

# Life Catastrophe Benchmarking Study 2013

*Global Comparison of  
Life Catastrophe Covers*

*October 2013*



## Scope of the Study

Aon Benfield's study of global life and accidental death catastrophe covers aims to allow clients to better understand reinsurance purchasing patterns and to benchmark retention, quantity and price within countries and versus global peers.

The study should stimulate the discussion with insurers as to how to optimise their existing reinsurance programmes as well as improve their terms and conditions.

Aon Benfield performs local and global reinsurance surveys because high quality market data continues to be an area of particular interest for our clients. The competitive insurance markets around the world force insurers to compare purchasing behaviours and prices and use that information to influence strategic decisions.

With four years of observations, this study gives a unique opportunity to explore the trends in a traditionally stable business.

### Key statistics

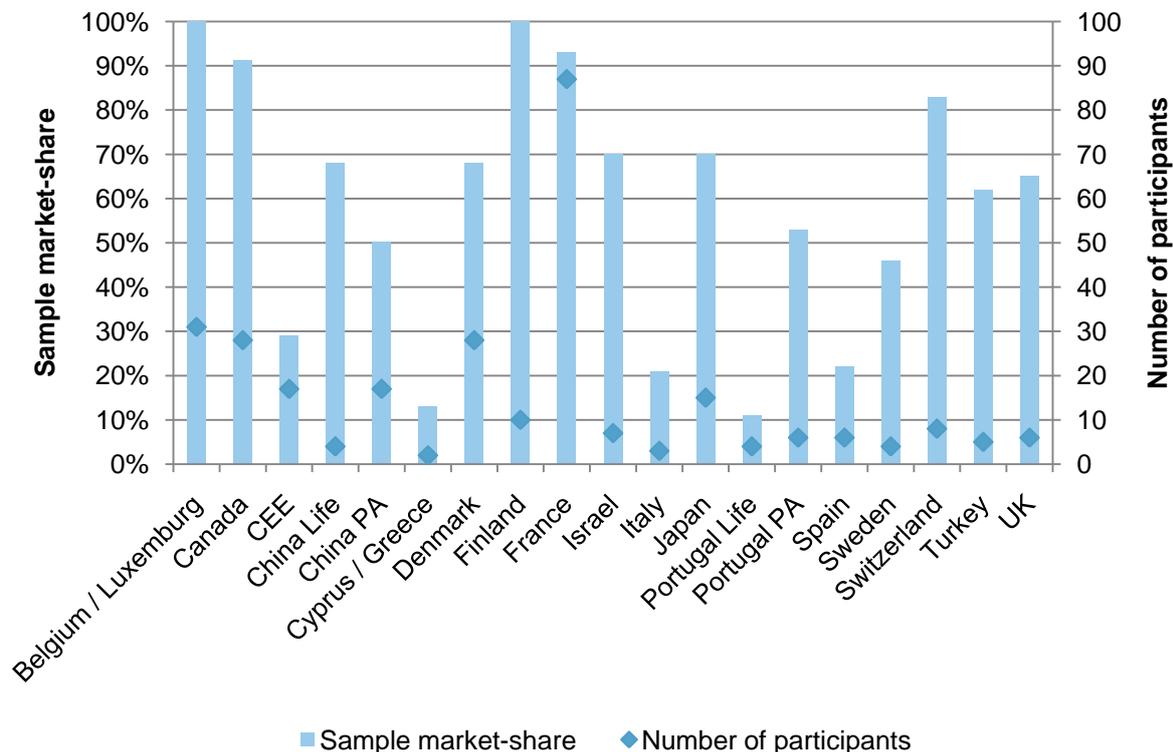
- Some 290 life companies, including non-Aon clients, participated in this year's survey, representing an average local sample market-share of above 60% and providing an accurate reflection of the current life catastrophe market.
- Our sample captures details of treaties representing the substantial amount of EUR 7.5 billion of purchased capacity for XL per-event covers –the most popular type of catastrophe protection.
- The geographical scope of the study is mainly **Europe**, with 217 European participants out of the 290. It also includes non-European countries to allow comparisons. This year, they comprise **Canada, China, Israel and Japan** – respectively representing a large mature and an emerging market; a terrorism-exposed and a natural catastrophe-exposed market – providing an interesting perspective.

