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SI Re

STEPS 1/20

Insurance-Linked Securities – SI Re's second strategic pillar

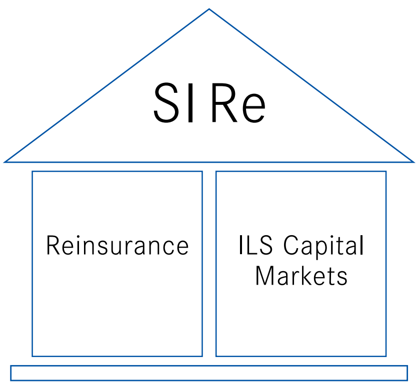
SI Re follows a dual business strategy based on the traditional reinsurance market and the alternative capital market. In traditional reinsurance, we pursue a highly focused underwriting strategy centred on European direct insurance business in standard and selected specialty lines. In addition to this deliberate focus on traditional business, we diversify our portfolio through a comprehensive Insurance-Linked Securities (ILS) underwriting strategy.

SI Re initially embarked on this dual course in 2010 when it first underwrote catastrophe bonds. We have been consistently expanding our involvement in ILS ever since. At the same time, we have rigorously reduced our exposure when the conditions of the new issues did not meet our internal targets. After almost ten years in ILS, we are very pleased with what we have achieved. Besides the diversification benefits in combination with our insurance risks, our portfolio has posted a net asset value performance of over 56% since 2010. The cumulated return on our assets has thus outperformed the benchmark index, comprising various implemented market strategies.

In 2017 and 2018, the alternative capital market incurred some heavy losses, the extent of which was initially hard to quantify. Subsequently, this tied up a lot of collateralised capacity. However, the convergence market proved its resilience and reliability as it emerged strengthened from this consolidation phase. As a result, SI Re decided in 2019 to incrementally increase its engagement in the ILS market from up to USD 50 million to a maximum of USD 100 million, provided the issues on offer meet our requirements in terms of risk diversification and price quality. To achieve our targets, we decided to avoid fixed investment sums in favour of investment ranges so we can focus exclusively on sustainable investment options. Moreover, we adopt an active approach based on ongoing portfolio optimisation as opposed to a buy and hold strategy.

As of this year, we will manage our ILS transactions through a standalone business unit called «SI Re ILS Capital Markets». The new unit will be embedded into our underwriting operations, as we view ILS as part of our insurance portfolio and therefore as an underwriting risk rather than an investment risk. We, therefore, review and manage ILS risks with the same procedure and stringency as our traditional insurance risks. This ensures a coherent risk analysis of SI Re's overarching risk profile. It also provides cost synergies, as it saves us having to manage two separate quantitative analysis systems. Moreover, we measure the yield on ILS relative to the capital committed, as we do with traditional reinsurance. This approach stems from our viewpoint that only a holistic and risk-based ILS evaluation combined with the traditional reinsurance portfolio will allow us to quantify and apply our diversification potential effectively.

