NEWSLETTER
INSURANCE ECONOMICS

THE GENEVA ASSOCIATION

No. 70, July 2014

Alternative Capital in (Re)insurance

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What do we mean by alternative capital?

What is capital? Economists have isolated three notions of capital that overlap but are not identical. The first and most usual meaning of capital is the long-term, i.e. perpetual, financing of companies. As such, it is equivalent to shares. Capital is, therefore, an investment which can take the form of an illiquid asset (typically, industrial equipment for doing business) or a liquid asset, i.e. an asset you can easily sell when needed. Last but not least, capital in the form of shares is associated with voting rights. As such, it is a source of power in the company as soon as you are able to amass sufficient shares in order to get a blocking minority or a majority, in stand-alone or in association with other shareholders.

What changes when I add "alternative" to capital? What is alternative capital, especially with regard to capital? It is not a well-defined notion, but rather, a subjective concept, each expert filling it with a specific content. Of course, the different contents have a lot of common ingredients, the first one being the fact that it is not traditional. I suggest we adapt ourselves to this negative definition and try to characterise what has been currently subsumed under it. For that purpose, I propose a rather large definition that is influenced by the regulatory definition of capital: alternative capital is able to absorb losses, in (re)insurance companies for what concerns us, but it is not, or at least not yet, part of the shareholders' capital of the insurance company.

Strictly speaking, alternative capital can take on many forms in insurance. Nevertheless, I suggest to later focus on those forms which are provided by financial markets or private placements. The table below tries to give a quick description of the variety of forms taken by the alternative capital in (re)insurance: their nature, their precise form, their normal time horizon, their collateralisation, their accounting and their origin.

Nature of the Instrument	Precise Form	Time Horizon	Collateralisa-tion	Accounting	Origin
Insurance contracts	- Reinsurance (incl. retrocession) - Collateralised Reinsurance - Monetisation of VIF[1]	- Short term - Short term - Multi-year	No Yes Yes	by profit and loss (PL) account	Reinsurance private placement
Insurance-linked securities	- Cat bond, ILW,[2] CWIL[3] - Sidecar - Mortality bond/swap - Longevity bond/swap - Monetisation of VIF	- 2–4 years - Multi-year - 3–5 years - 30 years - Multi-year	Yes	in profit and loss account	Financial markets

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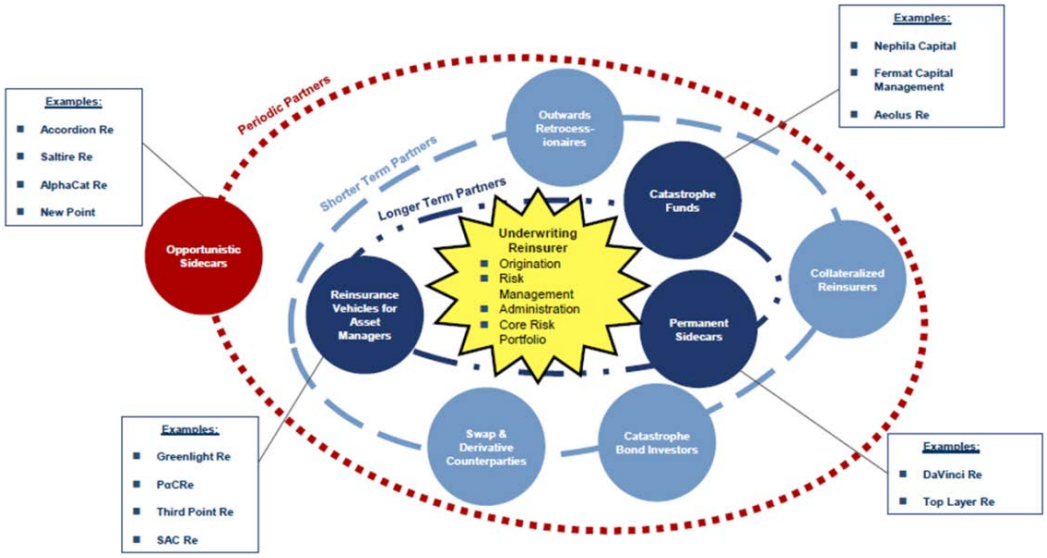
1 Value in force.
2 Industry loss warranty.
3 County weighted industry loss.