### Key findings

- XL per-event remains the favourite type of life catastrophe cover: 90% of the observed treaties.
- The number of companies not buying any life catastrophe protection is decreasing, as **European** companies prepare for Solvency II: from 22% in 2011 to 17% in 2013.
- The capacity purchased in **Europe** for XL per-event has constantly grown since 2010: by +17% between 2010 and 2013, reaching EUR 6.6 billion in 2013.
- The earthquake and tsunami that occurred in March 2011 have impacted the **Japanese** market: +10% in Rate On Line (ROL) between April 2012 and April 2010.

## Study Participants

Fig 1: Sample market-shares and numbers of participants



On average, the market share per country is 60%. The highest representations reflecting 100% of the market are in **Belgium/Luxemburg** and **Finland**, shortly followed by **France** and **Canada**.

Market-shares are calculated with Life, Accident and Health (LAH) gross premium incomes, except for **Canada** where we refer to the number of companies, as per previous studies.

In **China** and **Portugal**, life business and personal accident (PA) are completely separate businesses and we included both lines of business in our surveys.

**CEE** market-shares varies from 15% in **Poland** to 54% in **Czech Republic**.

### Useful background on participants

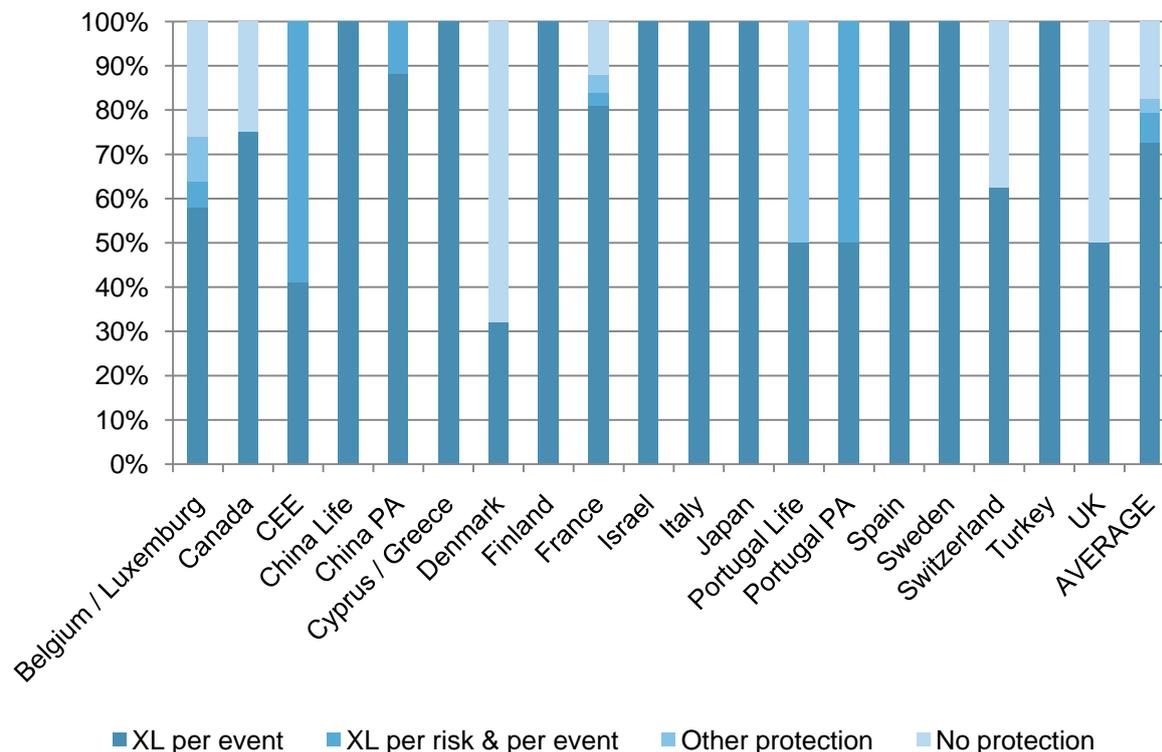
The **Japanese** renewal is in April, while **Europe** and **Canada** usually renew their reinsurance in January. The data presented in this report are as at 1<sup>st</sup> January 2013 for all countries, meaning **Japanese** data are as of April 2012 renewal.

