A Comparison of Strategic Reinsurance Programs (SRP) with Banking Activities and other Insurance and Reinsurance Activities

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Abstract

In this paper we compare a strategic reinsurance program (SRP) with life insurance covers, retrospective premium calculation methods, covers by captive companies, bank guarantees, and investment activities of clients in a bank. The comparison leads to an interesting analysis of the SRP, which is generally recognized by the authorities as a reinsurance cover. The paper confirms the validity of this assessment. It also provides evidence that in many respects an SRP – which is an important unconventional reinsurance cover - has more insurance-specific properties than other, conventional reinsurance covers, and shows why an SRP is a reinsurance cover rather than a banking operation.

Key words:
Strategic reinsurance program, cumulative result, standard premium, loss experience discount, intermediate and final result adjustments, basic premium, pre- and post-financing reinsurance treaties, bonus and malus, partially and totally senseless reinsurance treaties, strategic objectives, parent company, captive company, fronting company, stand-by credits, a priori and a posteriori banking activities.

1. Introduction

An SRP is an important, frequently applied unconventional reinsurance cover, the word unconventional relating to the fact that a fund of sorts is built up in the books of the reinsurance company as part of the reserves it uses for reinsurance covers. De jure the fund belongs to the reinsurer but de facto it belongs mainly to the ceding

company. In this paper we set out to prove that an SRP is indeed a reinsurance cover and that it is correct to describe it as an unconventional reinsurance cover offering the ceding company many services beyond those provided by a conventional reinsurance cover. We shall compare an SRP reinsurance cover with

- life insurance covers
- retrospective premium calculation methods
- covers by captive companies
- stand-by credits and
- investment activities of clients in a bank.

Beyond demonstrating the functioning of an SRP and its characteristics, these comparisons with other specific insurance activities and with certain banking activities will enable us to understand its significance for the (re)insurance market and indeed the gap that it fills for certain international companies and for insurance companies in the palette of (re)insurance covers that are offered on the (re)insurance market and even outside of it.

2. A brief description of the SRP and its characteristics

We have already described an SRP cover and its features in detail in a previous Astin paper[1]. Here we restrict ourselves to noting the main characteristics of an SRP that we need for the comparison with banking and other (re)insurance activities. An SRP is a long-term reinsurance program for a ceding company which expects relatively high profits for the current year and the coming years. If it intends to park part of its profits (before tax payments) as reserves outside the company, in order to achieve its strategic goals, an SRP certainly presents an interesting and flexible possibility. Aside from the intention to balance insurance results by adequate reinsurance, the ceding company's strategy can include goals like balancing tax payments over a certain number of years, the intention not to reduce dividends, etc. An SRP is an interesting, useful and thrifty tool for simultaneously achieving such goals.

An SRP is an unconventional reinsurance cover that provides a ceding company with the possibility of parking profits before taxes in a so-called

[1] Baruch Berliner, The Strategic Reinsurance Program (SRP), XXXth International Astin Colloquium, August 1999, Tokyo, Japan, Proceedings, p. 1-20

"cumulative result" (CR) fund. The amount in the fund is booked as part of the reinsurer's reserves. It is set up by premiums paid into the fund, called "standard premiums" (SP) and possibly also by additional premiums (AP), also paid into the fund, and by interest income on the CR level, called the "loss experience discount" (LED). The outflow from the fund is composed of reinsurance loss payments, possibly of profit commissions (PC), of "intermediate result adjustments" (IRA), and, in the case that the CR is positive upon cancellation, by a "final result adjustment" (FRA).

A technical reinsurance risk also exists for the reinsurer if the CR becomes negative. As long as CR<0 the reinsurance company has a loss of interest income that is possibly partially compensated by a so-called "basic premium adjustment" (BPA). If CR<0 upon cancellation, the reinsurer has a technical reinsurance loss that is equal to the absolute amount of the CR and also possibly partially compensated by a final result adjustment (FRA) in favor of the reinsurance company.

Although SRPs are usually non-life reinsurance covers, interest rates (for the fund) are taken into account, and when speaking of technical reinsurance results we mean the cumulative results over time after taking interest rates into account. That is, the CR can be positive but smaller than the interest income accumulated over time in the fund, and the SRP's technical result remains positive. By contrast, in a conventional non-life reinsurance cover the reinsurance result accumulated over time would have been negative.

One of the reinsurer's main SRP services is placing part of its reserves at the disposal of the ceding company, in an amount that must be equal to the CR level. This means that an upper level (L) must be fixed for the CR that is equal to the limit that the reinsurer can or is willing to book as its own reserves for the respective SRP.

