeds corporate bonds with a similar credit rating due to the novelty of this niche market, as investors require an extra incentive to enter into an unfamiliar market. Furthermore, retail investors cannot access this niche market, limiting the market mainly to institutional investors, which could then obtain more favorable conditions (Swiss Re, 2011, p.24).

2.2 Collateralization

Reinsurers are companies that, like any other, could become insolvent and thus fail to honor its debts (claims payments, specifically) in a timely manner or even to pay these at all. This implies that any ceding company purchasing reinsurance must deal with a credit risk which is inherent to the transaction. Furthermore, this reveals a characteristic attractive to sponsors of cat bonds, as the cedents, in this case, would be fully covered against credit risk. After the bond is purchased, the cash remains in a collateral account with restrictions on new investments or withdrawals and even in the case of insolvency of the investor, the sponsor would still be able to make use of the monies in the collateral account in case of an event triggering the bond, since it has remained in the account throughout (Miller and Popkin, 2012, p.1). Besides, there is no correlation between the occurrence of the event that might trigger the bond and the ability of the SPV to pay its obligations. Hence cat bonds feature the so-called full collateralization.



2.3 Agreement Features

An important distinction between cat bonds and reinsurance is the term of coverage. Traditional reinsurance is, in most cases, a one-year agreement, which can be renewed if both parties mutually agree. However, conditions might change yearly due to the variation of several factors, such as loss ratios, macroeconomic landscape or reinsurer appetite for a certain line of business. Consecutively, the price of reinsurance is unpredictable to a certain extent, meaning that the insurer is not able to forecast a long-term cost of the protection he is obtaining. Cat bonds, alternatively, provide a longer-term coverage, typically between three and five years at a fixed cost (Partner Re, 2008, p.4). Hence, sponsors have a desirable stability with regard to the price for the catastrophe protection acquired.

Nevertheless, traditional reinsurance involves a written agreement that can be prone to coverage disputes which delay claims reimbursements, whereas cat bonds usually have clearer conditions (Swiss Re, 2011, p.21), attracting sponsors due to easier settlements.

2.4 Claims Triggers

Hartwig and Lynch (2015, p.10-11) revealed that the claims triggers of the catastrophe bonds, generally, can be split into two types: indemnity or parametric.

Indemnity triggers are the most favorable to insurers as the basis risk is extinguished. In other words, every claim is strictly reimbursed, given the limits and conditions of the agreement, so the insurer bears no risk. This type of trigger, though, is not the most attractive to investors, mainly because of the moral hazard that might occur. The insurer shall be reimbursed for claims anyway and thus might not act in the best interest of the investor. Furthermore, the claims processing, in this case, is rather slow and bureaucratic, which conflicts with the purposes of the investors that would rather settle their obligations as easily and quickly as possible.

A parametric trigger, on the other hand, is in the best interest of the investors. These are related to an index and thus independent from individual claims arising on the insurer's portfolio. When the bond is issued, the parties have agreed upon an index which is relevant with respect to the covered event, such as the wind speed in case of a hurricane or a loss index of the insurance industry. A set of reimbursement values are set in accordance with ranges of the index. Therefore, the amount repaid to the insurer is related to the index and not to the portfolio claims. This generates a basis risk which is undesirable to the insurer but eliminates moral hazard and speeds up the claims processing time, which is desirable to investors.

That said, parametric and correlated triggers, such as industry loss index, were an important feature in attracting investors to this market. During the period in which the ILS market was becoming more robust in the early 2000s, these were the most common triggers, consistently accounting for over 60% of all issuance (Artemis.bm, 2017d). However, the numbers suggest that investors are more comfortable with having an indemnity trigger as these became the most common type since the late 2000s, reaching 66% of the total issuance in 2016 (Artemis.bm, 2017d).



2.5 Capacity

The development of the cat bonds can also be linked to the establishment of notable institutional investors, such as sovereign wealth funds or pensions and mutual funds, as a new source of capacity. These represented not only a new source of capacity but a source which had no insurance exposure whatsoever. The main players in the traditional reinsurance marketplace could be exposed to certain risks or in certain areas and, in turn, were not able to provide capacity at a competitive cost to insurers or corporate and governmental sponsors.