With very few participants in **Luxemburg**, this country had to be analysed along with **Belgium** – which has similar life catastrophe covers – for confidentiality matters. The same applies with **Cyprus** and **Greece**, which participate to the study for the first time.

**CEE** includes **Austria, Bulgaria, Czech Republic, Hungary, Poland, Romania, Russia** and **Slovakia**. Further commentary has been provided by Aon Benfield brokers in **Netherlands** and **Germany**.

## Types of Covers

Fig 2: Distributions of types of life catastrophe protections (in number of companies)



XL per-event treaties represent around 90% of the life catastrophe protections, which has been consistent since 2010. The distribution among types of covers does not differ much between European and non-European countries. We do not observe any substantial take-up of emerging types of cover, such as extreme mortality catastrophe bonds.

The number of companies not taking out reinsurance has decreased from 22% in 2011 to 17% in 2013<sup>1</sup>. We believe Solvency II is the main driver of the increase in reinsurance purchase in Europe, as companies prepare for the forthcoming regulation and buying reinsurance will reduce capital requirements.

In the **Portuguese** personal accident (PA) market, half the companies opt for a pure per-event treaty and half opt for a combined per-risk and per-event treaty<sup>2</sup>. And in the **Portuguese** life market, half the companies opt for a pure per-event treaty too, but the other half opt for surplus treaties, meaning the remaining catastrophe exposure is limited.

In **Germany**, surplus treaties are still common too. Therefore there is often relatively little remaining catastrophe exposure, and few German companies purchase other catastrophe protection.

We note that the major part of **Danish** LAH companies does not purchase any catastrophe cover, due to the limited exposure and the lack of recent losses.

<sup>1</sup> In 2010, for several countries the first edition of the local surveys did not capture such companies.

<sup>2</sup> Per risk and per event treaty implies that one large loss can trigger the treaty, while per event treaties normally require at least two to three deaths before the treaty works.

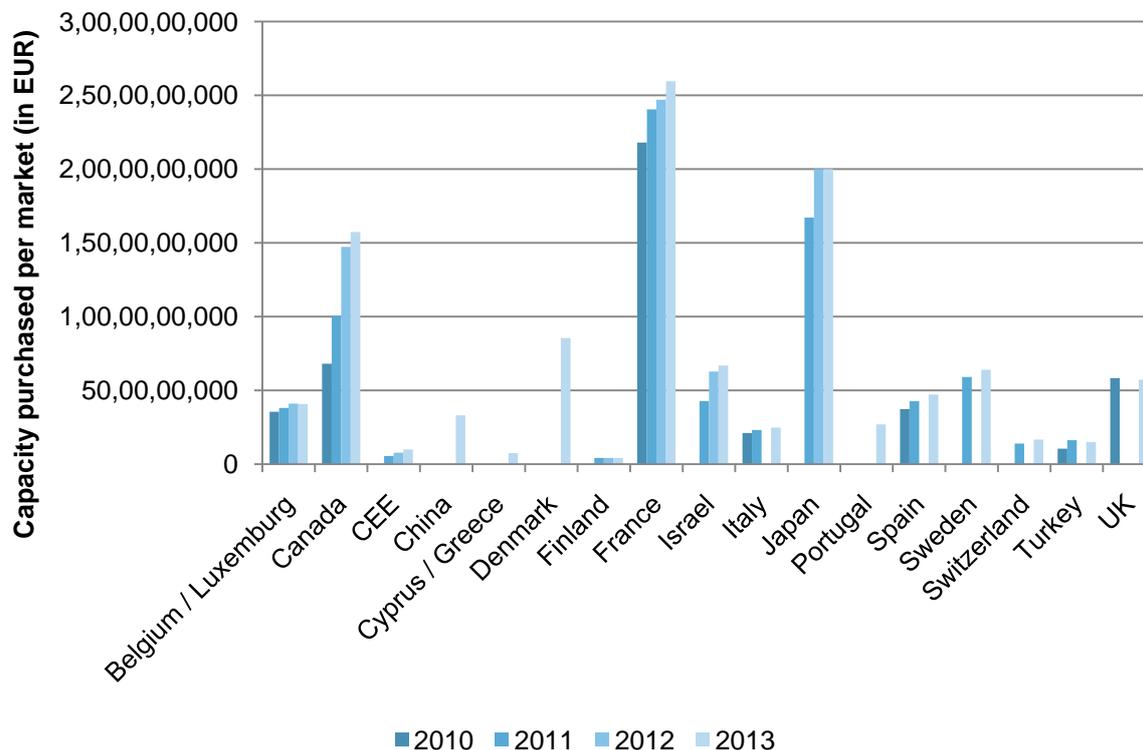
In **Japan**, the participants this year are all PA companies except for one. They usually buy a per-event cover, as observed this year and in the previous editions. The majority of Japanese life companies (70%), including Kyosai companies, do not have any catastrophe cover, as observed in the 2011 edition, since they consider the risk small and diversifying when compared to the overall risks (like asset risk) in their life book.