Since the CR, which consists of the accumulated net insurance results – that is, the technical profits of the ceding company from the start of the respective SRP – and the investment profits on them, is published as reserves of the SRP reinsurance company, the ceding company is shifting the tax payments on these profits to the time it chooses for its money to flow back, partially or fully, in the form of an IRA or an FRA. In particular, the profits on the respective CR level, if it is positive, are increasing the respective reserves of the reinsurance company, which is why the ceding company does not have to pay taxes on them until they flow back to it.

The premium that the reinsurance company gets for the technical reinsurance risk it runs, for its administrative costs and mainly for the services it provides on the SRP is called the "basic premium" (BP). The technical reinsurance risks and the risk of investment losses, when the SRP is negative, are built into an SRP large enough to ensure that the SRP can be recognized by the insurance supervision authorities as a reinsurance cover. The total premium, including the standard premium, which leads to the transfer of the ceding company's profits into the reinsurer's reserves is then officially recognized as a reinsurance premium and no taxes have therefore to be paid on it by the ceding company.

Everything that can be said about an SRP as an unconventional reinsurance cover can also be applied to an unconventional insurance cover of an insurance company for a large, usually industrial company.

3. A comparison between an SRP and a life insurance cover

Parallels:

- In both covers, a life insurance cover and an SRP, interest income is taken into account in favor of the client.
- In both covers annual premiums are paid to build up timely accumulated funds for the client. The fund built up is the "saving element" of the cover. It is usually also the main part of the cover as well as the main reason for it, in case of an SRP even more so than in the case of a life insurance cover.

Several other features of a life insurance cover and an SRP are similar, if not almost parallel.

Similar characteristics

- The parallel to the premium part of a life insurance cover that is not put aside for the insured person but is payment for the life insurance company's risk and for its administrative costs is the basic premium in an SRP. In a life insurance cover, however, there is only a partial parallel to the reinsurer's SRP services.
- In the case that notice is given by the person who is covered by a life insurance policy the refund includes all or part of the investment income set aside for the insured person, depending on the insurance conditions and the

time that notice is given. Similarly, in the case of an SRP, upon termination, a final result adjustment is transferred to the ceding company; if CR>0, this is a high percentage but less than 100% of the CR.

- The reason why the final result adjustment has to be less than the CR is the necessity to reduce the unconventional properties of an SRP in such a way that it can be recognized as a risk bearing reinsurance cover taking into account that an SRP is usually designed for property/casualty covers.
- In life insurance and in an SRP cover, the higher the fund the more the risk of the risk carrier is reduced. In both cases, the fund, excluding technical reserves for reported claims and IBNR, is higher the longer the cover runs, as long as no payments start. The probability of payments starting quite quickly is much higher for an SRP than for a life insurance cover.

Differences

The first set of differences concerns the risks and the intentions of the respective covers. An SRP contract can only be terminated by notice of a contract partner, whereas in life insurance the cover is usually terminated in a natural, stochastic way that is fixed in the life insurance policy (unless the insured person gives prior notice).

Life insurance is first and foremost a timing risk insurance, in contrast to an SRP cover, which is mainly characterized by a risk amount that usually includes the fund's level and beyond this by the absolute value of the maximal negative level that the CR can reach.

The flowing off of a life insurance policy is predetermined to a much higher extent than in an SRP contract. In life insurance the fund's development is determined by a single event, the death of the insured person, or his surviving to a certain age. That is, the money flow and the development of the fund are precisely known in life insurance, depending only on the insured stochastic event. There is no possibility of several stochastic events reducing an insured's "fund" during its life insurance policy.

In an SRP cover the fund's development is, however, completely unknown a priori and can change, from year to year. The money flow is not known a priori and should not be known, since both treaty partners are interested in introducing risk

elements in the money flow in order to keep the SRP, on one hand, as close as possible to a conventional non-life reinsurance treaty and, on the other hand, to maintain a large degree of flexibility for the ceding company. An SRP cover therefore shows "stochastic insurance features" more extensively than does a life insurance policy.

To give a more detailed account, in the first years of an SRP contract the probability that the fund will grow is high but bad results can occur which reduce the CR or even lower it to a negative level. When the CR approaches its upper limit diverse instruments like a substantial decrease of the standard premium, a profit commission and/or an intermediate result adjustment are built into the SRP structure in order to achieve a substantial reduction of the CR's growth or, in case of not very substantial claims, even a reduction of the CR level. By contrast, in life insurance the permanent fund's growth is more linear (until the insured event takes place).

