CAPTIVE AS AN INSURANCE FORMULA
FOR RISK MANAGEMENT: ADVANTAGES AND DISADVANTAGES

This article introduces subject of an insurance captive entity, with focus on how it could be used as insurance formula for risk management. Captive might be the most appropriate insurance formula for risk management. However, the level of achieved success depends on many factors. Insurance captives are understood as entities which are formed and owned by companies mostly for the purpose of insuring own risks (pure captive or single parent captive). More and more often captives are also formed by a group of companies (group captives) to insure their properties and liabilities towards 3rd parties. Captives are widely used by many companies nowadays. However, many of them are used solely for a purpose of a risk cession and premium transfer, with an intention to use captives more as a profit center in a low taxation country rather than for the purpose of risk management (i.e., a more appropriate role for captive would be to support their owners in enterprise risk management – ERM).

This article touches on why captives are not used to their full potential. It may be too challenging for many decision makers to embrace on captives as risk management formula and extend captives’ roles to utilize all possible advantages resulting from owning a captive.

Captive can deliver risk management in a more comprehensive way than most commercial insurers on the market. The article also presents advantages and disadvantages of owning an insurance captive.

Key words: captive insurance company, group captive, captive domicile, risk, risk management.

Introduction: What is a captive? The term captive is used nowadays in a few different meanings. In finance and insurance context it is mostly used in the following two meanings: a captive finance company is a subsidiary whose purpose is to provide financing to customers buying the parent company’s products or a captive insurance company as a subsidiary that provides risk mitigation services for its parent company or fora group of companies (captive owners).

There are obviously many more formal and more detailed definitions, which come from either international organizations (i.e., OECD) or from particular countries’ tax and insurance legal regulations (domiciles) or else from within insurance theory.

OECD understands captive as “a wholly owned subsidiary of a multinational group of companies which exclusively insures or reinsures the risks of companies that belong to the group. A captive insurance company is usually established in a low-tax country”. Whether premiums paid to captive insurance companies by their owners are recognized as business expenses depends on the tax laws of a captive owner [1].

Moving beyond the meaning of captive as defined by OECD or domiciles’ legal systems, the writers believe that captive does not have to be neither owned by an international group of companies nor does it have to insure exclusively against risks of its owner. In fact, it is often contrary because in certain jurisdictions (i.e., in the USA) local tax authorities demand that premiums paid into a captive can only be recognized as a legitimate business expense when there is a sufficient risk shifting and risk distribution between different lines of insurance and different risk owners (meaning, sources of risks come from different activities of different owners), i.e., it was the case according to the court judgment in 1991 for Harper Group case, in which context the OECD definition is not correct [2].

As an insurance entity, captive is formed by its parent company (or group of companies) for the purpose of insuring its own business (more rarely also to insure third party business, except for the US and/or group captives). Insurance captive more and more often also plays roles, in which it is used as insurance formula for risk management.

Captives used for business purposes have a long tradition. Some insurance writers go back to ancient times in a search for similarities between contemporary group captives’ owners and traders travelling in those days in convoys and self-insuring as a group the common business voyage.

In the modern times, Frederic M. Reiss brought a term “captive” and a concept of owning an insurance company into practice for his first client, the Youngstown Sheet & Tube Company in Ohio in the 1950s. Later on, F.M. Reiss created the first captive management company, International Risk Management Limited (IRML) in 1962 in Bermuda to provide administration services of his clients’ captives (IRML is now part of Aon Corporation).

Another term that is closely connected with insurance and reinsurance captives is a domicile.

Domicile of captive is a tax jurisdiction where business income taxes and other fees are paid by insurance captives. Insurance captives are often licensed as reinsurance captives (certain domiciles offer different types of a license for reinsurance captive activities). These reinsurance captives effectively reinsure risks of captive owners, which are placed with country insurers all over the world. Local country insurers act as fronting insurers for reinsurance captives. Local country insurers usually take a small risk on their books (risk sharing takes place between fronting insurer and reinsurance captive) and the rest of a risk is fully reinsured by a captive. Re-insurance captive pays a fronting fee for that service (which includes local claims handling services provided by local insurer).