In **The Netherlands**, insurers hardly buy catastrophe XL covers for protecting their life insurance business because they consider the probability of loss from terrorism, earthquake, concentration and pandemic risks not sufficiently large for the following reasons:

- The **Dutch** Terrorism pool covers life as well, although the terrorism pool has a deductible, and Dutch insurers do not feel the need to purchase additional cover.
- The **Netherlands** is not exposed to earthquake risk, except the very south of the Netherlands. The gas drilling in the north that causes small earthquakes is not considered to be substantial enough to buy cover.
- As there are many insurance companies active in the **Dutch** market, it is assumed that a significant concentration event will be spread over the insurance companies relative to their market shares. Therefore, concentration risk itself is not a trigger to purchase reinsurance.
- This leaves the pandemic risk but the **Dutch** insurance companies consider that this risk is so remote, that they are willing to take this risk themselves and not consider reinsurance.

## Market Capacities

Fig 3: Estimated capacities purchased per market in XL per event treaties



### Current situation

Aon Benfield estimates the current **European** capacity in XL per-event at EUR 6.6 billion based on adding the capacities for each European country in the survey and extrapolating the result.

**Finnish** purchased capacity is EUR 42.4 million. Finland is covered via the Retro Life pool by an XL per-event treaty, where each of the ten companies benefits from a EUR 40 million limit and there is a EUR 40 million market limit. The pool also provides a EUR 40 million aggregate XL.

Our **Danish** sample also includes Forenede Gruppeliv, pool of six companies purchasing one unique catastrophe cover for their life portfolios.

**Portugal** purchases EUR 50 million of capacity in XL per-event for its PA business and between EUR 200 to 250 million for its life business. In addition Portuguese PA business is covered with a total capacity of EUR 240 million in XL per-risk-and-per-event.

We observe seven different currencies in **CEE** treaties, and we estimate that this region purchases EUR 100 million in XL per-event covers, and EUR 250 million in XL per-risk-and-per-event, subject to exchange rates.

## France

**France** is still the largest market in Europe in terms of purchased catastrophe covers and Aon Benfield has carried out an annual benchmarking study for ten years on the per-event XL treaties purchased by the French LAH market.

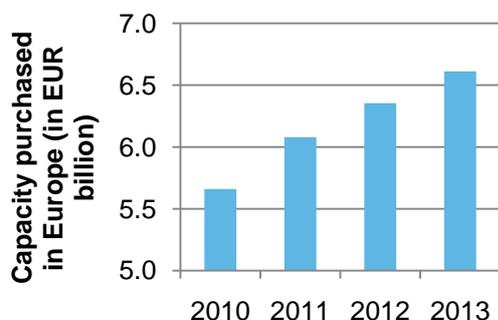
In 2013 we estimate the **French** market has purchased EUR 2.6 billion in per-event XL treaties. The capacity purchased has been constantly growing since 2007. Last year, the growth was 5% and 37% cumulative since 2007.