FIGURE 1: SI RE'S DUAL BUSINESS MODEL



Source: SI Re

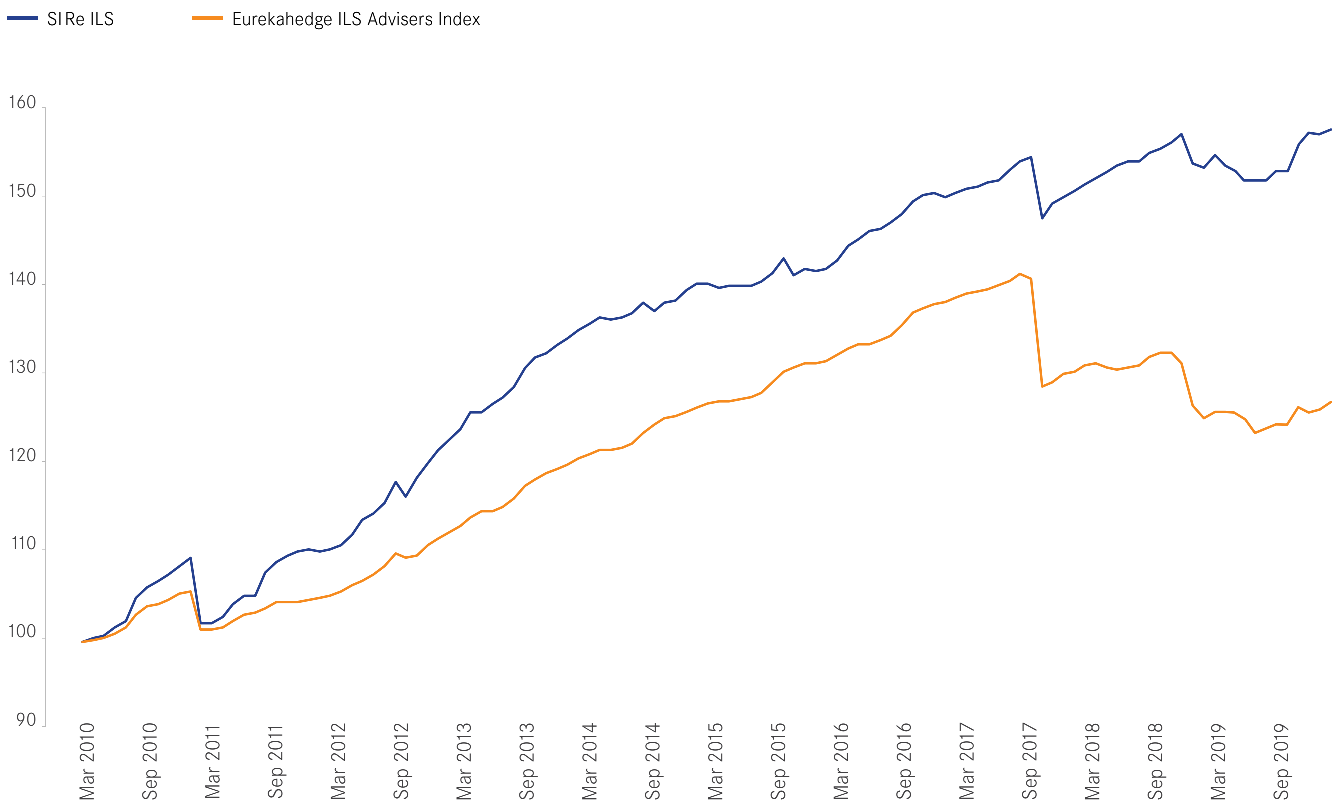
Robert Salzmann, who previously managed the ILS portfolio as Head of Pricing & ILS Analytics, will lead the new unit. In the medium term, the team will recruit people for the positions of ILS analysis, cat/portfolio modelling and subsequently data analysis. The employees in charge of modelling will also have an actuarial role and create quantitative analyses for both ILS and traditional reinsurance. Robert Salzmann believes in integrating modelling functions with actuarial operations to ensure a holistic perspective of insurance risk, thus guaranteeing and optimising diversification between ILS and traditional reinsurance, while also taking the required level of capital into account.

A broad-based ILS portfolio reduces volatility

From the outset, we have used our ILS investments to diversify our insurance risks. That has provided us with various levers to manage our business and mitigate market fluctuations. Thus, we are in the position to adjust to market fluctuations.

The ILS risks are predominantly of primary and secondary nature and outside Europe. They can be earthquake, tropical cyclones, atmospheric perils, floods or wildfires. We anticipate further expansion of covered risks and geographies due to the World Bank initiatives regarding ILS and technological advances. We are always looking at new risk classes

FIGURE 2: SI RE ILS INVESTMENT PERFORMANCE RELATIVE TO THE BENCHMARK



Source: Eurekahedge

and we are prepared to underwrite such new programmes provided they meet our requirements.

Growth through ILS, but not at any price

SI Re will remain prudent and only expand the ILS portfolio when the following criteria have been met:

1. The transaction must improve diversification.
2. The risk and return requirements must be met.
3. Sponsor and past transactions performance, especially during stress situations, will be taken into account when deciding on renewing transactions.
4. The transactions must only have a low level of financial market correlation.

We also ensure we have protection by accumulating fluctuation reserves for extreme events, same as with our reinsurance business.