The risk balance for a life insurance portfolio emanates from the large number of insured persons, who are virtually independent risks as far as the insurance company is concerned. Such a risk balance does not exist for an SRP cover. The risk balance of an insurer's life portfolio is thus achieved by the law of large numbers, which helps the risk carrier to support its insured persons in their intention to obtain security for themselves and for their families in less advantageous times in the distant future. By contrast, an SRP cover does not need a balance over large numbers of claims and is constructed to keep the reinsurer's risk sufficiently small in comparison to the expected volume of the SRP, and to accomplish the ceding company's intention of obtaining an efficient instrument that supports its long term strategy.

To sum up:

Certain SRP features are similar to the corresponding features of a life insurance cover and clearly correspond to the respective features of a (re)insurance cover. On the other hand, we observe significant SRP features that are different from the corresponding features of a life insurance cover, and which are much less predetermined and more notably "stochastic insurance features" than the corresponding life insurance features.

Therefore, the comparison to a life insurance cover proves that an SRP is a reinsurance cover, as we claimed in the introduction.

4. A comparison between an SRP and a reinsurance cover with retrospective premium calculation methods

Every reinsurance treaty with retrospective premium calculation methods is either a pre-financing, a post-financing reinsurance treaty, or a combination of pre- and post-financing covers. Pre-financing reinsurance treaties cover a ceding company for relatively high reinsurance premiums that exceed the total reinsured claims amount on the cover with a higher probability than usual. If the reinsurance results are good, part of the amount by which the premium exceeds the total claims amount will then be repaid to the ceding company according to a formula that is fixed in the pre-financing treaty. As opposed to a treaty that provides for a bonus, that is, for a reduced reinsurance premium for the next year, if the results of the current year are good, in the case of a pre-financing treaty, the reinsurance company a posteriori repays part of the reinsurance premium to the ceding company at the end of the current year if results are good. This means that repayment is also made in the case that the pre-financing reinsurance cover is not extended to a subsequent period of coverage – as opposed to a bonus that is not granted in case of cancellation of the treaty.

A post-financing reinsurance treaty is the opposite of a pre-financing reinsurance treaty. The reinsurance cover is granted for a relatively low reinsurance premium that may later be exceeded with relatively high probability by the total reinsured claims amount covered by the reinsurance treaty. In the case of bad reinsurance results, the ceding company then has to pay an additional a posteriori premium, according to a formula that is fixed in the post-financing treaty, as opposed to a malus of a bonus-malus treaty, where in the case of bad results premiums are increased by the malus in the next period of coverage (if a subsequent period of coverage exists, i.e., the treaty is not terminated).

In every reinsurance premium calculation the administrative costs, the risk that is transferred to the reinsurance company by the reinsurance treaty, as well as the risk taken over by the reinsurer due to lack of knowledge about everything concerning the risk must be taken into account. Therefore, the reinsurance premium must also include loading factors that increase the premium, alongside the reinsured's total expected claims amount – which is also not known exactly. The necessity for an additional premium alongside the expected total claims amount is also known from risk theory, which proves that premiums that are equal to the total expected claims amount sooner

or later lead to bankruptcy. The loading factors decrease the probability of the reinsurance premium being exceeded by the total claims amount. Therefore, the usual reinsurance treaty is closer to a pre-financing reinsurance treaty than to a post-financing reinsurance treaty, and we can now better understand why we demand that in case of a pre-financing reinsurance treaty the premium should exceed the total reinsured claims amount with a higher probability than usual.

Reinsurance treaties with retrospective premium calculation methods are usually a combination of pre- and post-financing conventional reinsurance treaties.

When are such treaties concluded?

Reinsurance treaties with retrospective premium calculation methods are concluded when the ceding company and the reinsurance company are interested in completing a certain reinsurance coverage but they cannot agree on the “correct” reinsurance premium. So, they agree to introduce into the treaty an interval with a premium that seems acceptable to the reinsurer as an upper limit and a premium that seems acceptable to the ceding company as a lower limit. The two partners to the contract then agree on an initial premium within the interval, and a retrospective premium calculation is then applied on the interval. Retrospective results “then show which premium estimate, the upper or the lower limit of the interval, was more correct” and premium corrections are accordingly applied a posteriori within the premium interval.

Comment 1

A priori, the ceding company believes a lower premium to be correct for the reinsurance cover more than does the reinsurer. The former is therefore more “optimistic” than the latter and gets part of the premium back in the case of a good claims development, as in the case of a pre-financing treaty. By contrast, the reinsurance company is more “pessimistic” and proves to be right when claims payments are relatively high and exceed the initial premium payment. The initial premium has then been too low and the ceding company has to pay an additional, a posteriori premium, as in case of a post-financing treaty.