Similarly, as a well-established industry, the reinsurance market alternated between underwriting cycles following major losses faced throughout the years, which compromised the capital available in the market and pushed the reinsurance prices up until surplus had been re-established and losses were paid back (Swiss Re, 2011, p.18). Hence, the entrance of cat bond investors as a new source of capacity is facilitated by the inexistence of historical losses and, consequently, the possibility of more competitive capacity offers.

3. Reinsurance and Cat Bonds

Although the aforementioned arguments might constitute reasons why the materialization of the catastrophe bonds has hampered the traditional reinsurance industry rather than propelled it, Bradicich et al. (2013, p.4) suggest that insurers will develop capabilities to actively manage traditional and alternative markets as both progress. Ammar et al. (2015, p.54) denote that the shift towards indemnity triggers, as mentioned in section 2.4. of this study, could be interpreted as a convergence between the two markets. Thus, this section approaches a few scenarios that entail in the coexistence of both instruments.

3.1 Reinsurer and ILS Player

Some of the largest reinsurance companies, such as Munich Re, Swiss Re and SCOR Re, have observed the ILS as a market to be added to the company's core businesses and thus deployed a new sector within the company fully dedicated to the insurance-linked securities. This sector can be responsible both for the placement of risks on behalf of their own reinsurer as well as arranging solutions in the ILS market for its clients. Artemis' analysts (Artemis.bm, 2017e) are forecasting that the Lloyd's of London will undergo a "structural revolution" to prepare itself for this new market formation. Summarily, this reflects that the market has players not only willing to work on both ends, but also embracing it.

3.2 Single Placement

Reinsurance and cat bonds do not necessarily compete, since both can be placed simultaneously on a single risk or portfolio. A cat bond could be attached to a higher point of a reinsurance tower (as cat bonds usually only assume larger risks due to the high transactional costs involved in the placement). The reinsurance, in this case, would solely assume a lower layer, reducing the volatility of the program. This also highlights another advantage of the cat bonds, which is the diversification of risk across different markets rather than its retention among the insurers, reinsurers and retrocessionaires (Hartwig and Lynch, 2015, p.19).



3.3 Long-Term Availability

The concern in respect of the availability of the alternative capital in the long term is named by Bradicich et al. (2013, p.3-4) to express a reason why the traditional reinsurance model shall remain strong.

Their study mentions that alternative capital might be withdrawn if large catastrophic events occur, reducing the investors' profitability and interest on the cat bonds. Unlike reinsurers, these investors are not used to pay-out periods.

It is also mentioned that a more favorable interest rate environment could represent the withdrawal of third-party capital. A shift from a low to high interest rate would decrease the investor necessity to assume the insurance risk in order to achieve higher yields, directly affecting interest on this class of asset.

Bearing in mind the randomness of the circumstances of a catastrophe and the volatility of the interest rates, third-party capital availability might exhibit cycles, on which the presence of the reinsurance can ensure the capacity required by insurer and/or sponsors to the placement of catastrophe insurance.

3.4 Future Developments

It is not certain, either, that these markets are going to converge eventually or evolve towards a rupture. Back in 2013, Bradicich et al. (2013, p.5-6) suggested three scenarios for the cat bonds and the ILS market by 2020. The first one argued that a peak had already been reached, which is a share of roughly 15 percent of the total reinsurance market capacity and would not be surpassed due to the reasons mentioned in the previous paragraph as well as the preference of insurers at times to remain engaged in the traditional reinsurance landscape aiming for a long-term relationship with the reinsurers. The second scenario is a disruption if the alternative capital becomes 25 to 35 percent of the market which is suggested will happen if investors are keener to assume this sort of risk in exchange for uncorrelation and sponsors are more acquainted with the cat bonds. Lastly, the third scenario is a dislocation if the percentages rise to 40 or exceed it, feasible if major investors assume larger positions in the market.