ILS - a market with great potential

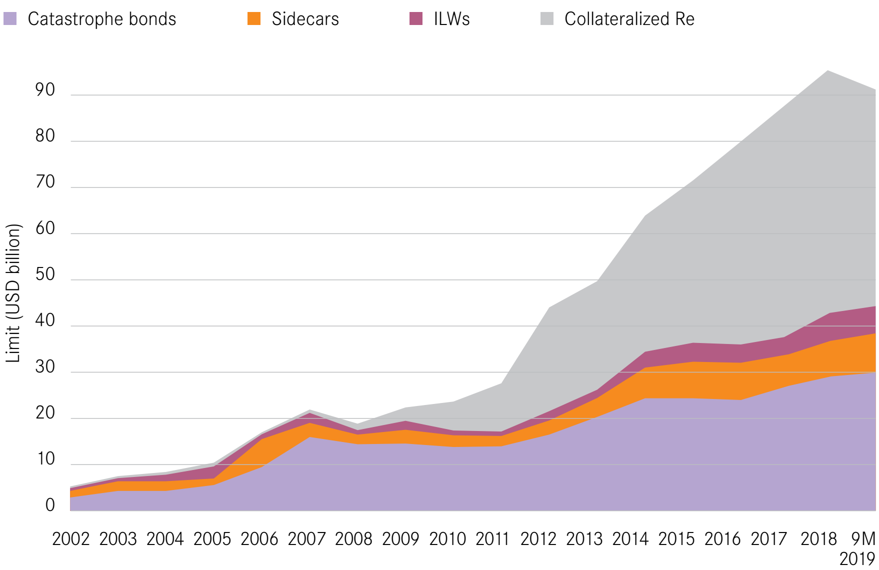
The convergence market is composed by two thirds with collateralised insurance solutions (e.g. collateralised reinsurance, sidecars and industry loss warranties) and by one third with tradable catastrophe bonds. We normally invest only in the latter category. Alternative capital has quadrupled in volume since 2010 and established itself as a reliable additional capacity provider to the reinsurance market. The market has continued to progress well despite the adverse experiences of 2017 and 2018, when sustained losses spanning across a number of risk categories were incurred for the first time. However, investors acted in a considerate manner. In the first nine months of 2019, alternative capital fell slightly for the first time since the 2008 financial crisis, before rebounding in the fourth quarter with USD 3.3 billion in new issues, mainly for natural catastrophe risks.

We believe the convergence market will continue to grow over the long term. With a volume of USD 93 billion, representing 15 %, it accounts for a non-negligible share of the total reinsurance capital. Moreover, the ILS market offers the capacities and solutions to close global insurance gaps. That will also drive growth over the coming years. Investors in alternative capital had to learn some lessons, but we see that as a positive development for the industry and a strengthening factor for the ILS market alike. ILS investors continue to actively pursue diversification opportunities. Moreover, the low correlation of ILS with financial market risks remains a key value proposition.

SI Re is establishing a good market position

We are convinced that our dual business model will strengthen SI Re's market position in a sustainable manner.

FIGURE 3: DEPLOYMENT OF ALTERNATIVE REINSURANCE CAPITAL



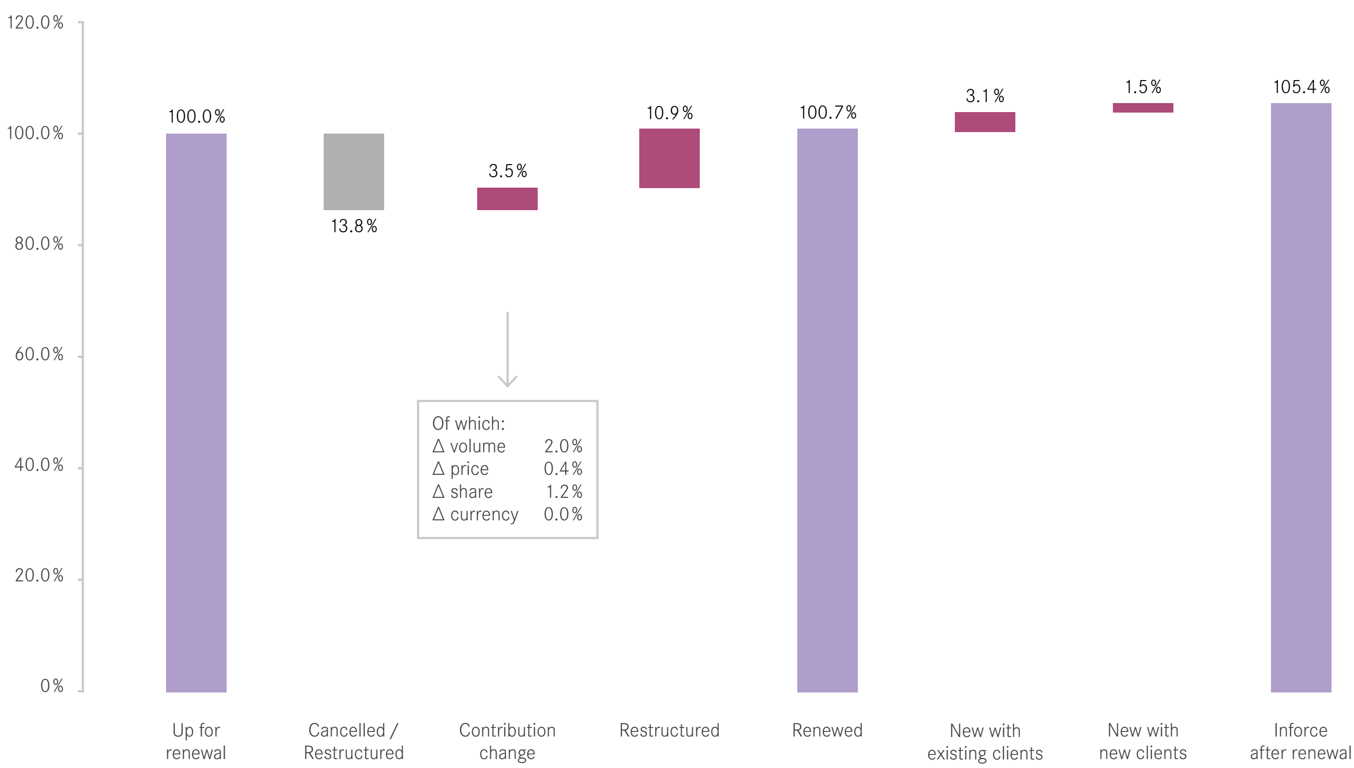
Source: Aon Securities Inc.