We see here that if a ceding company and a reinsurance company agree to disagree on the correct reinsurance premium and to find a solution via retrospective reinsurance premium corrections we come to a combination of a pre- and post-financing treaty, where the ceding company’s “optimistic” point of view, if correct,

leads to the pre-financing features of the treaty and the reinsurer's "pessimistic" point of view, if correct, leads to the post-financing features of the treaty.

Comment 2

As long as the total reinsured claims amount for a period of coverage is within the fixed "premium interval" the reinsurer runs no risk. His administrative costs are, however, spread all over the cover, that is, they also spread over the "premium interval". The final, corrected reinsurance premium P is, therefore, equal to the total claims amount C multiplied by a constant f>1, that is, $P = fC$ for $m < fC < M$, where m is the lower and M the upper limit of the "premium interval" that is fixed in the reinsurance contract.

For $fC<m$, $P = m$ and for $fC > M$, $P=M$.

Comment 3

In practice excess of loss reinsurance, mainly in liability branches, is the reinsurance branch where the ceding and the reinsurance companies may disagree on the right reinsurance premium and therefore agree on a "premium interval", and an initial reinsurance premium p within the "premium interval" is paid at the beginning and corrected, a posteriori, to a final reinsurance premium P, when the reinsurance results are known.

Comment 4

In comment 2 we mentioned that the reinsurer runs no risk as long as the total reinsured claims amount is within the "premium interval". Since there is therefore no reinsurance cover within the "premium interval", Gunnar Benktander called such a treaty partially senseless.

A partially senseless reinsurance treaty has two limit cases. In one limit case the upper and lower limits of the interval become equal, $M = m$, and the initial premium p is fixed and equal to the final premium P, that is, $p = P = m = M$. The reinsurance treaty is then a regular treaty with no a posteriori premium corrections and it makes sense completely.

In the other limit case $m = 0$ and M is infinite or equal to an aggregate cover limit A that cannot be exceeded by any accumulation of covered claims. The

reinsurance company then runs no risk at all and has a guaranteed profit of (f-1)C. The partially senseless treaty then becomes totally senseless!

The two limit cases illustrate that the larger the "premium interval" the larger is the senseless part of the treaty and the more senseless it becomes – and vice versa.

Having described and discussed reinsurance covers with retrospective premium calculation methods we can now compare them with an SRP cover.

To what extent can an SRP be interpreted as a pre- or a post-financing treaty?

The standard premium SP(k+1) of an SRP for the beginning of period of cover k+1 should preferably be a function of the difference D(k) = (L-CR)(k) at the end of the period of cover k, k = 1,2,3,…, where L is the upper limit for the reinsurer's reserves for the respective SRP that should not be exceeded by the CR, as described in section 2. The SP should therefore be reduced as the CR increases, in order to avoid the level of the CR becoming larger than L. The function SP(k+1) = f(D(k)) must therefore decrease with decreasing D(k). This demand leads to a bonus that is built implicitly into the SRP structure since, the larger the CR, that is, the smaller D becomes, the better is the claims experience, accumulated over time, and the larger the "bonus" on the standard premium becomes, that is, the more the SP is reduced, compared to its initial value.

Of course, SP(k+1) = f(D(k)) increases with increasing D(k), that is, with decreasing CR. This means that a "malus" is implicitly built into the SRP structure, which increases as the claims experience accumulated over time worsens.
An SRP is thus a bonus-malus reinsurance contract based on claims experience that is accumulated over time, taking into account the interest income over time on the CR, LED, as defined in section 2.

This feature of an SRP – which fixes the premium a priori for the next year of coverage, according to the accumulated claims experience over time – is in contrast to the principal feature of pre- and post-financing treaties, where the initial premium is adjusted a posteriori, at the end of the respective year of coverage (or later) according to that year's claim experience.

There are, however, other features, mainly of pre-financing treaties that are in accordance with certain SRP features. No matter how good a claims experience is, the standard premium, SP, should certainly not be reduced to zero or become negative. On the other hand, L is fixed as an upper limit to the cumulative result CR,

that is, D=L – CR > 0. If, as result of good claims experience D becomes very small in the course of time, the interest income on CR, LED, which is increasing with CR, becomes significant. If CR(k) + SP(k+1) + LED(k+1) > 0, then, in the case of good claims experience in year k+1, D(k+1) may be negative. In order to avoid this possibility money should flow back to the ceding company in time if, as a result of good claims experience in year k, CR(k) remains too close to L(k) at the end of the year. Such a flow back of money is an a posteriori flow back from the CR fund to the ceding company, which is typical of a pre-financing treaty.