Similarly, Artemis.bm (2017f) indicated a research conducted by the Barclays Capital team, where three different future reinsurer scenarios in spite of the growth of alternative capital were provided, as follows: the most likely foresees alternative capital doubling its size as investors would remain interested in reinsurance as an asset; the best case predicts a stabilisation at current levels which is seem as unlikely though due to the available capacity the market has to expand; and the worst case is traditional property catastrophe reinsurance being fully replaced by third-party capital reinsurance, though this is also considered unlikely due to the uncertainty of available capital in the long-term. Thus, the report does not expect any case where alternative capital will completely take over the traditional reinsurance industry.



Those scenarios were mainly constructed considering the level of investment made by institutional investors (and its changes over time) based on the (un)successful ventures these would have had in the market. In other words, the predictions assume a strong relation between the market future and both the occurrence (or not) of large catastrophes and the movement of interest rates, which will define the appetite of the investors and directly intercede on the direction of the whole market, e.g. if investors gain or lose trust in the market, market expands or retracts, respectively. Therefore, there are several other pertinent factors not taken into consideration.

Ammar et al. (2015, p.51) cite the entrance of new investors, sponsors, structures, geographical location, technologies and types of risk in the market among guiding factors to diverse trends. In fact, recent issuance of cat bonds has shown to be spreading out from the most original scope, reflecting this expansion trend. A few examples include: Alpha Terra Validus I, designed to address Latin American perils; Bosphorus 1 Re Ltd, sponsored by a Turkish state backed insurer to cover Turkey earthquakes; MultiCat Mexico 2009 Ltd, sponsored by a Mexican catastrophe fund covering hurricanes and earthquakes in the country; IBRD CAR 111-112, created to protect the World Bank's Pandemic Emergency Financial Facility against pandemics; Hoplon Insurance Ltd, sponsored by a lottery company for protection against lottery winnings (Artemis.bm, 2017g).

The demand for more complex products and coverages has been increasing, especially due to technological advances, and the whole insurance sector needs to be innovative to deal with this gap. For instance, cyber risks are arguably one of the major challenges at this moment, in view of the uncertainty insurers face in respect of the total cyber exposure, which could be catastrophic, but lacks historical data. In this sense, the ILS instruments might also be a valuable tool, supporting the traditional re/insurance market to absorb this demand. Jacquet (2017) emphasizes that the ILS market has the depth to do so and acknowledges both the complexity and opportunity of cyber insurance.



4. Conclusion

Cat bonds and other forms of insurance-linked securities arrived in a prominently established market, such as re/insurance, which arguably, in recent years, has failed to provide an aspect of innovation and modernization, essential elements to deliver the appropriate insurance solutions in consideration of advances in technology, science and quality of life. The ability to deal with some distinct types of risk through innovative formats and structures, whilst also engaging unused sources of capacity at a feasible cost, are virtues that the cat bonds possess, enabling their breakthrough into the re/insurance market and establishing them as a permanent tool of risk transfer. In other words, the market is experiencing a structural change and will likely not make a return to being solely dependent on traditional reinsurance, even considering that the current scenario could be ambiguous due to the market overcapacity from both traditional and alternative sources and that is to be ensured the long-term commitment of the cat bonds investors.

Therefore, the rapid and expanding capacity of cat bonds and other ILS instruments in the insurance market, which was followed by a retreat in reinsurance premiums as well as in the traditional reinsurers' share of the catastrophe reinsurance market, should be viewed as a transition stage rather than an effective and permanent competition between the two risk transfer concepts.

Embracing the presence of the alternative capital in the insurance market can also be beneficial to reinsurers, mostly due to the consolidation of a risk diversification source. Nevertheless, the reinsurance market has been excessively based on traditional concepts whereas the creation of alternative instruments has shown that a certain degree of innovation is required to thrive in a new world context.

Their coexistence should be fundamental for an insurance industry striving to provide the appropriate solutions for the growing demand in the catastrophe insurance market, where catastrophe bonds are not suitable to every risk, likewise the traditional reinsurance.



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