Including the local catastrophe pool managed by the BCAC (Bureau Commun des Assurances Collectives) the **French** capacity even goes up to EUR 3.2 billion.

## Canada

**Canada** is in the top three too, in terms of capacity purchased in life catastrophe protection and Aon Benfield Canada has carried out an annual benchmarking study since 2003. **Canada** also presents the biggest increase in market capacity among the studied countries: around +130% from 2010 to 2013. The number of **Canadian** treaties is diminishing although capacity purchased is increasing due to mergers and acquisitions.

## Evolution since 2010



We estimate that all observed countries keep or increase their level of life catastrophe protection. And Solvency II should help this trend to persist in **Europe**. The average growth of purchased capacity in Europe in XL per-event is 17% between 2010 and 2013.

**Italian** participating companies are the same every year and we have observed a continuous growth in the capacity purchased, resulting in +18% between 2010 and 2013.

In **Switzerland**, the only noticeable movement is that one of the local insurers purchased a second XL per-event cover for 2013. Therefore the estimated **Swiss** market capacity rises from CHF 177 million the previous years to CHF 205 million.

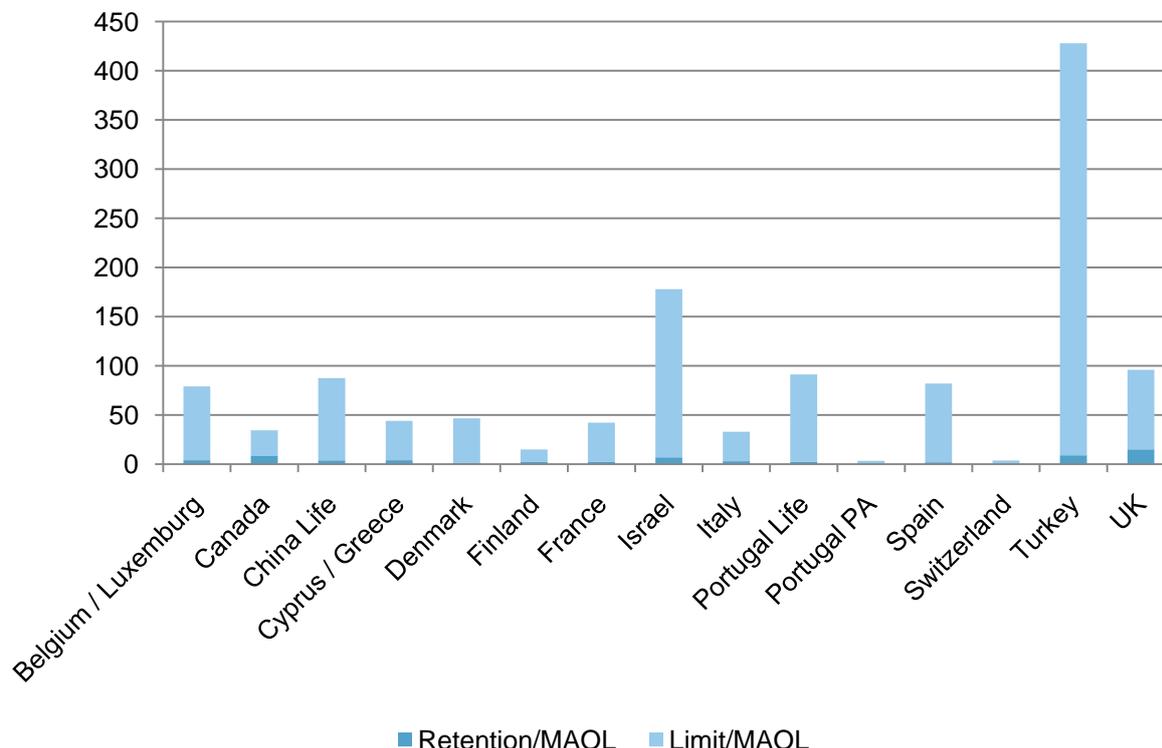
In **Israel**, we observe treaties in New Israeli Shekels and in US dollars. However, regardless of currency, the capacity purchased has massively increased by 57% since 2011, the first year of Israel's participation in the study.