In section 2, we introduced two different tools into an SRP scheme, a profit commission PC (on profits accumulated over time) and an intermediate result adjustment, IRA, to enable an a posteriori flow back at the end of a period of coverage that becomes necessary, as described, in the case that D > 0 becomes too small.

Comment

We should point out here the possibility of a paradoxical situation. If CR is very close to L an a posteriori money flow back to the ceding company may become necessary in an SRP, as a result of large interest income, LED, even in the case of bad claims experience, that is, of a negative technical reinsurance result in that year. The following reasons account for the possibility of this paradox.

The larger the CR becomes, the larger the income on investment that is assigned to the fund, on one hand, and the smaller the SP that flows into the fund, on the other hand. At the same time, the smaller the SP, the larger is the probability that the claims of the respective period of coverage will exceed SP, that is, the larger the probability of a negative technical reinsurance result. Since the income on investment that is assigned to the fund becomes dominant in such a case in relation to the SP, and therefore with high probability also to the technical result of the respective year, an increase of the CR can easily occur despite a negative technical result.

A money flow back to the ceding company despite a negative technical reinsurance result is, of course, impossible in the case of a conventional, pre-financing reinsurance treaty.

In the case of very bad claims experience accumulated over time, on the other hand, if despite the LED the CR becomes negative, there is no possibility of assignment for a retrospective adjustment in favor of the reinsurance company, in

order to avoid a reduction of the SRP risk elements that are built into the SRP scheme. The reinsurance company's SRP risk potential should thus not be reduced by an a posteriori flow back of money from the ceding company to the reinsurance company in case of bad claims experience accumulated over time. At most, the reinsurer may get partial compensation for his losses on interest income, which in section 2 we called the "basic premium adjustment", BPA, and which corresponds to the LED in the case that the CR is positive.

In the case of good claims experience, an a posteriori flow back of money to the ceding company may be requested by the ceding company or may even become necessary, which is characteristic of a pre-financing treaty. By contrast, no a posteriori money flow back to the reinsurance company (a feature characteristic of a post-financing treaty) comes up when an SRP experiences bad claims.

This observation is correct as long as the SRP is running.

When the SRP comes to an end, however, money should a posteriori flow back to the ceding company as a final result adjustment (FRA), in the case of CR>0. However, an a posteriori flow back of money to the reinsurance company as an FRA, in the case that CR<0, may also be provided for in the SRP contract wording.

As the FRA relates to the SRP only one time (the end of the SRP), aside from the pre-financing feature in the case that CR>0, there may also be one time the post-financing feature in the case that CR<0.

To sum up:

An SRP is much closer to a bonus-malus reinsurance treaty than to a (conventional) reinsurance treaty with retrospective premium calculation methods. In special cases, however, it may also include a pre-financing characteristic, and, when the SRP comes to an end, even a feature that characterizes a post-financing treaty. It makes sense therefore to say that an SRP is a "pure" reinsurance cover rather than a "partially senseless" reinsurance cover with retrospective premium calculation methods, as described above.

The bonus-malus reinsurance features of an SRP underscore the fact that an SRP is a reinsurance cover.

In the comparisons made in this section, we have touched upon the advantages of the cumulative aspects of the SRP's coverage over time and its substantial flexibility via CR, LED, IRA, PC and FRA, all of which underscores the size of the

services of an SRP to the ceding company beyond those of a conventional reinsurance treaty.

5. A comparison between SRP and covers by captive companies

A large industrial or commercial corporation will often establish a captive company to provide internal cover for the risks of the entire enterprise, that is, the parent company and its subsidiaries worldwide. The captive company is often founded in a country other than the parent company's principal location, the choice being dependent upon the taxation advantages it provides, amongst other things.

We have to bear in mind that a captive company is an insurance and not a reinsurance company, unless it is a subsidiary of an insurance company. We also have to remember that an SRP can be given to an industrial or commercial corporation by an insurance company. Since a reinsurance company reinsures only insurance companies its SRPs to industrial corporations must be given via an insurance company, which serves in this case as a front company.

A captive company can also serve as a front company. When it does so, the covers it provides and the SRP are integrated to achieve the strategic objectives of the parent company.

Similarities between an SRP and the operating of a captive company, and between an SRP and a captive company itself

A captive company and an SRP have some fundamental similarities that contribute to the fulfillment of the parent company's strategic aims:

- A captive company is an insurance company, whereas an SRP is a strategic reinsurance program offered by a reinsurance company that may be structured to fulfill certain strategic requirements of a client. The services provided by the SRP are similar to those given by a captive company.
- A captive company like an SRP are used not only to cover risks of the parent company but – in a wider frame – to help realize strategic targets.
- A captive company, like an SRP, contributes to regulating the company's results, as well as to achieving a better internal balance of the company's results and a better balance of its tax payments over the years.