Domicile can mean a country but it could also mean a certain part of a federal country i.e., a State within the USA.

Captive can write all kinds of insurance risks, including non-life and life (employee benefits). These can also include new kind of risks like cyber risks, supply chain risks, reputational risk and even space risk (vide new captive created by Elon Musk) as well as many others.
Even when captives are not able to insure certain risks, they can **support captive owners with typical risk management tasks** such as:

1. Identifying risks
2. Analyzing risks
3. Evaluating and ranking risks
4.Treating risks
5. Monitoring and reviewing risks

Next, captives are able to support their owners with the development of a strategy to manage risks, which typically include:

1. Risk acceptance and management of retained risks
2. Risks avoidance
3. Risk mitigation (reducing potential negative effect or a probability of risk occurrence)
4. Ceding all or part of the risk to another party (i.e. from captives to reinsurers)
5. Exploiting risks (turning negative risks into positive opportunities)

For the purpose of this article, a **risk** is understood as:

i) probability of materializing of an undesirable event and

ii) probability of loss occurrence (as a result of that event), which violates interest of an entity and is always in reference to particular events, which when materialize lead to a possibility of causing losses.

**While risk management** in practice is stimulating:

i) probability of materializing of particular undesirable events and

ii) such influencing the course of undesirable events that their effects do not violate interests of those that are subjects to them" [3].

Every company faces uncertainty and risk. In Frank Knight's work "Risk, Uncertainty and Profit", the author expressed opinion that uncertainty is **not** measurable (non-quantitative) but risk can be measured (probability). The sources of uncertainty are not defined and therefore next to impossible to be measured. However, any new information received can remove or reduce uncertainty. "New information also provides the risk manager greater insights into the risks facing the enterprise. The organizational treatment of information and systematic approach to learning are key competencies" [4].

In August of 2004, the Treadway Commission's Committee of Sponsoring Organizations (COSO) issued its **Enterprise Risk Management** (ERM) – Integrated Framework after three year project was completed. It is widely believed that ERM implementation should be considered as the one that needs to be integrated with a company strategy-setting [5].

Aligning risk management with a company strategy is based on selecting those risks which decision makers agree as identified and/or acceptable and/or those that management believes in as the ones that can bring attractive opportunities. However, besides the so-called explicit risk, there are also implicit ones which play a key part in active risk management. There are also embedded risks that are hidden and more difficult to be identified. The setting of company strategy in risk management should consider a decision on whether or not to form an insurance captive or more actively using an existing captive for risk management purposes. Captive should become part of a company insurance strategy towards risk management.

Insurance captives can support their owners in their Enterprise Risk Management (ERM) programs because of the following reasons:

I. Captives should have good recognition of what risks can be insured and/or self-insured. This is on a condition that a captive fulfills its role well and has a better risk recognition than most other commercial insurance entities. ERM is about understanding balance sheet management and how to manage risks.

II. Boards of management of insurance captives consist of people with cross industry experiences and backgrounds. Appropriate ERM should be addressed through focused internal resources, including board members. The broad business views are always necessary to manage company risks.

III. Most captives manage claims professionally. Many captives also manage claims with utmost efficiency because they are managed to the benefit of captive owners. Claims management expertise is needed to implement a successful ERM strategy.

IV. Captives are qualified at risk quantification and pricing. Good pricing knowledge is needed for the risks to be priced appropriately; also when a risk may seem as uninsurable in the commercial marketplace, it may very well be insurable on reinsurance market, after a certain part of is retained by captive.

The most comprehensive work published on captives was written by P. Bawcutt "Captive Insurance Companies" (four editions in total). The work, besides covering the topics of why captives are formed, discussed formulas of their activities, examined operations of captives and covered many organizational, legal and tax issues. It also described many of the captives' domiciles in the world (however this is the state of knowledge for 1996) [6].