Contingent equity line	Catastrophe equity put	3 years	No	by balance sheet	Financial markets
Other contingent capital	- Hybrid debt - Equity conversion - Write-down CoCos	- Perpetual - Multi-year - Multi-year	Yes	by balance sheet + PL at the write-down	Financial markets

In fact, as represented in the graph below, the (re)insurance risk transfer universe encompasses long-term partners, i.e. the traditional reinsurer, and shorter-term partners in many forms such as collateralised reinsurers, cat bond investors, permanent sides and special vehicles for assets manager as well as periodic partners, i.e. the opportunistic sidecars which have recently emerged. Alternative capital covers the two last categories of risk transfers.



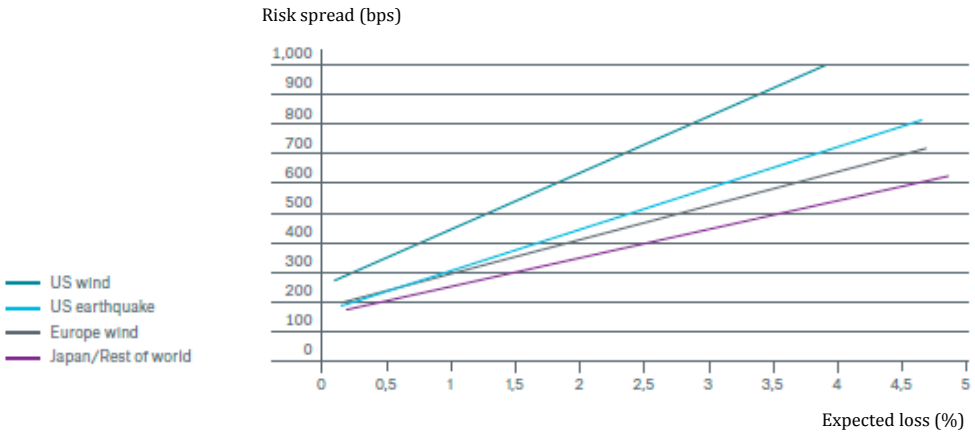
Source: SCOR.

Why is alternative capital useful?

We have seen an increasing amount of alternative capital flowing into the (re)insurance industry. The reason for this attractiveness is manifold. First of all, it is, for investors, a very attractive investment for three main reasons:

– The remuneration, i.e. LIBOR plus a spread depending on the expected loss, is in itself attractive compared to a risk-free interest rate, for example (cf. graph 1)

*Graph 1. Cat bond pricing forecast**

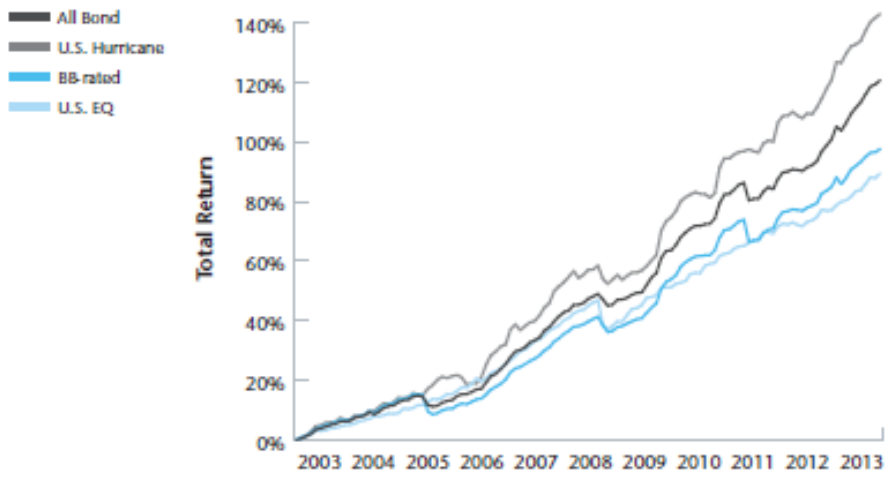


Source: Munich Re (2013), p. 6.