- Both an SRP and a captive company may help the company to build up reserves for catastrophes which may partially be parked with the captive company, or within the CR of an SRP scheme.
- In both cases the company must proceed carefully – in the case of an SRP in coordination with the (re)insurance company – to guarantee that the supervisory authorities recognize the payments for coverage as premium payments that can be deducted from the company's profits for tax payments. Lately the deduction of expenses in tax free countries from taxation has become very difficult.
- In both cases the covers for the company are usually given in a suitable place, outside the country of the parent company's principal location.

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<u>Differences between an SRP and the operating of a captive company, and between an SRP and a captive company itself</u>

- Usually a captive company is a subsidiary of the parent company and the money that is parked as claims reserves is parked in-house, internally. By contrast, in an SRP the ceding company, namely, the front company, parks its money with the reinsurer. This external parking is advantageous since, for strategic reasons, the parent company is often interested in parking such reserves "as far away as possible", for example, in order to better provide security for the SRP reinsurance premiums to be recognized as premiums by the supervising authorities.
- We have introduced into the SRP the term intermediate result adjustment (IRA) for two main reasons: as a tool to prevent the cumulative result from growing beyond its fixed upper limit, as we have described in the last section, and in order to use it as a strategic tool when CR is sufficiently large and the (re)insured needs some money from the fund for purposes other than loss payments. A captive company does not have such an operative tool for strategic purposes. Therefore an SRP is preferable in this respect to a captive company.
- A captive company operates on an insurance basis, an SRP usually on a reinsurance basis.

- An SRP (re)insurer can usually provide cover even for risks that touch the limits of insurability of risks and for which it may be very difficult to get a cover on the conventional (re)insurance market. If, on the other hand, a captive company grants a cover for risks that are close to the limits of insurability, the cover for the parent company may remain in-house if the captive company does not find coverage for such risks on the reinsurance market. In such a case it makes sense to use the captive company as a front company for an SRP in favor of the parent company, that is, to coordinate the activities of the captive company with an external strategic reinsurance program.
- A captive company is usually an intermediate station that transfers large parts of the parent company's risks to various reinsurance companies. A significant part of its profits may then emanate from reinsurance commissions. In extreme cases, the captive company, like other small insurance companies, may become a broker rather than an insurance company. In the case of an SRP, on the other hand, it is preferable to transfer all of the risks to be covered unconventionally to the same SRP – that is, the same reinsurer.
- The parent company does not, of course, get any income on investment on the reinsurance premiums for risks that are passed on by the captive company (with the exception of the reinsurance premiums that are passed on as standard premiums to an SRP reinsurer). This is in contrast to the SRP, where the investment income LED is given on the CR, that is, on the accumulated profits, on the reserves and on prior investment income.
- A captive company must be founded and run according to the laws and rules of the "host country". This requires much effort and is certainly not cheap. None of these problems exist in an SRP.
- Usually it is essential for a large part, possibly even more than 50%, of the captive company's premium income to derive from covering extraneous risks and not from risks of the parent company. This is usually required by the home country of the parent company in order to assure that the captive company is not viewed as a totally in-house company. Otherwise the money transfer from the parent to the captive company for covering risks may not be recognized as premiums by the supervising authorities and may not be tax deductible from the parent company's profits. Covering a large volume of extraneous risks

may entail considerable additional risks, costs and problems for the parent company, which is usually not in the insurance business. None of these problems arise for the parent company when it concludes an SRP treaty.

To sum up:

We have now described many of the reasons why an SRP is preferable to the formation of a captive company and many of the problems that arise for the parent company when it founds a captive company, and that do not exist if it is covered by an SRP. We can therefore conclude that if the (re)insured company has the choice of fulfilling its strategic objectives by an SRP or by the formation of a captive company, it will for many reasons do well to opt for an SRP.

Of course there may be other reasons for the formation of a captive company but these are outside the frame of this paper, in which we limit ourselves to comparing a captive company with an SRP.

6. A comparison between an SRP and banking activities

A comparison between an SRP and banking activities is required because an SRP operation may be viewed, on the first sight, as a banking rather than a (re)insurance operation.

The main characteristic of the SRP as a reinsurance cover is its pre-financing operation, which sets out to build and maintain a fund from which the ceding company is allowed to withdraw money when it needs it. The similarities to placing money in a bank account from where it can, of course, be withdrawn when needed are obvious.

The placement of money into and its withdrawal from an SRP fund are, however, subject to restrictions that are specific to insurance. These restrictions form a main difference between an SRP cover and the placement of a client's money in a bank for investment purposes.