One of the largest international researches conducted on captives in the most recent years, which also covers usage of captives for risk management purposes in international insurance programs was Global Risk Management Survey conducted by AON in 2015 [7]. However, overall, the state of knowledge on the activities of insurance captives is limited and dispersed (especially taking into account the large number of active captives in the world in approximately 70 different domiciles). There is a serious gap in the scope of knowledge on captives (especially amongst European and Asian companies), which decreases opportunity to understand why captives play such an important role on the US insurance market and what can be learned from it for other countries, where captives are less popular or not present at all.

**The main characteristics/market data for insurance captives** [8]

There are approximately 7000 registered and presumably active captive insurers worldwide. Most of them (75%) are owned by US companies. 90% of Fortune 500 companies own insurance captives.

Captives are formed in many domiciles around the world of which the most popular in North America are Bermuda, the US states of Vermont and Utah, and Cayman Islands, while in Europe, most captives are registered in Guernsey, Isle of Man, Luxembourg and Dublin [9].

Reasons for above locations (domiciles) are special local captive law, tax regulations and availability of captive experts (captive management companies).

Insurance captives (and reinsurance captives) are either so called "managed captives" or "standalone captives". Most captive management is outsourced to captive management companies that are located in domiciles that hold the primary licenses for captives. On the other hand, so called "standalone captives" have own management and employees, which means they are not managed by third parties.
Captive (can) play important role as insurance formula for risk management in the operations of their owners. Insurance formula of captives carries many peculiar advantages and some disadvantages specific for this type of insurance activity.

Advantages of captives. There are many reasons why companies decide to form own insurance organizations (captive insurers). Behind each of them there are financial and/or operational reasons. Depending on particular captive’s domicile, there may be also very reasonable capitalization requirements, which could be met with i.e. a letter of credit (in the USA or Caribbean). In the EU, a couple of domiciles offer a legal solution called “cell captives”, which require lower amount of paid in capital, as long as no third party insurance business is written. As a rule no minimum written premium is required for captives (in many domiciles) and insurance company may range of all commercial lines – property and liability, including workers’ compensation, directors and officers can be written (also supply chain risks, cyber risk, reputation risk and many other kinds of insurance that cannot be easily found on the market). One of important reasons for captive formation is more and more an opportunity to use it for risk management purposes – according to AON Global risk management survey [10].

More about captive advantages in detail:

Captive as a formula for risk management and an incentive for loss control (Enhanced Loss Prevention and Claims Management). The advantage of risk management role of captive should be interesting for every responsible company with knowledgeable risk management that has taken a conscious decision to form captive in order to fully explore it for risk management purposes. This is the case for companies that understand captive role as solution that goes beyond a mere profit center registered in a lower tax domicile. Retaining risks does not bring uncertainty for those who think of opportunities rather than threats. The motivation for enhanced loss prevention and improved claims management comes from the fact that captive’s technical result becomes at the end the direct financial benefit for the captive owner.

Remedy for high costs of insurance for a particular risk(s). Captives are often set up when the situation on an insurance marketplace is such that owning a captive becomes a better a common sense alternative in order to escape from very high costs of insurance programs. It is especially an easy decision for those companies that are aware of their loss history and those that take actions on risk mitigation and therefore are much better in managing risks than other companies operating in the same type of industry.

Tax regulations, which do not allow companies to maintain untaxed reserves against future losses. One of the main reasons why many companies decide to form separate entities for risk management (captive) are because of the tax laws, which do not allow any company to maintain untaxed reserves for future losses. Insurance captives solve this problem because insurance reserves can be held by captives for as long as required, the funds can be invested and taxes do not have to be paid for as long as these funds stay as insurance reserves.

Lack of availability of insurance protection against certain risks. Insurance availability becomes an issue for certain types of risk – i.e. relatively new cyber risks or supply chain risk or specialized liability covers or reputational risk – may not be available at all. Captives can solve this availability problem by insuring companies against those risks under a cover that is designed especially for captive owner and reinsured on an excess of loss bases.

Insurance coverage tailored to needs. Many companies conduct their businesses in specific conditions, territories and/or in unusual types of business activities. Specific covers may be available on the general market but not with an exact scope of cover needed. Owning a captive should mean that the risks are recognized and managed exactly as needed by captive owner.