SI Re increases premium volume again

SI Re increased premiums again by +5.4 % in the renewal period up to 1 January 2020, thereby confirming that its long-term strategy bears fruit. The higher volume stems mainly from the sustained pleasing growth of new business, principally with existing clients. We also benefited from a higher premium volume in the primary insurance business together with higher prices and increased shares.

The insurance industry is still dealing with the challenges arising from the excess capacity within the sector. In the first nine months of 2019, dedicated reinsurance capital increased by 8 % to USD 625 billion (Source: Aon). In particular, «rated» reinsurance capital grew by an impressive USD 44 billion, due to renewed interest rate cuts and equity market gains. The alternative capital market, however, declined slightly in the first nine months of 2019 for the first time since the 2008 financial crisis. Yet, the growing volume of new natural catastrophe Insurance-Linked Security (ILS) issues in the fourth quarter indicated a market revival.

FIGURE 4: 1 JANUARY 2020 RENEWALS



Following the almost record-high natural catastrophe losses in 2017 and 2018 and the consecutive capacity reduction – initially in the traditional reinsurance market and subsequently the alternative capital market – retrocession prices rose in 2019 for the third consecutive year. The price disparity between the reinsurance and retrocession market thus expanded further. Moreover, reinsurance industry exposure to alternative capital in the retrocession market rose again. According to Moody's, the share of retrocession business covered by the convergence market has tripled over the past seven years. As a result, reinsurers are increasingly more dependent on alternative capital and are, therefore, more exposed to the unpredictability of capital market supply and demand dynamics. For now, however, this dependence is having a positive effect as rising retrocession prices are reinforcing pricing discipline among reinsurers.

January 2020 renewals – rational conduct despite diverging reinsurance strategies

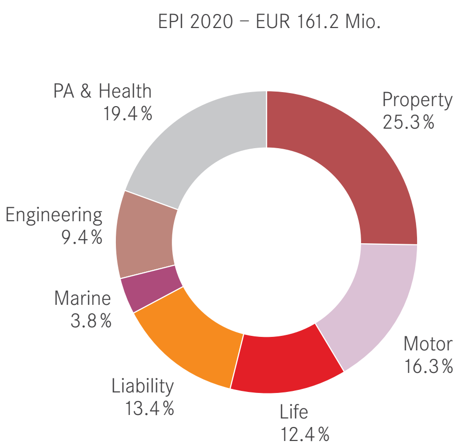
These developments over recent years caused reinsurers to adopt contrasting market strategies in the January 2020 renewals, leading to significant price and capacity deviations by region, line, claims experience and client relationship. In programmes with a positive claims experience, quite naturally almost no price increases incurred. On the other hand, those programmes that reported losses underwent significant price increases and even had to be restructured in some instances. While the overall capital level rose, many reinsurers reduced capacity for the loss-affected lines of business.

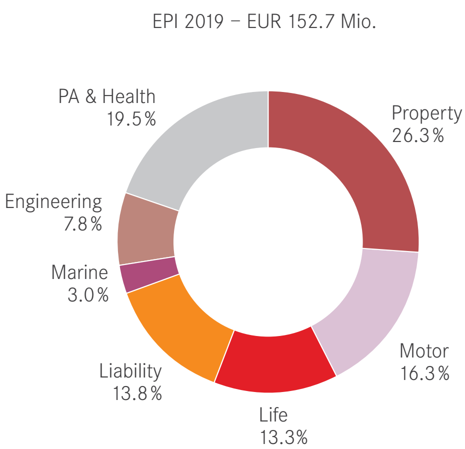
Growth through new business

SI Re traditionally renews almost its entire portfolio at the end of the year. Nearly 95 % of the portfolio was thus up for renewal by 1 January 2020. The renewal portfolio grew by EUR 8.5 million from EUR 152.7 million to EUR 161.2 million. Since the group business volume was unchanged, the share of external business rose from 63 % to 68 %.