* Diversifying perils are Pacific Hurricane in Mexico, European Windstorm, Australia Cyclone, Japanese Typhoon and Japanese, Turkish and Mexican Earthquake.

– This remuneration is especially attractive in an environment of very low interest rates, as you can get, at least at short term, a higher remuneration combined with lower volatility (cf. graph 2). Of course, this has no reason to last forever.

Graph 2. Historical performance of Aon Benfield ILS indices

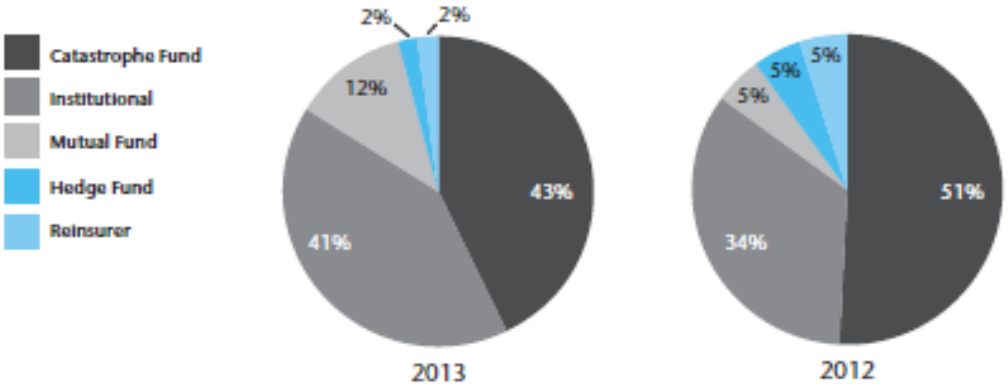


Source: Aon Benfield (2013a), p. 21.

– Last but not least, it is an attractive source of diversification for investors because of its decorrelation from financial risks. This is all the more attractive as investors have the impression of being saturated with financial risk.

Alternative capital helps to reduce the risk premium on insurance risks. It effectively reduces the volatility of investors' portfolios thanks to its contribution to diversification. Moreover, it fragments the risk into smaller pieces. This fragmentation is already done by reinsurance (for example, SCOR has 4,000 clients, and a much larger number of shareholders, i.e. 30,000), but only partially in comparison to financial markets and alternative capital. Investors in alternative capital are dominated by investors that are adding their contribution to the pool of existing investors in reinsurance (cf. graph 3).

Graph 3. Investor by category (Years ending June 30)



Source: Aon Benfield (2013a), p. 13.

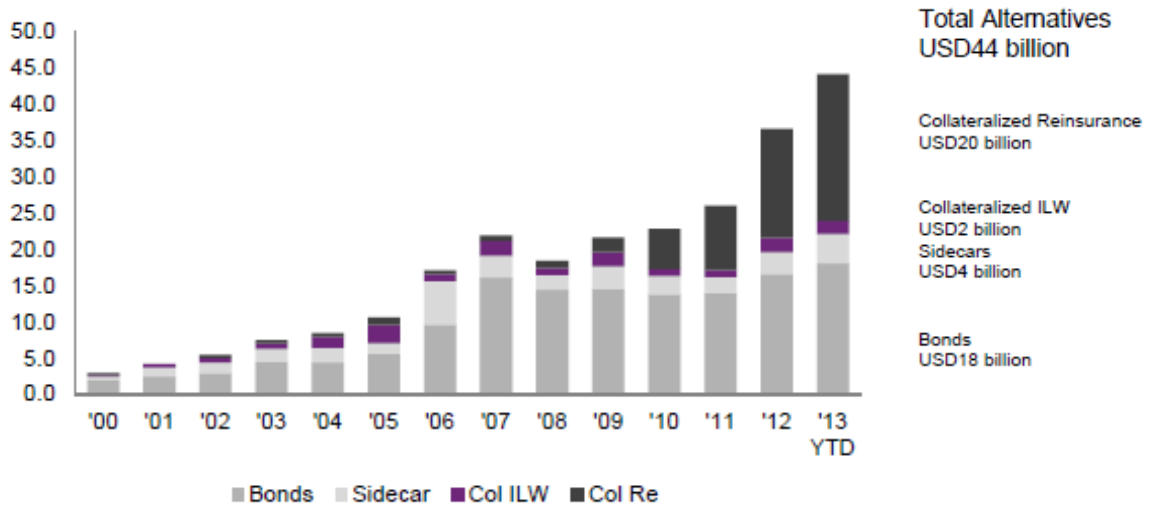
Finally, alternative capital helps solve a few insurance challenges. It enlarges the market capacity for covering extreme losses, whose need is growing rapidly, when traditional capital is becoming scarcer because of Basel III and Solvency II regulations. A seldom noticed effect concerns the improvement of the safety of the cover for non-extreme risks and clients, as it improves the coverage of the most extreme events (nat cat, pandemic, etc.) and therefore reduces the probability that one of these extreme events might put the company in default and damage those clients that are insured for other risks. In fact, underwriting of extreme events introduces inequality between clients according to the kind of event they are protected from, but, by targeting extreme events, alternative capital reduces or even eliminates this inequality. Moreover, it helps arbitrage excessively demanding regulations in favour of more rational regulations. It could be able to provide monetisation opportunities for future profits, again, even if currently the amount of money available for that purpose is rather limited because of the financial crisis and the relative aversion of investors for this kind of operation, and it is difficult to manage incentives. Of course, as other market innovations, it helps reveal hidden information on costs and risk aversion.