Reducing operating costs. Commercial insurers’ business costs are very high. Marketing, commissions, administrative and management costs can make total operating costs exceeding level of 30 % of earned premium. After adding expected profit margin in many lines of insurance business overall spent is so high that less than 60 % of premium earned is left for any future claims to be paid. Captive insurers do not have such high costs. As a rule they are located in the territories with lower labor costs and lower corporate income tax. Administrative costs of captives are kept at a bare minimum (often administrative part is outsourced to lean captive management organizations) and in the case of captives there are no distribution costs (neither marketing nor commission to intermediaries because a rule there is no need for an insurance intermediary to be used in a captive structure). However, for the captives located in the European Union the costs of doing business may not need to be significantly lower. Adjusting to Solvency II and BEPS requirements means more capital and higher costs to small(er) captives. External captive consultants may also be quite expensive in the EU, however, overall, when compared to traditional commercial insurer there is usually no need to keep insurance intermediary in the structure, which saves at least 10 % of the premium. Besides the above, all incurred costs by captive are fully transparent, which means they can be managed, including also costs generated in the claims handling process. This is almost never the case with commercial insurers due to their complete lack of transparency (as a rule).

Improved cash flow. Improvements in cash flow are result of intended flexibility with regards to premium payments written in insurance agreements concluded between captive owner and captive insurer. Insurance premiums need to be paid into captive, but the terms of premium payment do not have to be as rigid as they usually are in the case of commercial insurers (i.e. all premium to be paid up front) and scheduling premium payments into install-

Table 1. Number of insurance captives worldwide

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of insurance captives worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>4951</td>
</tr>
<tr>
<td>2007</td>
<td>5119</td>
</tr>
<tr>
<td>2008</td>
<td>5211</td>
</tr>
<tr>
<td>2009</td>
<td>5525</td>
</tr>
<tr>
<td>2010</td>
<td>5587</td>
</tr>
<tr>
<td>2011</td>
<td>5831</td>
</tr>
<tr>
<td>2012</td>
<td>6125</td>
</tr>
<tr>
<td>2013</td>
<td>6412</td>
</tr>
<tr>
<td>2014</td>
<td>6839</td>
</tr>
<tr>
<td>2015</td>
<td>6939</td>
</tr>
</tbody>
</table>

Source: Business insurance survey
ments do not need to i.e. carry any cost of financing of premium, which can be paid in line with insurer's time on risk.

Underwriting flexibility. Captive as a risk underwriter should be fully aware of the overall risk profile of its owner's business as well as of detailed risk characteristics of its operations. Only, then captive will be in the best position to assess the risks, calculate adequate premiums and to advise on how to avoid or modify risks in order to lower the probability of a loss occurrence. That becomes reality only when captive's representatives are able to have a fully open and trustful discussion about risks, scope of cover and pricing.

There is balance sheet protection (of captive owner) because an insured loss is born by captive itself. This is on a condition that captive is properly capitalized and reinsured and pays claims on time. When risk materializes, the balance sheets of insured companies are protected since loss is borne by its captive insurer.

Earning full technical result from insurancactivity when insurance risks are in-sourced by captive (or group captive). Depending on an agreement with a commercial insurer – it may also share some technical result in the case when few losses occur or they occur at a lower value than a predefined one stipulated in insurance contract. However, commercial insurer will never share 100% of the positive net underwriting results like captives do and it often overstate reserves needed in order to present results lower than they really are.

Premium stability. When loss ratio is higher than what commercial insurer expects (and both parties contractually agreed to), i.e. as part of bonus-malus it is very likely it will charge increased premium at the time of policy renewal. On the other hand, captives do not have to impose premium increases in the same way. The relationship is different between both parties; especially so, because both are aware they're very likely to continue to work together in the future as one owns the other. As a result, solutions like retrospective premium are also more likely to be used by captives and their owner (i.e. to decrease impact of insurance premium taxes).