We can distinguish principally between two types of banking activities:

1. activities where the client borrows money or gets guarantees for all kinds of operations, that is, where he needs the support or the assistance of a bank and

2. activities where he uses the bank for investment operations.

Contrary to an SRP there exist also unconventional reinsurance covers that have mainly post-financing characteristics. In such covers the ceding company pays only very low annual premiums for large risks and for services that the reinsurance company offers. We can say that the ceding company pays just a reduced basic premium (BP). Such reinsurance covers apply to very large risks and in the case of a loss a very large amount may be paid out. This payment is "repaid" in a structured form over a certain time period in the form of a posteriori reinsurance premiums, usually as embedded in the wording of the respective unconventional reinsurance treaty. In providing this unconventional cover, the reinsurance company plays the role of a bank that lends out money, such as a mortgage, to a client, who subsequently has to return the money to the bank in a structured way that is predetermined from the beginning of the operation. Since our unconventional "post-financing" reinsurance cover also has to grant a kind of reinsurance cover for the low premium that is transferred from the ceding company to the reinsurer in order to be recognized as a reinsurance premium by the authorities, "the time of lending out the money by the reinsurance company", that is, the time when the loss that leads to reinsurance loss payments occurs, must remain stochastic. This fact is one of the main differences between such an unconventional "a posteriori" reinsurance cover and the banking activity of lending out money.

Since an "a posteriori" unconventional kind of reinsurance is not a subject of this paper, we stop after that brief comparison of borrowing money from a bank with a posteriori kinds of unconventional reinsurance forms and return to the SRP, which should rather be compared with the second kind of banking activity, that is, placing money in a bank account for investment purposes.

There exists, however, a specific example of the first type of banking activity that should also be compared with an SRP. One important representative of the first type of banking activities is a *stand-by credit* that is also often necessary to enable the conclusion of special unconventional reinsurance forms such as *transfer of risk.*

A comparison of a stand-by credit with an SRP:

The similarities:

The service granted by a stand-by credit to the client can be divided into two parts.

One important part of the service is not the actual lending of money but putting a certain amount of money within a certain favorable frame at the disposal of the client, to be used by the client whenever needed. The other part is the actual lending of the money when needed. In the same way we can divide the service granted by an SRP reinsurance company to a ceding company into two parts. One part would be the conventional reinsurance part and the other all the unconventional by-products of an SRP. If we separate these by-products for a moment from all the reinsurance claims, we can find parallels to the service part of a stand-by credit that is the favorable placing of the credit at the disposal of the client, as distinct from the actual borrowing of the money.

In a stand-by credit the bank allocates money for the client within a certain frame, that is, up to a certain maximum amount and up to a certain time limit. Within this frame the client can determine if he wants to make use of the stand-by credit, for what amount of money, at what time and for how long. For this privilege, he has to pay a certain “premium”.

Similarly, an SRP reinsurer allocates a certain amount of money for the ceding company, which is the upper limit of coverage of the respective SRP.

However, the time of coverage is usually not fixed a priori and ends when one of the SRP partners cancels the treaty. A standard premium is paid annually to build up the CR fund, which usually reduces the risk and possibly the amount of risk for the reinsurance company and usually increases the upper limit of coverage of the reinsurance company as the CR fund grows. This is in contrast to a stand-by credit where the money put at the client’s disposal by the bank does not change over the course of time – as long as it is not used. It is also not possible to determine in a statistical way that the probability of the drawing of money by the client out of the stand-by credit changes in the course of time.

The differences between a stand-by credit and an SRP far outweigh the similarities:

1. A bank client can decide when, to what extent, and for how long he wishes to make use of the money that is allocated for him at the bank. An SRP client, on the other hand, can only partly decide when and to what extent to draw money (once a year) from the CR fund. Moreover, the client makes the withdrawal as

an intermediate result adjustment (IRA), when the fund is large enough in comparison to loss reserves, and when outstanding losses and the state of affairs allow the activation of the IRA. Usually, however, the withdrawing of money from the CR is due to fortuitous claims payments. These withdrawals are not dependent on the wishes of the client on whether to draw out money or not and they do not flow into the "client's pocket".

