The Handbook of Insurance-Linked Securities

Edited by

Pauline Barrieu and Luca Albertini



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Tibor Winkler is one of the veterans of the ILS space, with over 11 years of transaction and business development experience. Working as a senior model developer at EQECAT involved in consulting projects, he turned his focus to the space in the late 1990s. Initially he carried out trigger development, design and execution of risk analyses and marketing for cat bonds. At EQECAT he worked on the first modelled-loss transaction, Namazu Re in 1999. From 2000 to the end of 2008 he worked as Director of Risk Markets at RMS. Until 2006 he worked on cat bonds and private transactions in increasingly senior roles; his name is associated with the first parametric Europe Wind trigger, used in Prime Capital in 2000, the first Europe Wind securitisation for a corporate client, Pylon Ltd in 2003, the first parametric earthquake transaction to take account of ground motion uncertainty, GI Capital in 2004, and many others. After five years of designing and executing innovative solutions for transactions, he took up a client development function in 2006 and became one of the principal drivers behind Miu and Paradex at RMS. From 2006 to the end of 2008 he was the leader in charge of expanding RMS's core client base to the capital markets. He holds a PhD and an MSc in Earthquake Engineering from the University of Tokyo and an MSc in Structural Engineering from the Technical University of Budapest.

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Introduction

Pauline Barrieu^a and Luca Albertini^b

There has been much said about the convergence of the insurance industry with the capital markets. Such convergence has taken many forms, and of the many attempts, some have been more successful than others. Insurance-linked securities, often referred to as ILS, have proven to be one of the most successful manifestations of this convergence, of how capital market technologies can find applications within the insurance industry, and how insurancerelated risk can be transferred to capital market investors. As outlined in later contributions, there were approximately \$13 billion of tradable non-life insurance-linked securities and \$24 billion in tradable life insurance-linked securities as of the end of 2008. In addition, whilst traded insurance-linked securities are the most visible and headline-catching forms of risk transfer to the capital markets, there are a number of other forms of placement of insurance risk into the capital markets, including:

- Private placements of insurance-linked securities (also called 'club deals') which involve a small number of skilled investors, and which are estimated to be of significant size.
- Sidecars on non-life insurance risk, which reached an estimated \$6 billion of capacity after Hurricane Katrina, and found new interest in 2008 with reduced retrocession capacity being available in the market.
- Insurance-linked derivatives, which are mostly over-the-counter contracts in life and non-life risk, transacted by financial institutions, brokers and regulated exchanges.
- Weather derivatives, also available via financial institutions, brokers and regulated exchanges.
- Traded life insurance policies life settlements which have been warehoused in significant size by financial institutions and are being distributed to capital markets as well as private investors.
- Collateralised reinsurance and industry loss warranties (ILW), which are typically reinsurance contracts but frequently backed by capital market investors (such as dedicated insurance-linked securities investors and hedge funds) which fund the collateral posting and assume the ultimate risk of the relevant insurance events.

The outstanding capacity deployed by capital market investors on the above mix of instruments was estimated to be well above \$50 billion in 2008.

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Moreover, the market has been enriched by a wider and deeper range of market participants over the last decade:

- Each year, new *originators* have approached the insurance-linked securitisation market, including a number of insurance and reinsurance companies, corporations and government institutions.
- Some of these originators who have tapped the insurance-linked securities market with a transaction have then sponsored *new transactions* covering new risks or *repeat transactions* on the same perils, thus capitalising on their positive experience with the technology, and in some cases have established *risk trading units* with the task of constantly monitoring opportunities for purchasing or ceding risk to the capital markets.
- A number of *modelling* and *actuarial firms* have the ability to perform risk analysis on different life and non-life risks with the rigour and methodology needed to describe them to capital market investors.
- A growing *number of risks* have been modelled for capital market transactions, thus enriching the potential for diversified exposures for investors.
- Diverse range *investors* have approached life and non-life insurance-linked securities across the risk spectrum. Investor types have ranged from money market managers, pension funds, banks, other institutional investors, insurance and reinsurance companies to a growing number of asset management companies dedicated to investing only in insurance-linked securities risk.
- There is a larger community of *arrangers*, *financial institutions* and *brokers* who have equipped themselves for origination and structuring of transactions, secondary trading of insurance-linked securities and in some cases providing secondary market pricing indications (although not yet at the level of market making).

After a decade of continuous growth, the insurance-linked securities market is now at a stage of consolidation of its past successes and further expansion, despite the recent turmoil in the capital markets, as discussed later in various chapters of the book. However, one could argue that the actual size of the market is still very small compared to its full potential. Supporting market participants with a transparent discussion on various aspects of this market and introducing insurance-linked securities to a wider class of originators and investors are essential in making this niche market more understandable, more transparent and more accessible. This is really what has motivated us in undertaking this project and what we would like to achieve with this handbook.

The main objective of this handbook is to present the state of the art in insurance-linked securitisation, by exploring the various roles for the different parties involved in the transactions, the motivation for the transaction sponsors, the potential inherent pitfalls, the latest developments and transaction structures and also the key challenges faced by the market.

To do so, we have decided to gather specialists with different backgrounds and experts with many years of experience in this field, representing the various perspectives and aspects of this market. Each chapter is therefore a contribution by one or several experts in insurance-linked securitisation. As a result, this book presents an independent view on the sector, with contributions from some of the key market players who have agreed to support our initiative. On the other hand, due to the healthy growth of the market and to the number of credible market players, it has not been possible to include all of those institutions that would have been able to provide valuable contributions within the targeted size of this handbook.