In **Turkey**, we observe several currencies in the treaties too, so the estimation of the market capacity over the edition years is subject to exchange rates. We estimate the level of capacity purchased is stable and today's amount is around EUR 150 million.

**UK** market capacity purchased in XL per-event is hard to estimate due to lack of data in our sample. Our 2013 estimation is around EUR 600 million, which is a limited +3% increase from 2011 on constant sample basis.

## Cover Sizes

Fig 4: Average XL per event structures related to Maximum Any One Life (MAOL)



In the graph above, we can clearly observe that **Israel** and **Turkey** purchase the highest covers in terms of potential number of lives. This phenomenon is due to their specific life catastrophe exposures – terrorism and earthquake:

- Average **Israeli** limit reaches now 171 MAOLs, which is three times the 2011 level.
- **Turkish** average XL per-event treaty limit is 419 times the MAOL.

In **Switzerland** almost all the observed MAOLs have been increased between 2012 and 2013, hence a mechanical drop from 24 MAOLs in excess of 3, to 5 MAOLs in excess of 1.

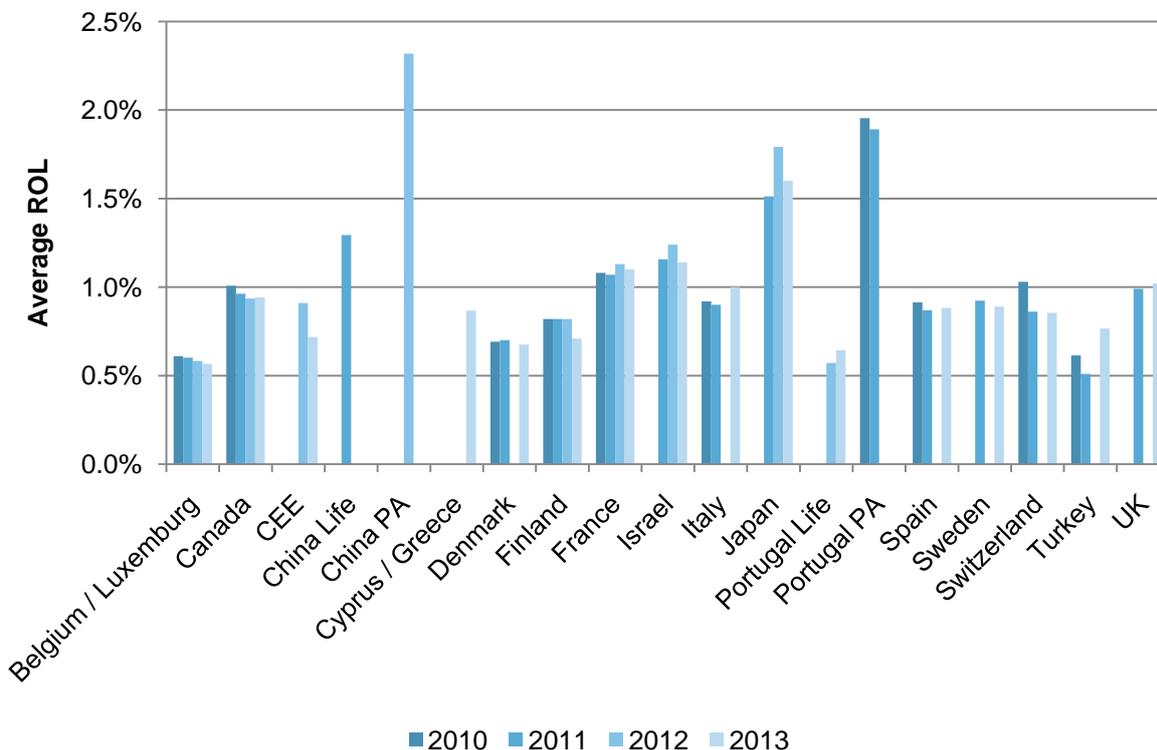
In the **Portuguese** PA market, the XL per-event structures are low, with an average of 3 MAOLs in excess of 0.1 MAOL, and the XL per-risk-and-per-event average is 31 MAOLs in excess of 1 MAOL.