2. The money flow of a stand-by credit is – in the case that it is used - principally from the bank to the client and later back from the client to the bank.
   In the case of an SRP the money flows in the other direction, at the beginning mainly from the ceding company to the reinsurance company and later, due to random events to a withdrawal as an IRA or to cancellation of the treaty, mainly from the reinsurance company to the ceding company.
3. When taking up a stand-by credit the client can decide how to use, or invest the money that he is drawing, as opposed to an SRP, where the money, that is, the CR fund, is invested by the reinsurer – who books it as his reserves and is obliged not to invest it aggressively.
4. According to the terms of the stand-by credit the client has to return the money not later than a certain, fixed date. By contrast, the CR has to flow back, in full or in large part, from the reinsurance company to the client, that is, to the ceding company, as claims payments, intermediate result adjustments or final result adjustment. The time of such flow back is not fixed a priori.
5. The kind of risk run by a bank in case of a stand-by credit is principally different than the risk run by a reinsurance company in the case of an SRP. If the client has drawn money and becomes insolvent the bank may lose money. For the reinsurance company the same is true if it has already put money forward due to bad reinsurance results, that is, when the fund, including the income collected on the fund, is negative and at the same time the ceding company either becomes insolvent or cancels the treaty.
6. In the case that the client makes use of the stand-by credit, he has to pay a far higher interest rate on the amount of money drawn than if he invests that money in a riskfree investment in the same bank. In the case of the SRP, however, if the CR is negative and the reinsurance company puts money forward for its client, the ceding company does not have to pay a higher

interest rate for getting the money. The exact opposite is true – either no interest has to be paid at all or a low interest rate is due on the money put forward by the reinsurance company, which we have called the BPA (basic premium adjustment). Moreover, in the case of cancellation the ceding company does not have to return all the money that was put forward; it pays either nothing or only part of it, namely, the final result adjustment (FRA).

So far we have compared an SRP, which is an a priori cover, to a stand-by credit, "an a posteriori banking activity" which is often used to make certain (re)insurance covers possible. We have found the SRP and the stand-by credit activities to be mainly dissimilar.

To conclude this paper we are now switching for the comparison of banking activities with an SRP, from "a posteriori" to "a priori" banking activities, the a priori activities being those in which the client places his money in a bank for investment purposes. This will enable us to examine whether an SRP is rather an a priori (re)insurance or a banking operation.

The similarities between "a priori banking activities" and an SRP are more numerous and more substantial than the similarities between the "a posteriori banking activities" and an SRP that were described before and which we now summarize as follows:

A1. The direction of the capital flow is the same for investment activities and for an SRP. At the beginning it is from the client to the bank in the case of banking activities and mainly from the ceding company to the reinsurance company in the case of the SRP. In both cases the flow subsequently reverses at the end of the connection.

A2. As opposed to guarantees and borrowing activities of a bank, which are usually given in a fixed time frame, its investment operations are usually not bound a priori to time. In this respect the bank's investment operations are similar to an SRP cover. An exception is an investment in bonds for fixed conditions over a certain period of time, which can, however, often be extended, possibly at slightly different conditions.

A3. In an SRP, a ceding company is more than willing to put money at the reinsurer's disposal for investment and reinsurance activities, just as the investor puts money at the bank's disposal for investment activities. Since the ceding company's investment in an SRP fund also has to finance reinsurance cover

activities, the interest rates on the fund will usually be smaller than the interest rates that an investor gets in a bank.

In the case of "a priori banking activities", however, the differences between an SRP and an investment activity in a bank outweigh the similarities:

B1. The transfer of money in an SRP from a ceding company to its reinsurance company can be booked as a reinsurance premium and can be deducted from taxes since it is also used to cover insurance risks that are covered by the ceding company. By contrast, an investment in a bank is a pure investment activity and by no means an insurance activity, and it is, of course, not tax deductible.

B2. In contrast to an SRP ceding company, the investor in a bank has neither the motive to get insurance covers nor the incentive to get the money invested recognized as tax deductible.

B3. Contrary to an investor in a bank, a ceding company covered by an SRP cannot choose what amount it wants transferred to the reinsurance company as a premium at the beginning of each period of coverage. The premium depends on the reinsurance cover, on the cover that the reinsurance company is ready to accept, and on the level of the cumulative result, that is, on the accumulated claims experience up to the beginning of the respective new period of coverage.

B4. An investor usually invests his money irregularly, as opposed to an SRP ceding company, which has to pay its standard premiums regularly, at the beginning of each period of coverage.

Comment

Properties B1. – B4. show that a ceding company wishing to be covered by an SRP has a more extensive range of motives and incentives than an investor of money in a bank. At the same time, it is much more bound to rules and restricted in its freedom of investment than is the investor in the bank.

Final remark:

The comparisons we have made clearly show that although the ceding company has investment motives and other motives beyond reinsurance covers when it investigates the option of an SRP coverage – if it indeed opts for the SRP it gets a reinsurance coverage with many specific reinsurance characteristics that restricts its investment possibilities to an extent that does not contradict the reinsurance character of the SRP!