Importantly, most alternative capital operations are recognised by (re)insurance regulators and supervisors. Solvency I, since the reinsurance directive, recognises them, subject to authorisation. Solvency II goes a step further in the recognition of alternative capital by abolishing quantitative limits and by embedding alternative capital in the standard formula and by allowing internal models to incorporate it.

Which articulation between alternative financial markets and traditional reinsurance?

These two techniques of transferring risk out of insurance companies are currently in competition, not overall but for certain risk categories, i.e. extreme risks for which sufficient reliable data and expert judgements are available. For these risk categories, they are more or less interchangeable, at least for big insurers. Because of the increasing liquidity of the market, competition is also increasing between these two techniques, with a growing role given to alternative capital (cf. graph 4). This competition puts significant pressure on certain lines of business and their pricing, especially with regard to natural catastrophes in the U.S. in Florida, which is a highly opportunistic market.

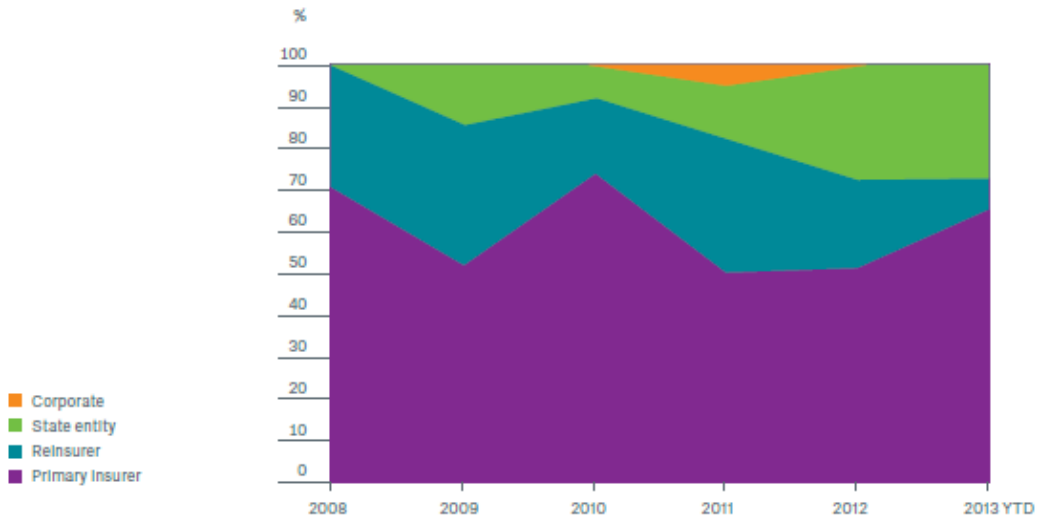
Graph 4. Bond and collateralized market development



Source: Aon Benfield (2013b), p. 5.