New business with existing cedents was particularly pleasing with a 3.1 % in-

FIGURE 5: LINE SPLIT BY UNDERWRITING YEAR AS OF 1.1.2020





crease in volume, while new clients accounted for 1.5% growth. This positive trend has been continuing for five years now and testifies to the growing value of our brand.

Pricing level only exercised a moderate influence on our volume with a 0.4% increase. At the same time, this is the fourth consecutive year where we have seen positive price developments, indicating the growing profitability of our portfolio. The main price increases were in marine, long-tail business, property insurance (per risk) and catastrophe covers following some major loss events in the past three years. Capacity was scarce in the more loss-affected lines, namely marine, professional liability, and engineering. This resulted in some major price increases, allowing us to renew the business at improved conditions and even commit more capital to those programmes.

Furthermore, we transferred some of our catastrophe capacity to higher layers in order to gradually reduce our exposure frequency and strengthen our strategic position.

We also further diversified our geographical portfolio mix by entering the Hungarian and Croatian markets for the first time. There were no notable changes to the line-mix apart from increased engineering business.

France, Belgium and Luxembourg accounted for over 50% of our premium growth, and we achieved price improvements in those markets. We also grew our business in Spain and Italy and obtained higher prices for loss-striken programmes in both markets. In addition, we grew our market presence in almost all Central and Eastern European markets from 4.4% to 5.7%. Growth in the Scandinavian countries was also pleasing: premium volume was up by almost 27% over the previous year due to our ability to gain access to the more attractive long-tail business as well. In the DACH region, some cedents refrained from writing industrial business to return to profitability. Overall, we maintained our market share and grew our engineering business.

SI Re strengthens its team by recruiting a junior actuary with a passion for programming

In October 2019, a member of the IT staff at a Zurich hospital detected irregularities in the organisational computer firewall. His discovery came in the nick of time to limit the damage, since the hospital had been attacked by an aggressive Trojan virus. What kind of damage can a cyber-attack cause, and how can insurers model the random damage scenario of cyber-attacks more accurately? These are the kind of questions that Joachim Bösch, a young actuary who has been working for SI Re since September 2019, loves to get to grips with. Indeed, he finds them so fascinating that he devoted his Master's thesis in actuarial science at the University of Lausanne's Faculty of Economics to «shot-noise processes» – a calculation method that smooths out the effects of over-reactions on a claims curve, which usually takes some time to correct itself.

Joachim Bösch has already learned a great deal in the short time that he has been with SI Re since fall 2019. In the 1/1/2020 renewal period, he supported the actuarial team with their pricing and contract work in all business lines. Since January, he has been working with his colleagues on the optimal capital allocation in respect of the Swiss Solvency Test. This applies when an insurer is able to fulfil its liabilities to policyholders with a sufficiently high degree of probability, even under suboptimal conditions.

He is also working on a new model for tropical cyclones, which will enable SI Re to predict the patterns and loss intensity of hurricanes. To create a model of this kind requires extensive knowledge of deep learning, big data and programming, all of which Joachim Bösch acquired at the University of Lausanne. He completed his studies at the Faculty of Economics in 2019, thereby gaining a Master's degree in actuarial science. During his studies, he also worked with a start-up specialising in artificial intelligence by establishing their initial business plan.

On completing his studies, Joachim Bösch moved from the west of Switzerland to Zug. He particularly appreciates the corporate culture of his new employer as well as getting the opportunity to further develop his actuarial expertise across all business lines.

Programming is still very much one of Joachim Bösch's passions and one to which he still devotes much of his free time. For the past nine months, he has been working on a tool for automated equity trading. For recreation, he enjoys playing sports, in particular badminton, table tennis and volleyball. Moreover, he is into visiting museums. He is a fan of kitsch art, with his favourites being the French artists Pierre Commoy and Gilles Blanchard. They have been working together since 1976 in creating colourful worlds where painting and photography meet. Joachim Bösch also intends to take the examination of the Swiss Association of Actuaries in three years' time, once he will have acquired the necessary actuarial professional experience.

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