Direct access to reinsurance market. Insurance captives have direct access to reinsurance market, which is not accessible for regular policyholders. Buying higher sums insureds (policy limits) from reinsurers, on one hand it can deliver insuranced protection at a lower cost than normally purchased owner as well) while on the other hand it can deliver insurance protection at a lower cost than normally purchased in a particular domicile. Over time, captive accumulates earnings (in excess loss reserves) and uses them to increase capital account.

Excessive costs of forming a captive and its later management. Captive needs to be viewed as an investment with proper return. ROE [Return on equity] calculations need to be made. Therefore, any prospective captive owner needs to be aware of all potential costs of forming a captive upfront (the costs' side is one of the crucial elements of the detailed business case) as well as its future management costs (whether management is going to be outsourced or not?). There are many different managers or consulting firm available on the marketplace that charge fees (sometimes relatively high fees), which may also exceed what had been anticipated before a decision on captive formation was made.

Inexperienced captive management. It is quite conceivable that company forming a captive, instead of hiring a professional executive to manage it (or experience external captive management company), decides to assign this role to a manager within a company (captive owner). Sometimes, inexperienced captive management (including supervisory board) is regarded as not so relevant when many of captive's services, including captive management are outsourced to professionals. Question is what happens when captive management is not outsourced and captive does not have professional captive executive truly engaged in the role? Could such a captive be still considered as a serious risk manager for its owner, directors and officers? With the exception of rental or cell captives, many captives are run nowadays by people who have never managed an insurance company before. Single-parent and group captive directors and officers must then rely on the knowledge and experience of staff and/or external consultants. When this takes place, almost always captive employees may not have desirable risk management experience, also in relation to specifics of captive owner's business and as a result, the whole idea and an approach to captive as insurance formula for risk management maybe questionable?

Lack of risk management advice from captive to its owner. In line with the above points, it is extremely important for captive to employ professionals in risk management area or have them accessible from external captive management company. If captive management services are out-sourced, it is mandatory to have a competent risk manager – working for a company owning a captive – who will know, not only the explicit risks but also have the ability to discover and manage implicit risks, and will also be aware of how to utilize captive to its full potential.

Substandard returns on investment or return on equity. It is up to each company to define what constitutes "substandard" return for its businesses. There are wide varieties of investments vehicles through which captive's assets can earn a very decent rate of return. There might also be better potential returns to be achieved through other business activities rather than by investing in captive insurance entity. Investment returns' needs are to be determined by company management before a decision on captive formation is made.

Tax challenges for captive owner (in country of its headquarters). Insurance premiums paid to captives have been challenged many times in the past, particularly by the Internal Revenue Service in the USA. There have been many court cases, which were not always won by captive
 owners. The two recent positive rulings came out in 2014 [12]. Two Tax Court rulings stated that parental guarantee given to captive by its parent cannot be held as an argument against actual risk sharing taking place. Secondly, court adopted the position that risk distribution depends on presence of sufficient number of individual risks and not on the number of insureds. Legal and fiscal issues are of utmost importance and need to be taken very seriously as they can inhibit captive’s growth or even lead to its closure and tax problems to its owner.

Changing regulations (i.e. tax interpretations on premium deductibility from IRS, Solvency II, BEPS etc.). Depending on domicile of captive owner and domicile of captive itself, regulations may be more or less friendly to owning captive and they can change more or less frequently. Nevertheless, changes in the regulations are something that always needs to be watched for. Certain changes arise as applicable only to a particular domicile but many of them originate on EU level or even more international level i.e. BEPS rules coming from OECD, which affect many if not all domiciles worldwide. Solvency II rules affect EU domiciles but certain domiciles outside of the EU (on voluntary bases) adapted to it as well.

Remote locations. If we assume i.e. Japanese captive owner that formed its captive i.e. in Bermuda, then some operational challenges may be foreseeable both entities. They start from perhaps less significant time zone differences, affecting operations between two or more company locations, but then need to also encompass performing company audits and also supervisory management board meetings. There are local auditing firms in every captive domicile and supervisory board meeting do not always have to take place in domicile (depending on tax requirements) but a very remote location of captive can become an issue that becomes disadvantage to its owner.