Nevertheless, one should not overestimate this competition which is more confined than often thought because of the intrinsic limitations of alternative capital. First of all, current exceptionally low interest rates for an exceptionally long period of time have artificially and temporarily boosted the attractiveness of alternative capital, as explained above. Even if the perspectives for the European Central Bank (ECB) and the eurozone are those of a protracted period of very lax monetary policy, one can currently perceive the first advanced signals of a changing mood of monetary authorities in the U.K. but also in the U.S. Moreover, the expansion of the cat bond markets is largely due to state entities and not to private (re)insurers and to a structural change on the market (cf. graph 5).

*Graph 5. Cat bond Issuance volume split into sponsor types**



Source: Munich Re (2013), p. 4.

* Cat bonds with Euro-denomination were converted into $-amounts using the exchange rate on the respective day of issuance.

Because of asymmetric information, alternative capital market is focusing on strictly targeted risks, mainly well modelled ones and peak risks, i.e. on very high layers with low rates on line, which represents a limited share of the overall reinsurance business. A basis risk remains in case of (semi-)parametric products. It can be substantial, esp. for cat bonds, and it can only be covered by a reinsurance arrangement, with the consequence that alternative capital and reinsurance are complementary from that point of view. Of course, indemnity based ILS are gaining momentum, representing more than half of sponsored cat bonds in 2013, but this appetite of investors for indemnity based ILS is particularly driven by the current financial environment of very low interest rates. One has also to notice that there remain potential legal and regulatory uncertainties that have not yet affected the alternative capital market, as few cat bods have been triggered until now; they could affect alternative capital market substantially as cat bonds, for example, become more common and their probability of being triggered increases, as demonstrated by the current lawsuit concerning the Mariah Re cat bond filed in 2011. Moreover, there remain many significant differences between alternative capital and reinsurance which substantially limit the scope for potential competition between them: loss trigger, emergency and speed of loss settlement, etc.

In fact, alternative capital and reinsurance appear to be as complementary as substitutable techniques. First of all, reinsurers are contributors to alternative capital markets, which are an investment and risk-taking opportunity. Reinsurers have been providing 5 per cent of total alternative capital in 2012 and 2 per cent in 2013. But, the converse is also true: alternative capital is a capacity that is available to big companies and to direct insurers as well as to reinsurers. In fact, reinsurers are largely using it by issuing cat bonds or mortality bonds so that one-third of alternative capital is backing reinsurers.

Moreover, reinsurance, as a long-term actor, plays a role that alternative capital, as an opportunistic actor, is not able to play. Notably, reinsurance contributes to the completeness of the risk transfer market. Reinsurance is a continuously open and available source of protection, even at the height of financial crisis, when financial markets, and alternative capita with them, can be closed when protection is most needed, whatever its price, as was the case for many months after the collapse of Lehman Brothers. As we have seen, reinsurance is able to cover the basis risk left uncovered by (semi-)parametric ILS. More generally speaking, reinsurance contributes to stabilising prices as it is well-equipped for fine-tuning diversification and smoothing shocks, while alternative capital magnifies the consequences of shocks, as they are not able to sufficiently diversify their portfolio of risks and need therefore to pass on, in their prices, the costs of major shocks.

It is up to 1st tier, well-diversified reinsurers to address the challenges of these complementarities by optimising the "diversify and disperse" model which is emerging with alternative capital and which support and improve the quality of the reinsurance service. The current value destroying dimension of alternative capital in reinsurance is not due to the alternative capital as such but to the currently too lax monetary policy, which creates a bubble by artificially but substantially boosting the attractiveness of alternative capital.

References

Aon Benfield. (2013a). Insurance-linked securities. Chicago, IL: Aon Benfield, Inc.

Aon Benfield. (2013b). Reinsurance market outlook. Chicago, IL: Aon Benfield, Inc.

Munich Re. (2013). Insurance-Linked Securities (ILS)—Market Update Q3 2013. Munich: Münchener Rückversicherungs-Gesellschaft.