**Belgian** average structure has been growing since 2011: from 68 MAOLs in excess of 6, to 75 MAOLs in excess of 4.

There is no significant change in the average **Japanese** structure, which was 46 MAOLs in excess of 10 MAOLs in 2010.

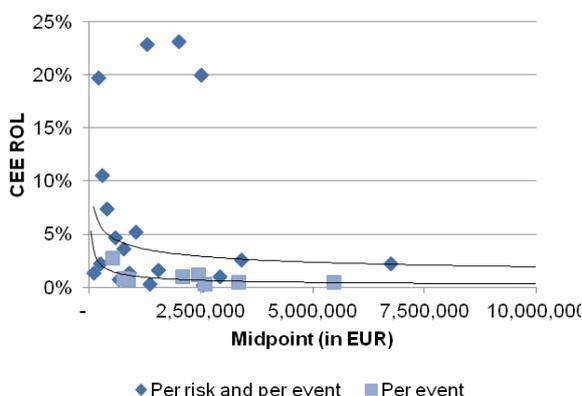
## Reinsurance Prices

Fig 5: Average Rates On Line (ROL) of the observed XL per event layers



## Current situation

The experience in **China and Portugal** shows that PA covers tend to be more expensive than life covers primarily because covers for life portfolios relate typically to individual insurance, which have significantly less concentration risk than the group insurance policies of PA portfolios.



In **CEE**, where a majority of companies buy combined per-risk and per-event covers for historical reasons, the average ROL is 6.0% for XL per-risk-and-per-event and 0.7% for pure XL per-event. All together the average ROL for 2013 is 4.3%.

Apart from **China**, all observed regions have a 2013 average Rate on line (ROL) between 0.6% and 1.6%, with a **European** average of 1.0%.

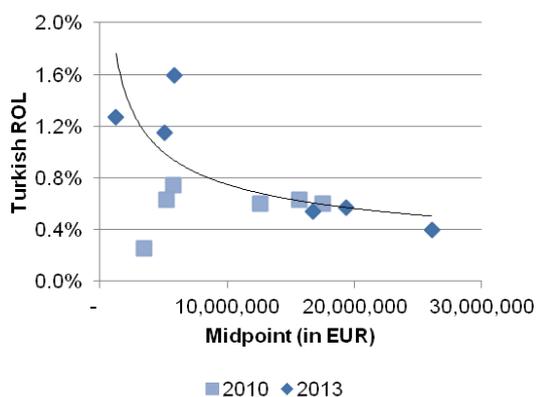
The **Chinese** average ROL of 1.9% is relatively high due to the low level of protection bought, i.e. limits are quite small compared to Europe.

## Evolution since 2010

**Japan** has faced an increase in life catastrophe reinsurance price, +10% between 01.04.2010 and 01.04.2012 renewals, due to the 2011 catastrophe.

**Belgian** average ROL is mechanically decreasing as **Belgian** limits increase.

2010 average **Swiss** ROL is higher than the following years only due to one very expensive layer brought back to a normal price level in 2011.



**Turkey** had a flat price curve in 2010, i.e. the ROLs were independent from the cover sizes. Many first layer prices have since been increased and currently the Turkish curve is nicely convex. As a consequence, the average ROL is +25% higher in 2013 than in 2010.

We can also note a sensible evolution in **Finland**, where the 2013 renewal of the Finnish pool multi-year cover resulted in a -13% ROL reduction.

## Other Considerations

### Reinstatements clause

In **Europe**, the favourite reinstatement clause has been one reinstatement at a cost of 100% of the original reinsurance premium since the first year of the Aon Benfield study.

- 80% of the observed layers have one reinstatement, the remaining 20% mainly having two reinstatements.
- 80% of the observed reinstatement prices are 100% of the original reinsurance premium, the remaining 20% mainly being for free.

### Number of layers

In **Europe**, the typical XL per-event treaties have one layer, sometimes two or three.

**Chinese** companies however prefer to split their cover in more layers; on average five layers for the life products, and three for the PA products.

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