Conclusion: The subject of utilizing insurance captive as insurance formula for risk management is a relatively new one. Analyses of insurance captive efficiencies and opportunities coming from owning captive are important for both – academic and practical business aspects. Knowledge of potential advantages and disadvantages of captives is also crucial as it affects present and future captive operational improvements and overall performance. In most of the countries studies of captives as tools for risk management purposes are not catching up with the needs – in particular, studies of captives as tools for risk management purposes do not always have to take place in domicile (depending on tax requirements) but a very remote location of captive can become an issue that becomes disadvantage to its owner.

References

Date of editorial approval 15.03.17

Author’s declaration on the sources of funding of research presented in the scientific article or of the preparation of the scientific article: budget of university’s scientific project
В статье рассматривается страховая копилка с учетом того, как она может быть использована в качестве страховой формулы для управления рисками. Копилка может быть наиболее целесообразной страховой формулой для управления рисками. Однако уровень достигнутого успеха зависит от многих факторов. Страховые копилки это субъекты, которые формируются и принимаются компаниями, а также создают группы компаний (капитальные копилки), чтобы застраховать их имущество и обеспечить гарантии перед третьими лицами.

Копилка широко используется многими компаниями в настоящее время. Тем не менее, многие из них используются исключительно для целей цедирования риска и передачи премий за риск, чтобы использовать копилку больше как центр прибыли в стране с низким уровнем налогообложения, а не для целей управления рисками (т. е. более приемлемой ролью для копилки могла бы быть поддержка их владельцев в сфере управления рисками предприятий).

Эта статья раскрывает, почему копилки не используются с учетом их полного потенциала. Это может быть слишком сложно для многих субъектов, принимающих решения, чтобы охватить копилку как формулу риска-менеджмента и расширить значимость копилки вплоть использования всех возможных преимуществ, связанных с владением копилкой.

Копилка может обеспечить управление рисками более комплексно, чем большинство коммерческих страховых контор. В статье также представлены преимущества и недостатки владения страховым копилкой.

Ключевые слова: копилка страховая компания, групповой копилки, домицилийский копилка, риск, управление рисками.

Introduction. In the process of risk transmission from the reinsured person to the reinsurer on the basis of concluding an agreement between them, the process of buying and selling a service – reinsurance protection takes place, the reasonable cost of such protection is determined, the supply and demand for it are formed.

The purchase and sale of a reinsurance service allows some reinsurance participants (reinsured persons) to obtain additional financial guarantees (the compensation of the part of liability for a risk by the other subject) for the implementation of their own obligations under the insurance contracts, and other participants (reinsurers) – to expand their own portfolio by reinsuring the part of new objects of the insurance field.

According to par. 2 of the Law of Ukraine “On insurance” [1], reinsurance along with insurance and the activity related to the formation and use of insurance reserves, relates to the direct business of the insurers, namely it is allocated in a separate area of the insurer activity, but there is no definition of the reinsurance service essence in Ukrainian legislation.

In its essence, a reinsurance service is a financial service, as it shows the redistribution of responsibility for the insured financial risk and provides the financial relationship between the reinsured person and the reinsurer.

WTO member states apply the financial services classification according to the GATS (General Agreement on Trade in Services) standards, adopted in 1995, which includes the reinsurance service to the insurance services, which relates to financial services (Table 1).

<table>
<thead>
<tr>
<th>№</th>
<th>Type of insurance services</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Direct insurance</td>
</tr>
<tr>
<td>A</td>
<td>Life insurance</td>
</tr>
<tr>
<td>B</td>
<td>Non-life insurance</td>
</tr>
<tr>
<td>II</td>
<td>Reinsurance and retrocession</td>
</tr>
<tr>
<td>III</td>
<td>Insurance intermediation, including brokerage and agency</td>
</tr>
<tr>
<td>IV</td>
<td>Auxiliary insurance services</td>
</tr>
</tbody>
</table>

Table 1. The insurance services classification according to GATS claims

© Tretiak K., 2017